Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Location	Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	(No Impact) Pedestrian Load MAX	(No Impact) Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capacity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Upper Chord	Structure 1																																													
	U_1 - U_2	-71.64	19.14	-54.01			0.90	1.00	17.23	-48.60	0.00	0.00	Vehicle	Vehicle	-----	-198.44	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	6.09	10.16
	U_2 - U_3	-90.83	38.59	-95.13			0.90	1.00	34.73	-85.62	0.00	0.00	Vehicle	Vehicle	-----	-303.58	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	3.33	5.54
	U_3 - U_4	-61.13	57.14	-119.49			0.90	1.00	51.43	-107.54	0.00	0.00	Vehicle	Vehicle	-----	-312.48	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	2.81	4.69
	U_4 - U_5	10.71	74.63	-124.53			0.90	1.00	67.17	-112.07	0.00	0.00	Vehicle	Vehicle	159.44	-228.91	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	5.90	9.83	3.08	5.14
	U_5 - U_6	12.86	75.02	-124.00			0.90	1.00	67.52	-111.60	0.00	0.00	Vehicle	Vehicle	163.01	-225.07	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	5.85	9.75	3.11	5.18
	U_6 - U_7	121.37	86.46	-79.62			0.90	1.00	77.81	-71.66	0.00	0.00	Vehicle	Vehicle	326.38	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	4.24	7.06	-----	-----
	U_7 - U_8	249.49	95.35	-28.02			0.90	1.00	85.81	-25.22	0.00	0.00	Vehicle	Vehicle	510.27	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	3.88	6.47	-----	-----
	U_8 - U_9	376.92	127.37	-7.67			0.90	1.00	114.63	-6.90	0.00	0.00	Vehicle	Vehicle	738.37	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	3.84	6.40	-----	-----
	U_9 - U_{10}	319.74	122.34	0.00			0.90	1.00	110.11	0.00	0.00	0.00	Vehicle	Vehicle	654.22	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	3.37	5.62	-----	-----
	U_{10} - U_{11}	128.77	75.07	-16.36			0.90	1.00	67.56	-14.72	0.00	0.00	Vehicle	Vehicle	313.78	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	-----	-----	42.67	-----	-----	10.67	-----	-----	5.15	8.59	-----	-----
	U_{10} - U_{11}	-70.90	68.64	-78.77			0.90	1.00	61.77	-70.89	0.00	0.00	Vehicle	Vehicle	-----	-245.78	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.46	7.43
	U_{11} - U_{12}	-252.96	61.59	-136.59			0.90	1.00	55.43	-122.93	0.00	0.00	Vehicle	Vehicle	-----	-595.20	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	2.73	4.55
	U_{12} - U_{13}	-391.95	53.31	-185.79			0.90	1.00	47.98	-167.21	0.00	0.00	Vehicle	Vehicle	-----	-871.82	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	44.60	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	2.68	4.46
	U_{13} - U_{14}	-482.99	44.84	-219.87			0.90	1.00	40.35	-197.88	0.00	0.00	Vehicle	Vehicle	-----	-1056.64	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.73	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.56	4.27
	U_{14} - U_{15}	-454.44	44.67	-220.00			0.90	1.00	40.21	-198.08	0.00	0.00	Vehicle	Vehicle	-----	-1058.78	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.68	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.55	4.26
	U_{15} - U_{16}	-502.02	34.35	-207.35			0.90	1.00	30.91	-186.62	0.00	0.00	Vehicle	Vehicle	-----	-1056.96	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.72	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.65	4.42
	U_{16} - U_{17}	-467.99	24.97	-179.31			0.90	1.00	22.47	-161.38	0.00	0.00	Vehicle	Vehicle	-----	-958.04	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.20	5.33
	U_{17} - U_{18}	-368.86	15.40	-130.36			0.90	1.00	13.86	-117.32	0.00	0.00	Vehicle	Vehicle	-----	-733.71	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	44.92	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	3.08	5.13
	U_{18} - U_{19}	-251.56	7.65	-79.56			0.90	1.00	6.88	-71.61	0.00	0.00	Vehicle	Vehicle	-----	-482.17	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	3.57	5.95
	U_{19} - U_{20}	-117.89	1.79	-28.42			0.90	1.00	1.61	-25.58	0.00	0.00	Vehicle	Vehicle	-----	-208.68	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	13.13	21.88
	Structure 2																																													
	U_1 - U_1	-118.23	8.76	-46.42			0.90	1.00	7.88	-41.77	0.00	0.00	Vehicle	Vehicle	-----	-244.21	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	7.60	12.67
	U_1 - U_2	-239.56	20.07	-97.89			0.90	1.00	18.06	-88.10	0.00	0.00	Vehicle	Vehicle	-----	-502.32	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.76	6.26
	U_2 - U_3	-350.44	33.38	-149.00			0.90	1.00	30.04	-134.10	0.00	0.00	Vehicle	Vehicle	-----	-746.12	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.69	4.00	0.69	16.00	99.35	272.00	30.22	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.25	5.42
	U_3 - U_4	-439.40	49.61	-199.07			0.90	1.00	44.65	-179.16	0.00	0.00	Vehicle	Vehicle	-----	-972.07	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.99	4.98
	U_4 - U_5	-483.26	63.10	-236.38			0.90	1.00	59.25	-212.74	0.00	0.00	Vehicle	Vehicle	-----	-1089.17	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.83	4.72
	U_5 - U_6	-485.85	82.93	-264.95			0.90	1.00	74.63	-238.46	0.00	0.00	Vehicle	Vehicle	-----	-1148.26	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.33	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.52	4.20
	U_6 - U_7	-428.85	97.82	-270.06			0.90	1.00	88.04	-243.05	0.00	0.00	Vehicle	Vehicle	-----	-1084.12	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	43.32	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.25	3.75
	U_7 - U_8	-428.37	98.05	-269.78			0.90	1.00	88.24	-242.80	0.00	0.00	Vehicle	Vehicle	-----	-1082.95	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	43.34	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.26	3.76
	U_8 - U_9	-335.42	111.96	-241.14			0.90	1.00	100.76	-217.02	0.00	0.00	Vehicle	Vehicle	-----	-906.26	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	43.41	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	2.19	3.64
	U_9 - U_{10}	-200.29	120.61	-191.33			0.90	1.00	108.55	-172.20	0.00	0.00	Vehicle	Vehicle	-----	-633.47	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	2.39	3.98
	U_{10} - U_{11}	-52.14	127.55	-133.73			0.90	1.00	114.80	-120.36	0.00	0.00	Vehicle	Vehicle	180.94	-328.55	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	5.03	8.39	3.58	5.96
	U_{11} - U_{12}	107.02	126.68	-68.61			0.90	1.00	114.01	-61.75	0.00	0.00	Vehicle	Vehicle	386.15	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	4.23	7.05	-----	-----
	U_{12} - U_{13}	259.33	125.23	-37.31			0.90	1.00	112.70	-33.58	0.00	0.00	Vehicle	Vehicle	581.32	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	4.68	7.81	-----	-----
	U_{13} - U_{14}	391.98	177.13	-22.77			0.90	1.00	159.41	-20.49	0.00	0.00	Vehicle	Vehicle	854.97	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.41	7.35	-----	-----
	U_{14} - U_{15}	439.40	186.58	-2.52			0.90	1.00	167.92	-2.26	0.00	0.00	Vehicle	Vehicle	935.65	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.02	6.70	-----	-----
	U_{15} - U_{16}	369.66	145.30	0.00			0.90	1.00	130.77	0.00	0.00	0.00	Vehicle	Vehicle	763.89	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	4.14	6.90	-----	-----
	U_{16} - U_{17}	271.39	103.56	-6.17			0.90	1.00	93.21	-5.55	0.00	0.00	Vehicle	Vehicle	554.76	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	4.97	8.29	-----	-----
	U_{17} - U_{18}	171.75	107.57	-43.64			0.90	1.00	96.81	-39.28	0.00	0.00	Vehicle	Vehicle	433.03	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	3.68	6.14	-----	-----
	U_{18} - U_{19}	72.78	110.26	-93.80			0.90	1.00	99.24	-84.42	0.00	0.00	Vehicle	Vehicle	309.63	-88.30	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	4.19	6.99	5.12	8.53
	U_{19} - U_{20}	-8.11	113.54	-140.17			0.90	1.00	102.18	-126.15	0.00	0.00	Vehicle	Vehicle	210.85	-283.87	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	4.86	8.11	3.26	5.43
	U_{20} - U_{21}	-60.13	114.76	-177.12			0.90	1.00	103.28	-159.41	0.00	0.00	Vehicle	Vehicle	145.61	-423.54	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.11	10.18	2.92	4.87
	U_{21} - U_{22}	-82.18	115.54	-200.80			0.90	1.00	103.98	-180.72	0.00	0.00	Vehicle	Vehicle	118.45	-498.41	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.20	10.33	2.51	4.18
	U_{22} - U_{23}	-82.40	115.64	-200.83			0.90	1.00	104.08	-180.75	0.00	0.00	Vehicle	Vehicle	118.38	-498.75	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.19	10.32	2.50	4.17
	U_{23} - U_{24}	-65.94	114.04	-185.92			0.90	1.00	102.64	-167.32	0.00	0.00	Vehicle	Vehicle	136.65	-448.26	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.18	10.30	2.76	4.61
	U_{24} - U_{25}	61.51	111.83	-156.09			0.90	1.00	100.65	-140.48	0.00	0.00	Vehicle	Vehicle	194.72	-327.72	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	5.00	8.33	2.88	4.80
	U_{25} - U_{26}	55.02	107.25	-109.36			0.90	1.00	96.53	-98.43	0.00	0.00	Vehicle	Vehicle	280.67	-141.73	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	4.42	7.37	4.28	7.14
	U_{26} - U_{27}	136.02	102.68	-56.82			0.90	1.00	92.41	-51.13	0.00	0.00	Vehicle	Vehicle	377.04	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	4.09	6.82	-----	-----
	U_{27} - U_{28}	216.87	96.09	-17.97			0.90	1.00	86.48	-16.17	0.00	0.00	Vehicle	Vehicle	469.31	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	5.74	9.56	-----	-----
	U_{28} - U_{29}	293.76	142.51	-5.59			0.90	1.00	128.26	-5.03	0.00	0.00	Vehicle	Vehicle	659.78	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	4.58	7.63	-----	-----
	U_{29} - U_{30}	358.11	192.32	0.00			0.90	1.00	173.09	0.00	0.00	0.00	Vehicle	Vehicle	840.57	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.18	6.97	-----	-----
	U_{30} - U_{31}	339.33	194.18	0.00			0.90	1.00	174.76	0.00	0.00	0.00	Vehicle	Vehicle	819.78	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.21	7.01	-----	-----
	U_{31} - U_{32}	251.17	146.64	-11.55			0.90	1.00	131.97	-10.39	0.00	0.00	Vehicle	Vehicle	612.46	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Axial Force Rating

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	(No Impact) Pedestrian Load$_{MAX}$	(No Impact) Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Tension Member: Inventory RF	Tension Member: Operating RF	Comp. Member: Inventory RF	Comp. Member: Operating RF
North Truss - Lower Chord	Structure 1																																													
	L_0 - L_1	4.85	7.69	-4.32			0.90	1.00	6.92	-3.89	0.00	0.00	Vehicle	Vehicle	21.29	-----	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**43.18**	**71.97**	-----	-----
	L_1 - L_2	74.27	53.09	-22.79			0.90	1.00	47.78	-20.51	0.00	0.00	Vehicle	Vehicle	200.07	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**5.38**	**8.96**	-----	-----
	L_2 - L_3	97.77	90.46	-42.61			0.90	1.00	81.41	-38.35	0.00	0.00	Vehicle	Vehicle	303.49	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**4.21**	**7.01**	-----	-----
	L_3 - L_4	66.93	114.46	-61.06			0.90	1.00	103.02	-54.95	0.00	0.00	Vehicle	Vehicle	310.21	-----	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**3.50**	**5.84**	-----	-----
	L_4 - L_5	-108.46	75.29	-91.01			0.90	1.00	67.76	-81.90	0.00	0.00	Vehicle	Vehicle	-----	-318.46	1.95	23.40	21.4500	772.20	131.71	10.7181	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**2.87**	**4.78**
	L_5 - L_6	-237.28	24.91	-100.10			0.90	1.00	22.42	-90.09	0.00	0.00	Vehicle	Vehicle	-----	-503.66	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	44.65	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**2.81**	**4.69**
	L_6 - L_7	-362.27	0.98	-140.23			0.90	1.00	0.89	-126.21	0.00	0.00	Vehicle	Vehicle	-----	-744.39	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	43.97	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**2.77**	**4.62**
	L_7 - L_8	-478.66	0.00	-191.14			0.90	1.00	0.00	-172.02	0.00	0.00	Vehicle	Vehicle	-----	-994.97	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	42.87	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**2.51**	**4.19**
	L_8 - L_9	-477.02	0.00	-195.33			0.90	1.00	0.00	-175.79	0.00	0.00	Vehicle	Vehicle	-----	-1001.01	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	42.74	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**2.47**	**4.11**
	L_9 - L_{10}	-301.43	0.00	-138.56			0.90	1.00	0.00	-124.71	0.00	0.00	Vehicle	Vehicle	-----	-662.05	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.10**	**5.16**
	L_{10} - L_{11}	-104.46	20.75	-79.83			0.90	1.00	18.67	-71.85	0.00	0.00	Vehicle	Vehicle	-----	-291.47	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**3.31**	**5.51**
	L_{11} - L_{12}	97.11	51.41	-61.48			0.90	1.00	46.27	-55.33	0.00	0.00	Vehicle	Vehicle	226.49	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	**6.44**	**10.74**	-----	-----
	L_{12} - L_{13}	268.74	101.35	-53.54			0.90	1.00	91.22	-48.18	0.00	0.00	Vehicle	Vehicle	547.00	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.64**	**7.74**	-----	-----
	L_{13} - L_{14}	405.66	150.28	-45.30			0.90	1.00	135.25	-40.77	0.00	0.00	Vehicle	Vehicle	820.39	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.00**	**6.67**	-----	-----
	L_{14} - L_{15}	502.77	164.32	-25.46			0.90	1.00	147.89	-22.91	0.00	0.00	Vehicle	Vehicle	974.03	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.35**	**7.25**	-----	-----
	L_{15} - L_{16}	469.25	136.31	-20.70			0.90	1.00	122.68	-18.63	0.00	0.00	Vehicle	Vehicle	875.82	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.41**	**9.01**	-----	-----
	L_{16} - L_{17}	365.43	80.90	-13.91			0.90	1.00	72.81	-12.52	0.00	0.00	Vehicle	Vehicle	632.81	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.01**	**11.69**	-----	-----
	L_{17} - L_{18}	248.67	53.46	-10.29			0.90	1.00	48.11	-9.26	0.00	0.00	Vehicle	Vehicle	427.52	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.91**	**13.19**	-----	-----
	L_{18} - L_{19}	112.99	32.95	-25.19			0.90	1.00	29.65	-22.67	0.00	0.00	Vehicle	Vehicle	211.12	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.88**	**13.14**	-----	-----
	L_{19} - L_{20}	-14.26	20.49	-71.00			0.90	1.00	18.44	-63.90	0.00	0.00	Vehicle	Vehicle	21.42	-156.99	1.95	19.80	17.8500	653.40	131.71	10.8073	5.6265	17.41	32.71	-550.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	**16.82**	**28.03**	**3.84**	**6.40**
	L_0 - L_1	15.26	13.26	-11.21			0.90	1.00	11.94	-10.09	0.00	0.00	Vehicle	Vehicle	45.70	-----	1.88	24.95	23.0700	823.35	131.71	10.8828	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**31.07**	**51.78**	-----	-----
	L_1 - L_2	136.12	37.45	-9.47			0.90	1.00	33.70	-8.52	0.00	0.00	Vehicle	Vehicle	249.98	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**8.85**	**14.75**	-----	-----
	L_2 - L_3	262.92	79.30	-19.34			0.90	1.00	71.37	-17.41	0.00	0.00	Vehicle	Vehicle	496.43	-----	6.20	38.45	32.2500	1268.85	131.71	10.7370	6.1675	15.67	32.77	-1070.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	**6.00**	**9.99**	-----	-----
	L_3 - L_4	373.32	130.43	-32.70			0.90	1.00	117.39	-29.43	0.00	0.00	Vehicle	Vehicle	739.66	-----	9.45	51.58	42.1250	1701.98	131.71	10.7370	5.7558	16.79	32.73	-1434.93	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	**4.78**	**7.97**	-----	-----
	L_4 - L_5	456.80	178.23	-48.82			0.90	1.00	160.41	-43.94	0.00	0.00	Vehicle	Vehicle	941.39	-----	11.08	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.91	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.46**	**7.44**	-----	-----
	L_5 - L_6	489.63	215.38	-65.09			0.90	1.00	193.84	-58.58	0.00	0.00	Vehicle	Vehicle	1056.50	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.03**	**6.72**	-----	-----
	L_6 - L_7	479.27	242.62	-82.19			0.90	1.00	218.36	-73.97	0.00	0.00	Vehicle	Vehicle	1096.16	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	**3.68**	**6.13**	-----	-----
	L_7 - L_8	330.30	219.36	-110.63			0.90	1.00	197.42	-99.57	0.00	0.00	Vehicle	Vehicle	857.14	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	**3.07**	**5.12**	-----	-----
	L_8 - L_9	189.19	168.61	-119.51			0.90	1.00	151.75	-107.56	0.00	0.00	Vehicle	Vehicle	574.74	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	**3.60**	**6.00**	-----	-----
	L_9 - L_{10}	39.95	110.70	-126.61			0.90	1.00	99.63	-113.95	0.00	0.00	Vehicle	Vehicle	267.80	-194.95	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	**4.95**	**8.25**	**4.04**	**6.74**
	L_{10} - L_{11}	-127.23	45.14	-127.65			0.90	1.00	40.63	-114.88	0.00	0.00	Vehicle	Vehicle	-----	-414.31	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.76	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.73**	**4.56**
	L_{11} - L_{12}	-282.51	27.90	-153.48			0.90	1.00	25.11	-138.14	0.00	0.00	Vehicle	Vehicle	-----	-666.56	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.82**	**4.69**
	L_{12} - L_{13}	-426.62	5.25	-211.71			0.90	1.00	4.72	-190.54	0.00	0.00	Vehicle	Vehicle	-----	-967.44	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	44.74	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.67**	**4.45**
	L_{13} - L_{14}	-536.34	0.00	-254.50			0.90	1.00	0.00	-229.05	0.00	0.00	Vehicle	Vehicle	-----	-1193.52	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.92	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.56**	**4.27**
	L_{14} - L_{15}	-537.64	0.00	-256.54			0.90	1.00	0.00	-230.88	0.00	0.00	Vehicle	Vehicle	-----	-1199.19	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.81	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.54**	**4.23**
	L_{15} - L_{16}	-475.53	0.00	-222.62			0.90	1.00	0.00	-200.36	0.00	0.00	Vehicle	Vehicle	-----	-1052.30	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	42.90	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.40**	**3.99**
	L_{16} - L_{17}	-384.21	10.60	-179.09			0.90	1.00	9.54	-161.18	0.00	0.00	Vehicle	Vehicle	-----	-848.69	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	43.29	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.47**	**4.11**
	L_{17} - L_{18}	-281.70	20.28	-120.08			0.90	1.00	18.25	-108.07	0.00	0.00	Vehicle	Vehicle	-----	-600.37	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	42.86	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.47**	**4.12**
	L_{18} - L_{19}	-174.99	33.22	-84.08			0.90	1.00	29.90	-75.68	0.00	0.00	Vehicle	Vehicle	-----	-391.45	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.16**	**5.27**
	L_{19} - L_{20}	-76.34	54.07	-86.65			0.90	1.00	48.66	-77.99	0.00	0.00	Vehicle	Vehicle	-----	-268.22	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.83**	**6.38**
	L_{20} - L_{21}	4.59	90.86	-81.88			0.90	1.00	81.77	-73.69	0.00	0.00	Vehicle	Vehicle	183.15	-153.70	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**7.04**	**11.74**	**6.67**	**11.11**
	L_{21} - L_{22}	56.15	127.71	-82.97			0.90	1.00	114.94	-74.68	0.00	0.00	Vehicle	Vehicle	322.03	-88.81	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**4.74**	**7.90**	**6.99**	**11.66**
	L_{22} - L_{23}	63.16	127.01	-73.86			0.90	1.00	114.31	-66.47	0.00	0.00	Vehicle	Vehicle	329.79	-81.92	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**4.73**	**7.89**	**7.92**	**13.20**
	L_{23} - L_{24}	15.68	97.16	-71.50			0.90	1.00	87.44	-64.35	0.00	0.00	Vehicle	Vehicle	209.84	-119.05	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.51**	**10.85**	**7.74**	**12.90**
	L_{24} - L_{25}	-55.90	54.50	-61.58			0.90	1.00	49.05	-55.42	0.00	0.00	Vehicle	Vehicle	-----	-192.74	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**5.61**	**9.34**
	L_{25} - L_{26}	-136.32	42.31	-57.87			0.90	1.00	38.08	-52.09	0.00	0.00	Vehicle	Vehicle	-----	-290.07	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**5.04**	**8.40**
	L_{26} - L_{27}	-217.71	21.37	-119.81			0.90	1.00	19.23	-107.83	0.00	0.00	Vehicle	Vehicle	-----	-516.65	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.84**	**4.73**
	L_{27} - L_{28}	-296.28	9.86	-181.13			0.90	1.00	8.87	-163.02	0.00	0.00	Vehicle	Vehicle	-----	-738.36	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.77**	**4.61**
	L_{28} - L_{29}	-364.24	0.00	-240.25			0.90	1.00	0.00	-216.22	0.00	0.00	Vehicle	Vehicle	-----	-942.00	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.53**	**4.21**
	L_{29} - L_{30}	-418.31	0.00	-279.79			0.90	1.00	0.00	-251.81	0.00	0.00	Vehicle	Vehicle	-----	-1089.39	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.61**	**4.36**
	L_{30} - L_{31}	-350.66	31.47	-238.02			0.90	1.00	28.33	-214.22	0.00	0.00	Vehicle	Vehicle	-----	-920.00	11.98	70.85	58.8700	2338.05	131.71	11.1432	5.6285	17.82	32.70	-1969.16	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.26**	**5.43**
	L_{31} - L_{32}	-275.63	44.95	-199.62			0.90	1.00	40.45	-179.66	0.00	0.00	Vehicle	Vehicle	-----	-747.58	9.73	59.60	49.8700	1966.80	131.71	11.1432	5.8413	17.17	32.72	-1657.58	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	(No Impact) Pedestrian Load$_{MAX}$	(No Impact) Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Verticals																																															
Structure 1	U_0 - L_0	-77.20	19.19	-56.87			0.90	1.00	17.27	-51.18	0.00	0.00	Vehicle	Vehicle	------	-211.26	1.63	16.85	15.2186	556.00	131.71	9.3438	1.9682	42.73	31.26	-447.73	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.13	5.22
	U_1 - L_1	-33.88	17.16	-47.99			0.90	1.00	15.45	-43.19	0.00	0.00	Vehicle	Vehicle	------	-137.62	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	4.42	7.37
	U_2 - L_2	10.41	16.07	-35.34			0.90	1.00	14.46	-31.81	0.00	0.00	Vehicle	Vehicle	44.86	-55.39	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	17.32	28.86	6.84	11.39
	U_3 - L_3	44.37	15.92	-22.47			0.90	1.00	14.33	-20.22	0.00	0.00	Vehicle	Vehicle	88.73	------	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	------	------	6.56	------	------	------	------	------	16.05	26.75	------	------
	U_4 - L_4	-16.71	1.05	-56.10			0.90	1.00	0.94	-50.49	0.00	0.00	Vehicle	Vehicle	------	-131.11	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.96	6.60
	U_5 - L_5	-109.52	0.00	-72.68			0.90	1.00	0.00	-65.41	0.00	0.00	Vehicle	Vehicle	------	-284.09	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	------	------	16.16	------	------	33.25	45.00	Pass	5.37	12.00	Pass	------	------	------	------	------	2.90	4.83
	U_6 - L_6	-143.61	0.00	-89.85			0.90	1.00	0.00	-80.87	0.00	0.00	Vehicle	Vehicle	------	-361.90	3.13	24.86	21.7294	820.36	131.71	9.9479	2.0895	42.85	31.25	-660.40	16.00	0.44	10.00	0.56	------	------	16.00	------	------	36.57	45.00	Pass	8.89	12.00	Pass	------	------	------	------	------	2.70	4.51
	U_7 - L_7	-142.76	2.01	-83.05			0.90	1.00	1.81	-74.75	0.00	0.00	Vehicle	Vehicle	------	-347.54	2.88	23.11	20.2294	762.61	131.71	11.7292	2.0414	51.71	30.46	-598.26	16.25	0.44	10.00	0.50	------	------	16.25	------	------	37.14	45.00	Pass	10.00	12.00	Pass	------	------	------	------	------	2.55	4.25
	U_8 - L_8	-391.96	0.00	-170.43			0.90	1.00	0.00	-153.39	0.00	0.00	Vehicle	Vehicle	------	-841.88	3.28	51.42	48.1423	1696.94	131.71	16.6563	4.0363	37.14	31.69	-1385.05	15.25	0.82	15.64	1.31	------	------	15.25	------	------	18.60	44.55	Pass	5.96	12.00	Pass	------	------	------	------	------	2.63	4.39
	U_9 - L_9	-223.26	7.87	-87.75			0.90	1.00	7.08	-78.97	0.00	0.00	Vehicle	Vehicle	------	-461.34	3.50	31.56	28.0625	1041.56	131.71	12.1563	2.5582	42.77	31.26	-838.65	16.25	0.50	12.00	0.63	------	------	16.25	------	------	32.50	45.00	Pass	9.60	12.00	Pass	------	------	------	------	------	3.21	5.34
	U_{10} - L_{10}	-225.85	6.10	-93.98			0.90	1.00	5.49	-84.58	0.00	0.00	Vehicle	Vehicle	------	-476.87	2.76	36.13	33.3715	1192.34	131.71	10.7083	2.3777	40.53	31.44	-965.49	16.16	0.83	11.50	0.80	------	------	16.16	------	------	19.50	45.00	Pass	7.23	12.00	Pass	------	------	------	------	------	3.67	6.11
	U_{11} - L_{11}	-198.80	4.27	-86.81			0.90	1.00	3.84	-78.13	0.00	0.00	Vehicle	Vehicle	------	-427.71	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.40	5.66
	U_{12} - L_{12}	-154.81	1.62	-77.40			0.90	1.00	1.46	-69.66	0.00	0.00	Vehicle	Vehicle	------	-352.18	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	------	------	16.25	------	------	32.50	45.00	Pass	8.89	12.00	Pass	------	------	------	------	------	3.25	5.42
	U_{13} - L_{13}	-109.06	0.28	-65.86			0.90	1.00	0.25	-59.27	0.00	0.00	Vehicle	Vehicle	------	-270.19	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	------	2.75	4.58
	U_{14} - L_{14}	-12.31	0.78	-51.88			0.90	1.00	0.70	-46.69	0.00	0.00	Vehicle	Vehicle	------	-117.16	0.00	16.85	16.8486	556.00	131.71	9.2805	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	4.27	7.12
	U_{15} - L_{15}	-5.62	11.47	-34.04			0.90	1.00	10.32	-30.64	0.00	0.00	Vehicle	Vehicle	15.07	-73.68	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	25.18	41.97	6.61	11.02
	U_{16} - L_{16}	-51.73	11.41	-54.26			0.90	1.00	10.27	-48.83	0.00	0.00	Vehicle	Vehicle	------	-173.05	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.56	5.93
	U_{17} - L_{17}	-127.32	11.84	-75.19			0.90	1.00	10.66	-67.67	0.00	0.00	Vehicle	Vehicle	------	-312.14	0.00	20.66	20.6644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	------	------	16.16	------	------	33.25	45.00	Pass	5.37	12.00	Pass	------	------	------	------	------	2.52	4.20
	U_{18} - L_{18}	-159.94	10.90	-83.75			0.90	1.00	9.81	-75.37	0.00	0.00	Vehicle	Vehicle	------	-371.23	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	------	------	16.16	------	------	32.06	45.00	Pass	7.23	12.00	Pass	------	------	------	------	------	2.91	4.85
	U_{19} - L_{19}	-191.17	9.20	-85.55			0.90	1.00	8.28	-76.99	0.00	0.00	Vehicle	Vehicle	------	-415.34	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.31	5.52
	U_{20} - L_{20}	-212.33	9.19	-98.38			0.90	1.00	8.27	-88.54	0.00	0.00	Vehicle	Vehicle	------	-467.87	0.00	30.63	30.6305	1010.81	131.71	20.3229	2.8427	64.34	29.06	-756.66	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	2.51	4.18
Structure 2	U_0 - L_0	-206.69	16.30	-88.96			0.90	1.00	14.67	-80.06	0.00	0.00	Vehicle	Vehicle	------	-442.17	0.00	33.27	33.2657	1097.77	131.71	19.1510	2.8573	60.32	29.54	-835.23	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	3.27	5.44
	U_1 - L_1	-188.76	16.71	-85.88			0.90	1.00	15.04	-77.29	0.00	0.00	Vehicle	Vehicle	------	-412.85	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	3.75	6.26
	U_2 - L_2	-155.92	17.52	-79.89			0.90	1.00	15.77	-71.90	0.00	0.00	Vehicle	Vehicle	------	-358.47	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	3.49	5.82
	U_3 - L_3	-134.58	19.75	-75.69			0.90	1.00	17.77	-68.12	0.00	0.00	Vehicle	Vehicle	------	-322.55	0.00	22.73	22.7330	750.17	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	------	------	16.32	------	------	30.85	45.00	Pass	4.91	12.00	Pass	------	------	------	------	------	2.79	4.66
	U_4 - L_4	-64.49	18.69	-57.70			0.90	1.00	16.82	-51.93	0.00	0.00	Vehicle	Vehicle	------	-196.36	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.17	5.29
	U_5 - L_5	-19.94	20.21	-49.00			0.90	1.00	18.19	-44.10	0.00	0.00	Vehicle	Vehicle	------	-121.47	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	4.36	7.27
	U_6 - L_6	40.08	16.67	-25.59			0.90	1.00	15.01	-23.03	0.00	0.00	Vehicle	Vehicle	84.62	------	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	------	------	6.56	------	------	------	------	------	15.50	25.83	------	------
	U_7 - L_7	-26.04	0.24	-52.67			0.90	1.00	0.22	-47.41	0.00	0.00	Vehicle	Vehicle	------	-136.56	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.98	6.63
	U_8 - L_8	-125.25	0.00	-55.20			0.90	1.00	0.00	-49.68	0.00	0.00	Vehicle	Vehicle	------	-270.46	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	------	------	15.75	------	------	36.00	45.00	Pass	8.89	12.00	Pass	------	------	------	------	------	4.90	8.16
	U_9 - L_9	-174.53	0.00	-85.45			0.90	1.00	0.00	-76.91	0.00	0.00	Vehicle	Vehicle	------	-393.53	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	4.03	6.72
	U_{10} - L_{10}	-202.66	0.00	-96.19			0.90	1.00	0.00	-86.57	0.00	0.00	Vehicle	Vehicle	------	-451.03	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	------	------	16.48	------	------	20.31	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.99	6.65
	U_{11} - L_{11}	-229.53	2.75	-119.10			0.90	1.00	2.47	-107.19	0.00	0.00	Vehicle	Vehicle	------	-530.63	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	------	------	16.48	------	------	20.31	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.00	4.99
	U_{12} - L_{12}	-250.85	3.84	-123.48			0.90	1.00	3.45	-111.13	0.00	0.00	Vehicle	Vehicle	------	-566.88	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	------	------	16.48	------	------	18.26	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	2.97	4.96
	U_{13} - L_{13}	-223.32	16.46	-110.08			0.90	1.00	14.82	-99.07	0.00	0.00	Vehicle	Vehicle	------	-504.97	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	------	------	16.32	------	------	20.13	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	2.83	4.71
	U_{14} - L_{14}	-343.31	0.00	-174.74			0.90	1.00	0.00	-157.26	0.00	0.00	Vehicle	Vehicle	------	-787.04	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	------	------	15.38	------	------	18.31	45.00	Pass	5.68	12.00	Pass	------	------	------	------	------	2.70	4.51
	U_{15} - L_{15}	-123.14	20.62	-82.69			0.90	1.00	18.56	-74.42	0.00	0.00	Vehicle	Vehicle	------	-321.33	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	4.57	7.62
	U_{16} - L_{16}	-156.70	18.05	-106.72			0.90	1.00	16.25	-96.05	0.00	0.00	Vehicle	Vehicle	------	-411.81	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	3.18	5.30
	U_{17} - L_{17}	-147.91	16.07	-107.26			0.90	1.00	14.46	-96.54	0.00	0.00	Vehicle	Vehicle	------	-401.45	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	2.95	4.92
	U_{18} - L_{18}	-142.22	10.85	-112.02			0.90	1.00	9.76	-100.81	0.00	0.00	Vehicle	Vehicle	------	-403.32	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	2.59	4.31
	U_{19} - L_{19}	-111.48	9.96	-72.84			0.90	1.00	8.96	-65.55	0.00	0.00	Vehicle	Vehicle	------	-286.96	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	------	------	15.75	------	------	31.50	45.00	Pass	10.00	12.00	Pass	------	------	------	------	------	3.66	6.10
	U_{20} - L_{20}	-76.55	5.69	-60.11			0.90	1.00	5.12	-54.10	0.00	0.00	Vehicle	Vehicle	------	-216.73	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	------	3.31	5.52
	U_{21} - L_{21}	-44.31	4.39	-48.15			0.90	1.00	3.95	-43.33	0.00	0.00	Vehicle	Vehicle	------	-151.49	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	4.10	6.84
	U_{22} - L_{22}	-21.25	0.55	-52.37			0.90	1.00	0.50	-47.13	0.00	0.00	Vehicle	Vehicle	------	-129.75	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	4.08	6.80
	U_{23} - L_{23}	-39.07	3.27	-38.07			0.90	1.00	2.95	-34.26	0.00	0.00	Vehicle	Vehicle	------	-125.02	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.31	5.52
	U_{24} - L_{24}	-74.84	2.40	-60.42			0.90	1.00	2.16	-54.38	0.00	0.00	Vehicle	Vehicle	------	-215.12	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	------	3.31	5.52
	U_{25} - L_{25}	-103.27	6.10	-76.63			0.90	1.00	5.49	-68.97	0.00	0.00	Vehicle	Vehicle	------	-283.68	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	------	------	15.75	------	------	31.50	45.00	Pass	10.00	12.00	Pass	------	------	------	------	------	3.55	5.92
	U_{26} - L_{26}	-120.22	6.22	-111.79			0.90	1.00	5.60	-100.61	0.00	0.00	Vehicle	Vehicle	------	-374.27	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	2.73	4.54
	U_{27} - L_{27}	-123.93	10.53	-110.81			0.90	1.00	9.48	-99.73	0.00	0.00	Vehicle	Vehicle	------	-377.19	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.00	5.01
	U_{28} - L_{28}	-135.60	11.07	-122.52			0.90	1.00	9.96	-110.26	0.00	0.00	Vehicle	Vehicle	------	-415.18	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	2.89	4.81
	U_{29} - L_{29}	-116.87	13.88	-98.98			0.90	1.00	12.49	-89.08	0.00	0.00	Vehicle	Vehicle	------	-344.95	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	3.86	6.44
	U_{30} - L_{30}	-262.02	0.00	-177.18			0.90	1.00	0.00	-159.46	0.00	0.00	Vehicle	Vehicle	------	-686.12	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	------	------	15.38	------	------	18.31	45.00	Pass	5.68	12.00	Pass	------	------	------	------	------	2.97	4.95
	U_{31} - L_{31}	-156.38	18.34	-94.14			0.90	1.00	16.50	-84.73	0.00	0.00	Vehicle	Vehicle	------	-386.86	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	------	------	16.32	------	------	20.13	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	3.78	6.30
	U_{32} - L_{32}	-185.51	11.91	-118.50			0.90	1.00	10.72	-106.65	0.00	0.00	Vehicle	Vehicle	------	-472.24	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	------	------	16.48	------	------	18.26	45.00	Pass	6.06	12.00	Pass	------	------	------

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Axial Force Rating

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	(No Impact) Pedestrian Load$_{MAX}$	(No Impact) Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Tension Member: Inventory RF	Tension Member: Operating RF	Comp. Member: Inventory RF	Comp. Member: Operating RF
North Truss - Diagonals	Structure 1																																														
	U_1 - L_1	87.33	74.40	-26.79			0.90	1.00	66.96	-24.11	0.00	0.00	Vehicle	Vehicle	258.61	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	**4.47**	**7.45**	-----	-----
	U_1 - L_2	23.35	57.71	-26.61			0.90	1.00	51.94	-23.95	0.00	0.00	Vehicle	Vehicle	142.89	-21.55	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**4.67**	**7.78**	**8.99**	**14.98**
	U_3 - L_3	-37.85	37.47	-25.67			0.90	1.00	33.72	-23.10	0.00	0.00	Vehicle	-----	-----	-99.26	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**7.70**	**12.83**
	U_3 - L_4	-92.19	11.57	-25.13			0.90	1.00	10.41	-22.62	0.00	0.00	Vehicle	Vehicle	-----	-168.85	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**6.48**	**10.80**
	U_4 - L_4	143.37	88.21	0.00			0.90	1.00	79.39	0.00	0.00	0.00	Vehicle	Vehicle	358.40	-----	0.00	20.66	20.6644	681.93	131.71	11.6953	2.0011	52.60	30.37	-533.41	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**2.88**	**4.80**	-----	-----
	U_5 - L_5	177.90	97.51	0.00			0.90	1.00	87.76	0.00	0.00	0.00	Vehicle	Vehicle	421.42	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.23**	**5.39**	-----	-----
	U_6 - L_6	184.42	100.39	-1.77			0.90	1.00	90.35	-1.59	0.00	0.00	Vehicle	Vehicle	435.51	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.10**	**5.16**	-----	-----
	U_7 - L_7	180.02	91.91	-3.41			0.90	1.00	82.72	-3.07	0.00	0.00	Vehicle	Vehicle	413.25	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.41**	**5.69**	-----	-----
	U_8 - L_8	268.98	92.37	-9.48			0.90	1.00	83.14	-8.53	0.00	0.00	Vehicle	Vehicle	529.80	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.00**	**8.34**	-----	-----
	U_9 - L_{10}	278.85	101.31	-10.29			0.90	1.00	91.17	-9.26	0.00	0.00	Vehicle	Vehicle	560.05	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**4.50**	**7.50**	-----	-----
	U_{10} - L_{11}	285.04	109.42	-5.60			0.90	1.00	98.48	-5.04	0.00	0.00	Vehicle	Vehicle	583.92	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**3.81**	**6.35**	-----	-----
	U_{11} - L_{12}	250.60	101.45	-4.70			0.90	1.00	91.31	-4.23	0.00	0.00	Vehicle	Vehicle	523.61	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.46**	**5.77**	-----	-----
	U_{12} - L_{13}	189.65	92.56	-0.33			0.90	1.00	83.30	-0.30	0.00	0.00	Vehicle	Vehicle	427.04	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**3.18**	**5.30**	-----	-----
	U_{13} - L_{14}	123.32	69.90	0.00			0.90	1.00	62.91	0.00	0.00	0.00	Vehicle	Vehicle	296.63	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**2.90**	**4.84**	-----	-----
	U_{14} - L_{14}	-24.41	24.05	-16.75			0.90	1.00	21.64	-15.07	0.00	0.00	Vehicle	-----	-----	-64.39	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**12.10**	**20.16**
	U_{15} - L_{15}	48.53	48.15	-15.57			0.90	1.00	43.33	-14.01	0.00	0.00	Vehicle	Vehicle	156.98	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.25**	**8.75**	-----	-----
	U_{16} - L_{16}	146.59	83.10	-16.25			0.90	1.00	74.79	-14.63	0.00	0.00	Vehicle	Vehicle	352.62	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**3.03**	**5.05**	-----	-----
	U_{17} - L_{17}	182.46	88.95	-13.95			0.90	1.00	80.06	-12.56	0.00	0.00	Vehicle	Vehicle	410.65	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.51**	**5.85**	-----	-----
	U_{18} - L_{18}	223.82	93.79	-11.69			0.90	1.00	84.41	-10.52	0.00	0.00	Vehicle	Vehicle	473.87	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.46**	**5.76**	-----	-----
	U_{20} - L_{19}	232.72	90.07	-9.72			0.90	1.00	81.06	-8.75	0.00	0.00	Vehicle	Vehicle	478.16	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.53**	**5.89**	-----	-----
	Structure 2																																														
	U_1 - L_1	213.54	89.02	-17.37			0.90	1.00	80.12	-15.63	0.00	0.00	Vehicle	Vehicle	451.19	-----	0.00	30.63	30.6305	1010.81	131.71	10.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.22**	**7.04**	-----	-----
	U_1 - L_2	200.48	91.14	-20.35			0.90	1.00	82.02	-18.32	0.00	0.00	Vehicle	Vehicle	438.34	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.22**	**7.04**	-----	-----
	U_3 - L_3	172.81	86.52	-22.57			0.90	1.00	77.86	-20.32	0.00	0.00	Vehicle	Vehicle	393.36	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.68**	**6.14**	-----	-----
	U_3 - L_4	147.16	83.09	-26.41			0.90	1.00	74.78	-23.77	0.00	0.00	Vehicle	Vehicle	353.34	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**3.45**	**5.75**	-----	-----
	U_5 - L_5	49.10	63.00	-25.97			0.90	1.00	56.70	-23.37	0.00	0.00	Vehicle	Vehicle	186.88	-----	0.00	16.85	16.8486	556.00	131.71	13.3992	1.9682	61.01	28.25	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.01**	**6.68**	-----	-----
	U_6 - L_6	2.96	50.86	-27.00			0.90	1.00	45.78	-24.30	0.00	0.00	Vehicle	Vehicle	103.04	-48.80	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**5.57**	**9.28**	**8.12**	**13.53**
	U_7 - L_7	-85.74	12.88	-28.28			0.90	1.00	11.59	-25.45	0.00	0.00	Vehicle	-----	-----	-166.61	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	**6.45**	**10.75**
	U_7 - L_7	140.30	51.07	0.00			0.90	1.00	45.96	0.00	0.00	0.00	Vehicle	Vehicle	281.98	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**6.04**	**10.07**	-----	-----
	U_8 - L_8	204.22	86.53	0.00			0.90	1.00	77.87	0.00	0.00	0.00	Vehicle	Vehicle	434.20	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.90**	**6.50**	-----	-----
	U_9 - L_9	234.87	103.62	0.00			0.90	1.00	93.26	0.00	0.00	0.00	Vehicle	Vehicle	507.39	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.49**	**5.82**	-----	-----
	U_{11} - L_{10}	263.10	120.14	-2.97			0.90	1.00	108.12	-2.67	0.00	0.00	Vehicle	Vehicle	576.30	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.23**	**5.38**	-----	-----
	U_{11} - L_{11}	274.02	127.46	-3.62			0.90	1.00	114.71	-3.26	0.00	0.00	Vehicle	Vehicle	604.77	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**2.98**	**4.97**	-----	-----
	U_{13} - L_{12}	254.94	117.68	-16.78			0.90	1.00	105.91	-15.10	0.00	0.00	Vehicle	Vehicle	560.90	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**2.96**	**4.93**	-----	-----
	U_{13} - L_{13}	217.71	103.48	-20.92			0.90	1.00	93.13	-18.83	0.00	0.00	Vehicle	Vehicle	484.80	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.61**	**6.01**	-----	-----
	U_{15} - L_{15}	110.05	66.41	-21.18			0.90	1.00	59.77	-19.06	0.00	0.00	Vehicle	Vehicle	272.56	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.43**	**9.05**	-----	-----
	U_{15} - L_{16}	132.30	87.25	-23.18			0.90	1.00	78.52	-20.86	0.00	0.00	Vehicle	Vehicle	342.12	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.96**	**6.60**	-----	-----
	U_{17} - L_{17}	172.89	112.70	-17.70			0.90	1.00	101.43	-15.93	0.00	0.00	Vehicle	Vehicle	444.53	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.18**	**5.30**	-----	-----
	U_{17} - L_{18}	160.19	114.66	-18.54			0.90	1.00	103.19	-16.69	0.00	0.00	Vehicle	Vehicle	431.82	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**2.85**	**4.75**	-----	-----
	U_{19} - L_{19}	152.35	85.40	-12.21			0.90	1.00	76.86	-10.99	0.00	0.00	Vehicle	Vehicle	364.57	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.89**	**6.48**	-----	-----
	U_{20} - L_{20}	120.69	78.62	-12.46			0.90	1.00	70.76	-11.21	0.00	0.00	Vehicle	Vehicle	310.21	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**4.09**	**6.82**	-----	-----
	U_{20} - L_{21}	76.08	64.53	-6.02			0.90	1.00	58.07	-5.42	0.00	0.00	Vehicle	Vehicle	224.73	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**3.63**	**6.05**	-----	-----
	U_{21} - L_{22}	31.46	42.89	-5.43			0.90	1.00	38.60	-4.89	0.00	0.00	Vehicle	Vehicle	124.53	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**6.16**	**10.27**	-----	-----
	U_{22} - L_{23}	24.30	28.63	-12.35			0.90	1.00	25.76	-11.12	0.00	0.00	Vehicle	Vehicle	87.41	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**9.39**	**15.66**	-----	-----
	U_{24} - L_{23}	72.26	53.28	-3.89			0.90	1.00	47.95	-3.50	0.00	0.00	Vehicle	Vehicle	197.84	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.35	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.45**	**7.41**	-----	-----
	U_{24} - L_{24}	112.13	82.52	-7.94			0.90	1.00	74.27	-7.15	0.00	0.00	Vehicle	Vehicle	306.68	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**3.97**	**6.61**	-----	-----
	U_{25} - L_{25}	127.84	92.97	-7.99			0.90	1.00	83.67	-7.19	0.00	0.00	Vehicle	Vehicle	347.48	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.75**	**6.25**	-----	-----
	U_{26} - L_{26}	132.67	119.95	-12.67			0.90	1.00	107.96	-11.41	0.00	0.00	Vehicle	Vehicle	406.37	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**2.88**	**4.80**	-----	-----
	U_{28} - L_{27}	137.94	120.23	-12.33			0.90	1.00	108.21	-11.10	0.00	0.00	Vehicle	Vehicle	413.78	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.17**	**5.29**	-----	-----
	U_{28} - L_{28}	122.80	107.72	-14.79			0.90	1.00	96.94	-13.31	0.00	0.00	Vehicle	Vehicle	369.68	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.27**	**5.44**	-----	-----
	U_{29} - L_{29}	102.75	84.77	-18.93			0.90	1.00	76.29	-17.03	0.00	0.00	Vehicle	Vehicle	298.87	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.31**	**7.18**	-----	-----
	U_{30} - L_{31}	140.07	77.82	-18.95			0.90	1.00	70.03	-17.05	0.00	0.00	Vehicle	Vehicle	333.83	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.46**	**9.10**	-----	-----
	U_{31} - L_{32}	167.39	101.86	-20.60			0.90	1.00	91.67	-18.54	0.00	0.00	Vehicle	Vehicle	416.23	-----	0.00	30.63	30.6305	1010.81	131.71	17.8750	2.8427	56.59	29.95	-779.87	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.99**	**6.66**	-----	-----
	U_{32} - L_{33}	202.10	124.72	-11.05			0.90	1.00	112.25	-9.94	0.00	0.00	Vehicle	Vehicle	505.94	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.43**	**5.72**	-----	-----
	U_{33} - L_{34}	201.91	102.59	-11.13			0.90	1.00	92.33	-10.02	0.00	0.00	Vehicle	Vehicle	462.54	-----	0.00	33.27	33.2657	1097.77	131.71	14.5729	2.8573	45.90	31.00	-876.43	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.18**	**6.96**	-----	-----
	U_{35} - L_{35}	180.76	98.79	-1.52			0.90	1.00	88.91	-1.37	0.00	0.00	Vehicle	Vehicle	427.53	-----	0.00	30.63	30.6305	1010.81

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location	Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	(No Impact) Pedestrian Load MAX	(No Impact) Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capacity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Upper Chord	Structure 1																																															
		U_0 - U_1	-52.64	19.44	-51.67			0.75	1.00	14.58	-38.75	0.00	0.00	Vehicle	Vehicle	-152.39	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	7.94	13.23
		U_1 - U_2	-61.57	35.41	-83.14			0.75	1.00	26.56	-62.36	0.00	0.00	Vehicle	Vehicle	-----	-215.15	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	4.85	8.08
		U_2 - U_3	-26.99	49.46	-106.69			0.75	1.00	37.10	-80.02	0.00	0.00	Vehicle	Vehicle	45.29	-208.46	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	11.29	18.82	4.04	6.73
		U_3 - U_4	32.92	62.88	-114.09			0.75	1.00	47.16	-85.57	0.00	0.00	Vehicle	Vehicle	144.98	-142.60	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	8.12	13.53	4.19	6.99
		U_4 - U_5	34.77	63.15	-113.49			0.75	1.00	47.36	-85.12	0.00	0.00	Vehicle	Vehicle	147.83	-139.22	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	8.06	13.43	4.23	7.05
		U_5 - U_6	124.13	75.21	-69.56			0.75	1.00	56.41	-52.17	0.00	0.00	Vehicle	Vehicle	283.58	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	5.82	9.70	-----	-----
		U_6 - U_7	223.19	87.79	-30.26			0.75	1.00	65.84	-22.70	0.00	0.00	Vehicle	Vehicle	432.80	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	5.30	8.83	-----	-----
		U_7 - U_8	331.76	129.94	0.00			0.75	1.00	97.45	0.00	0.00	0.00	Vehicle	Vehicle	642.44	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	4.79	7.99	-----	-----
		U_8 - U_9	267.61	121.04	0.00			0.75	1.00	90.78	0.00	0.00	0.00	Vehicle	Vehicle	544.59	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	4.44	7.39	-----	-----
		U_9 - U_{10}	89.12	63.28	-15.33			0.75	1.00	47.46	-11.50	0.00	0.00	Vehicle	Vehicle	218.68	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	-----	-----	42.67	-----	-----	10.67	-----	-----	7.84	13.07	-----	-----
		U_{10} - U_{11}	-76.81	54.79	-67.38			0.75	1.00	41.09	-50.54	0.00	0.00	Vehicle	Vehicle	-----	-209.34	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	6.18	10.30
		U_{11} - U_{12}	-230.69	46.15	-113.53			0.75	1.00	34.61	-85.15	0.00	0.00	Vehicle	Vehicle	-----	-484.38	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	4.10	6.83
		U_{12} - U_{13}	-341.88	38.43	-161.51			0.75	1.00	28.83	-121.13	0.00	0.00	Vehicle	Vehicle	-----	-706.90	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	3.94	6.57
		U_{13} - U_{14}	-421.62	31.79	-194.54			0.75	1.00	23.85	-145.90	0.00	0.00	Vehicle	Vehicle	-----	-864.23	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.73	6.21
		U_{14} - U_{15}	-422.51	31.65	-194.54			0.75	1.00	23.74	-145.90	0.00	0.00	Vehicle	Vehicle	-----	-865.38	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.72	6.20
		U_{15} - U_{16}	-439.94	24.52	-181.89			0.75	1.00	18.39	-136.41	0.00	0.00	Vehicle	Vehicle	-----	-867.49	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.90	6.51
		U_{16} - U_{17}	-422.43	18.42	-166.09			0.75	1.00	13.82	-124.57	0.00	0.00	Vehicle	Vehicle	-----	-819.05	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	4.36	7.27
		U_{17} - U_{18}	-340.94	12.25	-124.24			0.75	1.00	9.19	-93.18	0.00	0.00	Vehicle	Vehicle	-----	-645.11	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	45.00	Pass	32.00	50.00	Pass	8.00	12.00	Pass	-----	-----	4.06	6.76
		U_{18} - U_{19}	-247.15	7.37	-78.84			0.75	1.00	5.53	-59.13	0.00	0.00	Vehicle	Vehicle	-----	-449.40	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	4.37	7.28
		U_{19} - U_{20}	-131.71	3.62	-37.28			0.75	1.00	2.71	-27.96	0.00	0.00	Vehicle	Vehicle	-----	-231.80	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	11.71	19.52
	Structure 2	U_0 - U_1	-131.51	11.69	-50.72			0.75	1.00	8.77	-38.04	0.00	0.00	Vehicle	Vehicle	-----	-253.38	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	8.14	13.56
		U_1 - U_2	-247.03	25.17	-101.35			0.75	1.00	18.88	-76.01	0.00	0.00	Vehicle	Vehicle	-----	-485.63	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.30	7.16
		U_2 - U_3	-347.15	39.24	-145.22			0.75	1.00	29.43	-108.91	0.00	0.00	Vehicle	Vehicle	-----	-687.27	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.69	4.00	0.69	16.00	95.35	272.00	30.22	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	4.02	6.71
		U_3 - U_4	-437.07	55.40	-185.42			0.75	1.00	41.55	-139.07	0.00	0.00	Vehicle	Vehicle	-----	-869.49	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.90	6.50
		U_4 - U_5	-468.70	68.28	-207.63			0.75	1.00	51.21	-155.72	0.00	0.00	Vehicle	Vehicle	-----	-946.71	15.14	69.44	54.2975	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.92	6.54
		U_5 - U_6	-471.03	81.13	-217.75			0.75	1.00	60.85	-163.31	0.00	0.00	Vehicle	Vehicle	-----	-966.18	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.73	6.22
		U_6 - U_7	-414.41	90.75	-216.34			0.75	1.00	68.06	-162.26	0.00	0.00	Vehicle	Vehicle	-----	-890.28	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.43	5.71
		U_7 - U_8	-413.45	90.88	-216.10			0.75	1.00	68.16	-162.07	0.00	0.00	Vehicle	Vehicle	-----	-888.64	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.44	5.73
		U_8 - U_9	-321.98	99.60	-195.60			0.75	1.00	74.70	-146.70	0.00	0.00	Vehicle	Vehicle	-----	-736.43	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	3.29	5.48
		U_9 - U_{10}	-182.11	104.57	-164.13			0.75	1.00	78.43	-123.10	0.00	0.00	Vehicle	Vehicle	-----	-503.45	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	3.43	5.72
		U_{10} - U_{11}	-32.58	110.15	-113.10			0.75	1.00	82.62	-84.83	0.00	0.00	Vehicle	Vehicle	136.65	-226.14	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	6.85	11.42	5.21	8.69
		U_{11} - U_{12}	133.59	112.79	-61.21			0.75	1.00	84.59	-45.91	0.00	0.00	Vehicle	Vehicle	356.95	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	5.51	9.19	-----	-----
		U_{12} - U_{13}	289.99	120.63	-11.50			0.75	1.00	90.47	-8.62	0.00	0.00	Vehicle	Vehicle	573.01	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	5.63	9.39	-----	-----
		U_{13} - U_{14}	434.76	166.72	0.00			0.75	1.00	125.04	0.00	0.00	0.00	Vehicle	Vehicle	836.11	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.42	9.03	-----	-----
		U_{14} - U_{15}	474.45	170.41	0.00			0.75	1.00	127.81	0.00	0.00	0.00	Vehicle	Vehicle	893.70	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.12	8.53	-----	-----
		U_{15} - U_{16}	383.28	128.71	0.00			0.75	1.00	96.53	0.00	0.00	0.00	Vehicle	Vehicle	707.42	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	5.53	9.21	-----	-----
		U_{16} - U_{17}	279.57	78.10	-13.95			0.75	1.00	58.58	-10.46	0.00	0.00	Vehicle	Vehicle	490.36	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	7.83	13.05	-----	-----
		U_{17} - U_{18}	172.63	81.14	-43.35			0.75	1.00	60.86	-32.51	0.00	0.00	Vehicle	Vehicle	356.27	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	5.85	9.76	-----	-----
		U_{18} - U_{19}	74.36	82.58	-80.31			0.75	1.00	61.93	-60.23	0.00	0.00	Vehicle	Vehicle	230.86	-----	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	6.70	11.17	-----	-----
		U_{19} - U_{20}	-10.01	84.51	-111.09			0.75	1.00	63.38	-83.32	0.00	0.00	Vehicle	Vehicle	124.31	-193.54	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	7.86	13.10	4.92	8.20
	Structure 3	U_0 - U_{21}	-62.06	85.18	-139.37			0.75	1.00	63.88	-104.52	0.00	0.00	Vehicle	Vehicle	57.74	-307.14	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	9.90	16.49	4.45	7.41
		U_{21} - U_{22}	-88.74	86.25	-159.69			0.75	1.00	64.69	-119.77	0.00	0.00	Vehicle	Vehicle	-----	-374.86	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.75	6.25
		U_{22} - U_{23}	-88.92	86.25	-159.53			0.75	1.00	64.69	-119.65	0.00	0.00	Vehicle	Vehicle	-----	-374.83	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.75	6.25
		U_{23} - U_{24}	-76.67	85.00	-142.74			0.75	1.00	63.75	-107.06	0.00	0.00	Vehicle	Vehicle	-----	-331.62	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.26	7.10
		U_{24} - U_{25}	-37.64	83.82	-123.90			0.75	1.00	62.87	-92.92	0.00	0.00	Vehicle	Vehicle	87.27	-250.27	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.19	13.65	4.23	7.05
		U_{25} - U_{26}	37.23	80.85	-85.01			0.75	1.00	60.63	-63.76	0.00	0.00	Vehicle	Vehicle	179.77	-89.75	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	7.21	12.02	6.44	10.74
		U_{26} - U_{27}	128.02	78.33	-39.66			0.75	1.00	58.74	-29.74	0.00	0.00	Vehicle	Vehicle	293.70	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	6.52	10.87	-----	-----
		U_{27} - U_{28}	233.68	80.04	-7.74			0.75	1.00	60.03	-5.81	0.00	0.00	Vehicle	Vehicle	433.86	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	8.10	13.50	-----	-----
		U_{28} - U_{29}	337.65	127.46	0.00			0.75	1.00	95.59	0.00	0.00	0.00	Vehicle	Vehicle	646.06	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	5.87	9.78	-----	-----
		U_{29} - U_{30}	437.10	171.32	0.00			0.75	1.00	128.49	0.00	0.00	0.00	Vehicle	Vehicle	846.62	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.26	8.77	-----	-----
		U_{30} - U_{31}	420.53	166.52	0.00			0.75	1.00	124.89	0.00	0.00	0.00	Vehicle	Vehicle	817.28	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.50	9.16	-----	-----
		U_{31} - U_{32}	300.69	121.69	-14.89			0.75	1.00	91.26	-11.17	0.00	0.00	Vehicle	Vehicle	588.64	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	(No Impact) Pedestrian Load MAX	(No Impact) Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capicity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Lower Chord	Structure 1	L_0- L_1	8.49	3.54	-7.41			0.75	1.00	2.66	-5.56	0.00	0.00	Vehicle	Vehicle	16.79	-----	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**111.60**	**186.01**	-----	-----
		L_1 - L_2	50.81	50.25	-21.04			0.75	1.00	37.69	-15.78	0.00	0.00	Vehicle	Vehicle	147.71	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.19**	**11.99**	-----	-----
		L_2 - L_3	61.22	79.37	-36.20			0.75	1.00	59.53	-27.15	0.00	0.00	Vehicle	Vehicle	208.56	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**6.12**	**10.20**	-----	-----
		L_3 - L_4	25.70	95.35	-50.17			0.75	1.00	71.51	-37.63	0.00	0.00	Vehicle	Vehicle	188.36	-48.12	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	**5.39**	**8.99**	**9.39**	**15.64**
		L_4 - L_5	-118.45	60.39	-73.91			0.75	1.00	45.29	-55.43	0.00	0.00	Vehicle	Vehicle	-----	-274.08	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**4.13**	**6.89**
		L_5 - L_6	-217.80	21.18	-86.70			0.75	1.00	15.89	-65.03	0.00	0.00	Vehicle	Vehicle	-----	-424.03	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**4.08**	**6.79**
		L_6 - L_7	-320.36	0.00	-131.52			0.75	1.00	0.00	-98.64	0.00	0.00	Vehicle	Vehicle	-----	-630.18	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.80**	**6.33**
		L_7 - L_8	-417.18	0.00	-180.96			0.75	1.00	0.00	-135.72	0.00	0.00	Vehicle	Vehicle	-----	-836.41	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.46**	**5.76**
		L_8 - L_9	-410.79	0.00	-181.13			0.75	1.00	0.00	-135.84	0.00	0.00	Vehicle	Vehicle	-----	-828.36	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.48**	**5.81**
		L_9 - L_{10}	-247.75	0.00	-121.96			0.75	1.00	0.00	-91.47	0.00	0.00	Vehicle	Vehicle	-----	-520.27	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**4.58**	**7.63**
		L_{10} - L_{11}	-65.21	14.50	-67.63			0.75	1.00	10.88	-50.72	0.00	0.00	Vehicle	Vehicle	-----	-194.67	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**5.15**	**8.58**
		L_{11} - L_{12}	101.88	66.83	-50.20			0.75	1.00	50.12	-37.65	0.00	0.00	Vehicle	Vehicle	241.03	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.89**	**9.82**	-----	-----
		L_{12} - L_{13}	264.09	110.13	-43.01			0.75	1.00	82.60	-32.26	0.00	0.00	Vehicle	Vehicle	522.28	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.16**	**8.60**	-----	-----
		L_{13} - L_{14}	373.73	143.01	-35.97			0.75	1.00	107.26	-26.97	0.00	0.00	Vehicle	Vehicle	718.24	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.23**	**8.71**	-----	-----
		L_{14} - L_{15}	476.34	160.49	-22.93			0.75	1.00	120.37	-17.20	0.00	0.00	Vehicle	Vehicle	880.04	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.47**	**9.12**	-----	-----
		L_{15} - L_{16}	459.97	144.97	-16.82			0.75	1.00	108.73	-12.62	0.00	0.00	Vehicle	Vehicle	833.54	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**6.15**	**10.25**	-----	-----
		L_{16} - L_{17}	381.37	104.34	-11.01			0.75	1.00	78.26	-8.26	0.00	0.00	Vehicle	Vehicle	665.34	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	**6.40**	**10.67**	-----	-----
		L_{17} - L_{18}	288.98	58.97	-6.50			0.75	1.00	44.22	-4.87	0.00	0.00	Vehicle	Vehicle	471.49	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	**8.06**	**13.44**	-----	-----
		L_{18} - L_{19}	176.20	31.32	-5.28			0.75	1.00	23.49	-3.96	0.00	0.00	Vehicle	Vehicle	279.95	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**8.34**	**13.90**	-----	-----
		L_{19} - L_{20}	69.74	7.74	-18.24			0.75	1.00	5.80	-13.68	0.00	0.00	Vehicle	Vehicle	103.24	-----	1.95	19.80	17.8500	653.40	131.71	10.8073	5.6265	17.41	32.71	-550.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**44.77**	**74.62**	-----	-----
		L_0- L_1	24.59	1.46	-7.52			0.75	1.00	1.10	-5.64	0.00	0.00	Vehicle	Vehicle	34.34	-----	1.88	24.95	23.0700	823.35	131.71	10.8828	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**333.11**	**555.18**	-----	-----
		L_1 - L_2	138.59	50.22	-13.38			0.75	1.00	37.67	-10.04	0.00	0.00	Vehicle	Vehicle	261.78	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**7.88**	**13.14**	-----	-----
		L_2 - L_3	252.83	103.19	-27.55			0.75	1.00	77.39	-20.66	0.00	0.00	Vehicle	Vehicle	496.37	-----	6.20	38.45	32.2500	1268.85	131.71	10.7370	6.1675	15.67	32.77	-1070.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	**5.61**	**9.34**	-----	-----
		L_3 - L_4	352.30	147.03	-41.66			0.75	1.00	110.27	-31.24	0.00	0.00	Vehicle	Vehicle	696.92	-----	9.45	51.58	42.1250	1701.98	131.71	10.7370	5.7558	16.79	32.73	-1434.93	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	**5.21**	**8.68**	-----	-----
		L_4 - L_5	447.17	184.93	-57.91			0.75	1.00	138.70	-43.43	0.00	0.00	Vehicle	Vehicle	881.83	-----	11.00	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.90	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.20**	**8.67**	-----	-----
		L_5 - L_6	477.93	206.87	-70.77			0.75	1.00	155.15	-53.08	0.00	0.00	Vehicle	Vehicle	957.47	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.08**	**8.47**	-----	-----
		L_6 - L_7	482.68	216.57	-83.60			0.75	1.00	162.43	-62.70	0.00	0.00	Vehicle	Vehicle	979.41	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	**4.93**	**8.22**	-----	-----
		L_7 - L_8	336.61	180.70	-101.73			0.75	1.00	135.53	-76.29	0.00	0.00	Vehicle	Vehicle	731.24	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	**4.45**	**7.42**	-----	-----
		L_8 - L_9	196.05	151.50	-106.13			0.75	1.00	113.62	-79.60	0.00	0.00	Vehicle	Vehicle	501.05	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	**4.77**	**7.95**	-----	-----
		L_9 - L_{10}	45.60	100.14	-110.80			0.75	1.00	75.10	-83.10	0.00	0.00	Vehicle	Vehicle	222.00	-120.78	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	**6.52**	**10.87**	**5.58**	**9.30**
		L_{10} - L_{11}	-126.26	51.30	-113.66			0.75	1.00	38.47	-85.25	0.00	0.00	Vehicle	Vehicle	-----	-348.83	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.78	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.69**	**6.15**
		L_{11} - L_{12}	-284.87	6.41	-133.00			0.75	1.00	4.81	-99.75	0.00	0.00	Vehicle	Vehicle	-----	-586.45	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.88**	**6.47**
		L_{12} - L_{13}	-433.79	0.00	-178.67			0.75	1.00	0.00	-134.00	0.00	0.00	Vehicle	Vehicle	-----	-854.27	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.77**	**6.28**
		L_{13} - L_{14}	-552.65	0.00	-218.36			0.75	1.00	0.00	-163.77	0.00	0.00	Vehicle	Vehicle	-----	-1073.28	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.53**	**5.88**
		L_{14} - L_{15}	-573.48	0.00	-221.32			0.75	1.00	0.00	-165.99	0.00	0.00	Vehicle	Vehicle	-----	-1105.16	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.40**	**5.67**
		L_{15} - L_{16}	-492.94	0.00	-184.62			0.75	1.00	0.00	-138.46	0.00	0.00	Vehicle	Vehicle	-----	-940.83	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.39**	**5.65**
		L_{16} - L_{17}	-395.30	0.00	-144.23			0.75	1.00	0.00	-108.17	0.00	0.00	Vehicle	Vehicle	-----	-748.27	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.62**	**6.03**
		L_{17} - L_{18}	-288.04	12.08	-89.59			0.75	1.00	9.06	-67.19	0.00	0.00	Vehicle	Vehicle	-----	-520.04	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.92**	**6.54**
		L_{18} - L_{19}	-175.85	43.82	-82.87			0.75	1.00	32.86	-62.15	0.00	0.00	Vehicle	Vehicle	-----	-363.26	1.25	26.75	25.5000	882.75	131.71	10.6406	5.6472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.84**	**6.40**
		L_{19} - L_{20}	-78.08	80.60	-84.94			0.75	1.00	60.45	-63.71	0.00	0.00	Vehicle	Vehicle	-----	-239.53	1.88	26.75	24.8700	882.75	131.71	10.6380	5.6472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.67**	**7.78**
	Structure 2	L_{20} - L_{21}	7.55	113.19	-88.77			0.75	1.00	84.89	-66.58	0.00	0.00	Vehicle	Vehicle	193.76	-134.43	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.76**	**11.27**	**7.41**	**12.34**
		L_{21} - L_{22}	59.07	131.23	-89.03			0.75	1.00	98.42	-66.77	0.00	0.00	Vehicle	Vehicle	290.03	-67.89	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**5.52**	**9.20**	**7.85**	**13.08**
		L_{22} - L_{23}	71.98	128.40	-87.99			0.75	1.00	96.30	-65.99	0.00	0.00	Vehicle	Vehicle	302.22	-----	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.56**	**9.27**	-----	-----
		L_{23} - L_{24}	33.55	109.80	-86.23			0.75	1.00	82.35	-64.67	0.00	0.00	Vehicle	Vehicle	222.03	-96.52	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.78**	**11.31**	**7.87**	**13.11**
		L_{24} - L_{25}	-45.09	71.47	-83.96			0.75	1.00	53.60	-62.97	0.00	0.00	Vehicle	Vehicle	57.53	-195.04	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**8.11**	**13.51**	**5.04**	**8.39**
		L_{25} - L_{26}	-134.94	26.44	-82.51			0.75	1.00	19.83	-61.88	0.00	0.00	Vehicle	Vehicle	-----	-309.49	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.25**	**7.09**
		L_{26} - L_{27}	-245.90	6.64	-82.05			0.75	1.00	4.98	-61.54	0.00	0.00	Vehicle	Vehicle	-----	-453.00	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**4.70**	**7.83**
		L_{27} - L_{28}	-351.78	0.00	-139.85			0.75	1.00	0.00	-104.89	0.00	0.00	Vehicle	Vehicle	-----	-684.57	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.98**	**6.63**
		L_{28} - L_{29}	-458.29	0.00	-180.80			0.75	1.00	0.00	-135.60	0.00	0.00	Vehicle	Vehicle	-----	-889.58	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.62**	**6.03**
		L_{29} - L_{30}	-542.18	0.00	-216.94			0.75	1.00	0.00	-162.71	0.00	0.00	Vehicle	Vehicle	-----	-1057.36	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.59**	**5.98**
		L_{30} - L_{31}	-514.03	0.00	-224.20			0.75	1.00	0.00	-168.15	0.00	0.00	Vehicle	Vehicle	-----	-1032.56	11.98	70.85	58.8700	2338.05	131.71	11.1432	5.6285	17.82	32.70	-1969.16	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.57**	**5.95**
		L_{31} - L_{32}	-411.21	0.00	-182.37			0.75	1.00	0.00	-136.78	0.00	0.00	Vehicle	Vehicle	-----	-830.93	9.73	59.60	49.8700	1966.80	131.71	11.1432	5.8413	17.17	32.72	-1657.58	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.79**	**6.32**
		L_{32} - L_{33}	-287.47	10.73	-134.12			0.75	1.00

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30, LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30, LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Artic
(Case I considered in Max. Tension/Compression Load)

Member Forces from STAAD | Member Capacity in Tension | Member Capacity in Compression | Plate Thickness/Ratios | Axial Force Rating

Location	Member	D (kips)	LL_{max} (kips)	LL_{min} (kips)	Pedestrian $Load_{MAX}$	Pedestrian $Load_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL_{MAX}	Lane Reduction and Impact LL_{MIN}	(No Impact) Pedestrian $Load_{MAX}$	(No Impact) Pedestrian $Load_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	A_{deduct} (in^2) **	A_{gross} (in^2)	A_{net} (in^2)	$C_{Nominal}$ (kips)	C_c	L (feet)	r_{min} (in)	KL/r_{min} ***	F_{crit} **** (ksi)	$C_{nominal}$ (kips)	Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Axial Force Rating: Tension Member Operating RF	Axial Force Rating: Comp. Member Inventory RF	Axial Force Rating: Comp. Member Operating RF
Structure 1	U_0 - L_0	-67.60	15.33	-60.17			0.75	1.00	11.50	-45.13	0.00	0.00	Vehicle	Vehicle	-----	-185.65	1.63	16.85	15.2186	556.00	131.71	9.3438	1.9682	42.73	31.26	-447.73	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	3.68	6.13
	U_1 - L_1	-24.06	14.90	-42.81			0.75	1.00	11.18	-32.11	0.00	0.00	Vehicle	Vehicle	-----	-100.85	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.13	10.21
	U_2 - L_2	12.88	12.75	-34.53			0.75	1.00	9.56	-25.90	0.00	0.00	Vehicle	Vehicle	37.45	-39.38	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	26.03	43.39	8.45	14.09
	U_3 - L_3	37.35	13.22	-24.59			0.75	1.00	9.91	-18.44	0.00	0.00	Vehicle	Vehicle	70.03	-----	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	23.63	39.38	-----	-----
	U_4 - L_4	-15.53	0.00	-74.59			0.75	1.00	0.00	-55.94	0.00	0.00	Vehicle	Vehicle	-----	-141.41	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	3.59	5.98
	U_5 - L_5	-92.52	0.00	-80.09			0.75	1.00	0.00	-60.07	0.00	0.00	Vehicle	Vehicle	-----	-250.42	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	3.32	5.54
	U_6 - L_6	-117.01	0.00	-97.13			0.75	1.00	0.00	-72.84	0.00	0.00	Vehicle	Vehicle	-----	-309.94	3.13	24.86	21.7294	820.36	131.71	9.9479	2.0895	42.85	31.25	-660.40	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	3.22	5.37
	U_7 - L_7	-127.49	0.00	-90.32			0.75	1.00	0.00	-67.74	0.00	0.00	Vehicle	Vehicle	-----	-312.50	2.88	23.11	20.2294	762.61	131.71	11.7292	2.0414	51.71	30.46	-598.26	16.25	0.44	10.00	0.50	-----	-----	16.25	-----	-----	37.14	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	2.95	4.91
	U_8 - L_8	-368.60	0.00	-203.40			0.75	1.00	0.00	-152.55	0.00	0.00	Vehicle	Vehicle	-----	-809.70	3.28	51.42	48.1423	1696.94	131.71	16.6563	4.0363	37.14	31.69	-1385.05	15.25	0.82	15.64	1.31	-----	-----	15.25	-----	-----	18.60	45.00	Pass	5.96	12.00	Pass	-----	-----	-----	-----	2.74	4.57
	U_9 - L_9	-214.45	0.00	-91.03			0.75	1.00	0.00	-68.27	0.00	0.00	Vehicle	Vehicle	-----	-426.70	3.50	31.56	28.0625	1041.56	131.71	12.1563	2.5582	42.77	31.26	-838.65	16.25	0.50	12.00	0.63	-----	-----	16.25	-----	-----	32.50	45.00	Pass	9.60	12.00	Pass	-----	-----	-----	-----	3.79	6.31
	U_{10} - L_{10}	-198.57	0.00	-92.68			0.75	1.00	0.00	-69.51	0.00	0.00	Vehicle	Vehicle	-----	-408.73	2.76	36.13	33.3715	1192.34	131.71	10.7083	2.3777	40.53	31.44	-965.49	16.16	0.83	11.50	0.80	-----	-----	16.16	-----	-----	19.50	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	4.70	7.83
	U_{11} - L_{11}	-171.30	0.00	-83.58			0.75	1.00	0.00	-62.69	0.00	0.00	Vehicle	Vehicle	-----	-358.51	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	4.50	7.50
	U_{12} - L_{12}	-128.27	0.00	-75.59			0.75	1.00	0.00	-56.69	0.00	0.00	Vehicle	Vehicle	-----	-289.58	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	-----	-----	16.25	-----	-----	32.50	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	4.28	7.13
	U_{13} - L_{13}	-96.55	0.00	-65.20			0.75	1.00	0.00	-48.90	0.00	0.00	Vehicle	Vehicle	-----	-231.46	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	3.48	5.81
	U_{14} - L_{14}	-11.04	0.00	-68.16			0.75	1.00	0.00	-51.12	0.00	0.00	Vehicle	Vehicle	-----	-125.12	0.00	16.85	16.8486	556.00	131.71	9.2605	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	3.92	6.53
	U_{15} - L_{15}	-2.54	7.61	-38.74			0.75	1.00	5.71	-29.06	0.00	0.00	Vehicle	Vehicle	9.07	-66.25	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	45.20	75.34	7.03	11.72
	U_{16} - L_{16}	-31.31	6.69	-52.10			0.75	1.00	5.02	-39.08	0.00	0.00	Vehicle	Vehicle	-----	-125.37	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	4.76	7.93
	U_{17} - L_{17}	-105.02	7.36	-68.19			0.75	1.00	5.52	-51.14	0.00	0.00	Vehicle	Vehicle	-----	-247.32	0.00	20.66	20.6644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	3.59	5.99
	U_{18} - L_{18}	-126.66	6.02	-71.27			0.75	1.00	4.51	-53.45	0.00	0.00	Vehicle	Vehicle	-----	-280.46	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	4.48	7.46
	U_{19} - L_{19}	-166.54	5.53	-73.67			0.75	1.00	4.15	-55.25	0.00	0.00	Vehicle	Vehicle	-----	-336.21	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	4.88	8.14
	U_{20} - L_{20}	-184.30	5.12	-81.77			0.75	1.00	3.84	-61.33	0.00	0.00	Vehicle	Vehicle	-----	-372.46	0.00	30.63	30.6305	1010.81	131.71	20.3229	2.8427	64.34	29.06	-756.66	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	3.89	6.49
	U_0 - L_0	-203.39	18.80	-96.91			0.75	1.00	14.10	-72.68	0.00	0.00	Vehicle	Vehicle	-----	-421.88	0.00	33.27	33.2657	1097.77	131.71	19.1510	2.8573	60.32	29.54	-835.23	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	3.62	6.04
	U_1 - L_1	-176.11	20.53	-88.28			0.75	1.00	15.40	-66.21	0.00	0.00	Vehicle	Vehicle	-----	-372.40	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	4.50	7.50
	U_2 - L_2	-137.45	19.65	-74.52			0.75	1.00	14.73	-55.89	0.00	0.00	Vehicle	Vehicle	-----	-299.78	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	4.69	7.82
	U_3 - L_3	-117.61	20.68	-65.22			0.75	1.00	15.51	-48.92	0.00	0.00	Vehicle	Vehicle	-----	-258.88	0.00	22.73	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	45.00	Pass	4.91	12.00	Pass	-----	-----	-----	-----	4.10	6.83
	U_4 - L_4	-50.97	16.35	-46.87			0.75	1.00	12.26	-35.15	0.00	0.00	Vehicle	Vehicle	-----	-142.42	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	4.92	8.20
	U_5 - L_5	-13.79	16.11	-39.71			0.75	1.00	12.08	-29.78	0.00	0.00	Vehicle	Vehicle	-----	-82.46	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	6.58	10.97
	U_6 - L_6	45.46	13.49	-24.02			0.75	1.00	10.12	-18.01	0.00	0.00	Vehicle	Vehicle	81.01	-----	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	22.67	37.79	-----	-----
	U_7 - L_7	-22.33	0.12	-46.37			0.75	1.00	0.09	-34.78	0.00	0.00	Vehicle	Vehicle	-----	-104.39	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	5.49	9.15
	U_8 - L_8	-120.06	0.00	-55.16			0.75	1.00	0.00	-41.37	0.00	0.00	Vehicle	Vehicle	-----	-245.71	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	-----	-----	15.75	-----	-----	36.00	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	5.95	9.92
	U_9 - L_9	-177.00	0.00	-82.07			0.75	1.00	0.00	-61.55	0.00	0.00	Vehicle	Vehicle	-----	-363.46	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	5.01	8.35
	U_{10} - L_{10}	-205.85	0.00	-84.28			0.75	1.00	0.00	-63.21	0.00	0.00	Vehicle	Vehicle	-----	-404.57	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	5.44	9.06
	U_{11} - L_{11}	-239.21	0.00	-123.00			0.75	1.00	0.00	-92.25	0.00	0.00	Vehicle	Vehicle	-----	-510.85	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	3.42	5.70
	U_{12} - L_{12}	-257.92	0.00	-122.38			0.75	1.00	0.00	-91.78	0.00	0.00	Vehicle	Vehicle	-----	-534.16	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	3.56	5.93
	U_{13} - L_{13}	-243.80	6.38	-110.01			0.75	1.00	4.78	-82.51	0.00	0.00	Vehicle	Vehicle	-----	-495.70	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	3.25	5.41
	U_{14} - L_{14}	-420.84	0.00	-190.75			0.75	1.00	0.00	-143.06	0.00	0.00	Vehicle	Vehicle	-----	-857.07	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	-----	-----	2.65	4.41
	U_{15} - L_{15}	-158.85	21.70	-89.92			0.75	1.00	16.28	-67.44	0.00	0.00	Vehicle	Vehicle	-----	-352.62	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	4.73	7.88
	U_{16} - L_{16}	-174.03	13.00	-108.28			0.75	1.00	9.75	-81.21	0.00	0.00	Vehicle	Vehicle	-----	-402.19	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	3.64	6.06
	U_{17} - L_{17}	-156.46	10.81	-108.05			0.75	1.00	8.11	-81.04	0.00	0.00	Vehicle	Vehicle	-----	-378.98	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	3.46	5.76
	U_{18} - L_{18}	-142.20	2.92	-111.98			0.75	1.00	2.19	-83.98	0.00	0.00	Vehicle	Vehicle	-----	-366.83	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	3.11	5.18
	U_{19} - L_{19}	-113.66	3.67	-61.11			0.75	1.00	2.75	-45.83	0.00	0.00	Vehicle	Vehicle	-----	-247.07	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	5.21	8.68
Structure 2	U_{20} - L_{20}	-76.52	0.00	-52.46			0.75	1.00	0.00	-39.34	0.00	0.00	Vehicle	Vehicle	-----	-184.72	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	4.55	7.59
	U_{21} - L_{21}	-45.78	0.53	-44.93			0.75	1.00	0.40	-33.70	0.00	0.00	Vehicle	Vehicle	-----	-132.52	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	5.25	8.75
	U_{22} - L_{22}	-17.71	0.00	-66.73			0.75	1.00	0.00	-50.05	0.00	0.00	Vehicle	Vehicle	-----	-131.46	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	3.89	6.48
	U_{23} - L_{23}	-30.66	1.74	-43.91			0.75	1.00	1.31	-32.93	0.00	0.00	Vehicle	Vehicle	-----	-111.21	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	5.65	9.41
	U_{24} - L_{24}	-62.03	0.00	-57.98			0.75	1.00	0.00	-43.49	0.00	0.00	Vehicle	Vehicle	-----	-174.86	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	4.32	7.20
	U_{25} - L_{25}	-103.10	3.10	-67.56			0.75	1.00	2.33	-50.67	0.00	0.00	Vehicle	Vehicle	-----	-243.81	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	4.83	8.06
	U_{26} - L_{26}	-134.31	0.93	-111.37			0.75	1.00	0.70	-83.53	0.00	0.00	Vehicle	Vehicle	-----	-355.58	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	3.18	5.30
	U_{27} - L_{27}	-155.93	5.70	-107.73			0.75	1.00	4.27	-80.80	0.00	0.00	Vehicle	Vehicle	-----	-377.77	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	3.47	5.78
	U_{28} - L_{28}	-179.28	4.02	-118.30			0.75	1.00	3.01	-88.73	0.00	0.00	Vehicle	Vehicle	-----	-425.31	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	3.29	5.49
	U_{29} - L_{29}	-171.45	8.28	-100.31			0.75	1.00	6.21	-75.23	0.00	0.00	Vehicle	Vehicle	-----	-385.88	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	4.14	6.89
	U_{30} - L_{30}	-392.76	0.00	-193.72			0.75	1.00	0.00	-145.29	0.00	0.00	Vehicle	Vehicle	-----	-825.38	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	-----	-----	2.72	4.54
	U_{31} - L_{31}	-203.21	14.71	-103.57			0.75	1.00	11.03	-77.68	0.00	0.00	Vehicle	Vehicle	-----	-432.48	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	3.76	6.27
	U_{32} - L_{32}	-222.46	3.48	-123.77			0.75	1.00	2.61	-92.83	0.00	0.00	Vehicle	Vehicle	-----	-490.32	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	3.74	6.24
	U_{33} - L_{33}	-211.56	1.61	-123.50			0.75	1.00	1.20	-92.62	0.00	0.00	Vehicle	Vehicle	-----	-475.71	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	----

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Center Truss - Diagonals

Location		Member	Member Forces from STAAD: D (kips)	LL_{max} (kips)	LL_{min} (kips)	Pedestrian $Load_{MAX}$	Pedestrian $Load_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL_{MAX}	Lane Reduction and Impact LL_{MIN}	(No Impact) Pedestrian $Load_{MAX}$	(No Impact) Pedestrian $Load_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A_{deduct} (in²) **	A_{gross} (in²)	A_{net} (in²)	$C_{Nominal}$ (kips)	Member Capacity in Compression: C_c	L (feet)	r_{min} (in)	KL/r_{min} ***	F_{crit} **** (ksi)	$C_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Structure 1		U_0 - L_1	53.25	66.02	-23.23			0.75	1.00	49.51	-17.42	0.00	0.00	Vehicle	Vehicle	176.50	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	**6.46**	**10.77**	-----	-----
		U_1 - L_2	10.78	50.15	-21.92			0.75	1.00	37.61	-16.44	0.00	0.00	Vehicle	Vehicle	95.50	-21.61	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**6.65**	**11.08**	**12.63**	**21.06**
		U_2 - L_3	-44.02	40.99	-21.24			0.75	1.00	30.74	-15.93	0.00	0.00	Vehicle	Vehicle	-----	-91.74	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**10.93**	**18.21**
		U_3 - L_4	-76.72	16.91	-26.45			0.75	1.00	12.68	-19.84	0.00	0.00	Vehicle	Vehicle	-----	-142.71	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**7.85**	**13.09**
		U_4 - L_4	118.39	98.90	0.00			0.75	1.00	74.18	0.00	0.00	0.00	Vehicle	Vehicle	314.63	-----	0.00	20.66	20.6644	681.93	131.71	11.6953	2.0011	52.60	30.37	-533.41	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**3.29**	**5.48**	-----	-----
		U_5 - L_5	137.53	107.65	0.00			0.75	1.00	80.74	0.00	0.00	0.00	Vehicle	Vehicle	353.71	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.81**	**6.36**	-----	-----
		U_6 - L_6	157.34	106.26	0.00			0.75	1.00	79.69	0.00	0.00	0.00	Vehicle	Vehicle	377.20	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.71**	**6.19**	-----	-----
		U_7 - L_7	149.30	96.92	0.00			0.75	1.00	72.69	0.00	0.00	0.00	Vehicle	Vehicle	351.58	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.14**	**6.90**	-----	-----
		U_8 - L_8	249.09	95.94	-1.86			0.75	1.00	71.95	-1.40	0.00	0.00	Vehicle	Vehicle	479.72	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.95**	**9.91**	-----	-----
		U_9 - L_{10}	260.26	100.14	0.00			0.75	1.00	75.11	0.00	0.00	0.00	Vehicle	Vehicle	501.06	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.61**	**9.35**	-----	-----
		U_{10} - L_{11}	236.30	105.21	0.00			0.75	1.00	78.91	0.00	0.00	0.00	Vehicle	Vehicle	478.16	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**5.13**	**8.55**	-----	-----
		U_{11} - L_{12}	211.92	94.19	0.00			0.75	1.00	70.65	0.00	0.00	0.00	Vehicle	Vehicle	428.57	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.80**	**8.01**	-----	-----
		U_{12} - L_{13}	151.66	91.95	0.00			0.75	1.00	68.96	0.00	0.00	0.00	Vehicle	Vehicle	346.57	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**4.17**	**6.95**	-----	-----
		U_{13} - L_{14}	108.60	68.28	0.00			0.75	1.00	51.21	0.00	0.00	0.00	Vehicle	Vehicle	252.14	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**3.74**	**6.23**	-----	-----
		U_{14} - L_{14}	-24.45	33.39	-11.96			0.75	1.00	25.04	-8.97	0.00	0.00	Vehicle	Vehicle	22.47	-51.21	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**10.83**	**18.06**	**20.33**	**33.89**
		U_{15} - L_{15}	23.99	54.56	-10.25			0.75	1.00	40.92	-7.69	0.00	0.00	Vehicle	Vehicle	119.85	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.92**	**9.87**	-----	-----
		U_{17} - L_{16}	120.03	73.33	-10.41			0.75	1.00	55.00	-7.81	0.00	0.00	Vehicle	Vehicle	275.20	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**4.41**	**7.36**	-----	-----
		U_{18} - L_{17}	144.79	81.04	-8.72			0.75	1.00	60.78	-6.54	0.00	0.00	Vehicle	Vehicle	319.92	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.99**	**8.32**	-----	-----
		U_{19} - L_{18}	193.05	77.00	-7.19			0.75	1.00	57.75	-5.39	0.00	0.00	Vehicle	Vehicle	376.08	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.37**	**8.96**	-----	-----
		U_{20} - L_{19}	193.51	77.26	-5.84			0.75	1.00	57.94	-4.38	0.00	0.00	Vehicle	Vehicle	377.11	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.35**	**8.92**	-----	-----
Structure 2		U_0 - L_1	202.41	91.55	-21.40			0.75	1.00	68.66	-16.05	0.00	0.00	Vehicle	Vehicle	411.90	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.03**	**8.38**	-----	-----
		U_1 - L_2	190.86	90.56	-24.27			0.75	1.00	67.92	-18.20	0.00	0.00	Vehicle	Vehicle	395.28	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.18**	**8.64**	-----	-----
		U_2 - L_3	155.85	75.09	-23.88			0.75	1.00	56.32	-17.91	0.00	0.00	Vehicle	Vehicle	324.62	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.27**	**8.79**	-----	-----
		U_3 - L_4	134.05	67.84	-26.33			0.75	1.00	50.88	-19.75	0.00	0.00	Vehicle	Vehicle	284.51	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**5.22**	**8.71**	-----	-----
		U_4 - L_5	46.02	50.07	-20.78			0.75	1.00	37.55	-15.59	0.00	0.00	Vehicle	Vehicle	141.19	-----	0.00	16.85	16.8486	556.00	131.71	15.3958	1.9682	70.40	28.29	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**6.10**	**10.16**	-----	-----
		U_5 - L_6	3.45	38.22	-21.43			0.75	1.00	28.66	-16.08	0.00	0.00	Vehicle	Vehicle	66.58	-30.35	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**8.88**	**14.80**	**12.29**	**20.48**
		U_6 - L_7	-84.29	18.60	-31.30			0.75	1.00	13.95	-23.48	0.00	0.00	Vehicle	Vehicle	-----	-160.44	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	**7.03**	**11.71**
		U_7 - L_7	137.30	64.82	0.00			0.75	1.00	48.61	0.00	0.00	0.00	Vehicle	Vehicle	283.82	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**5.75**	**9.59**	-----	-----
		U_8 - L_8	210.89	77.89	0.00			0.75	1.00	58.42	0.00	0.00	0.00	Vehicle	Vehicle	400.73	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.13**	**8.55**	-----	-----
		U_9 - L_9	236.36	97.69	0.00			0.75	1.00	73.27	0.00	0.00	0.00	Vehicle	Vehicle	466.02	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.43**	**7.39**	-----	-----
		U_{10} - L_{10}	274.62	98.38	0.00			0.75	1.00	73.78	0.00	0.00	0.00	Vehicle	Vehicle	516.87	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.63**	**7.72**	-----	-----
		U_{11} - L_{11}	281.06	130.61	0.00			0.75	1.00	97.96	0.00	0.00	0.00	Vehicle	Vehicle	577.62	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.45**	**5.75**	-----	-----
		U_{12} - L_{12}	278.12	108.92	-6.80			0.75	1.00	81.69	-5.10	0.00	0.00	Vehicle	Vehicle	538.55	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.67**	**6.11**	-----	-----
		U_{13} - L_{13}	235.45	94.78	-11.42			0.75	1.00	71.09	-8.56	0.00	0.00	Vehicle	Vehicle	460.10	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.58**	**7.63**	-----	-----
		U_{14} - L_{15}	143.03	73.10	-23.94			0.75	1.00	54.82	-17.95	0.00	0.00	Vehicle	Vehicle	304.72	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.56**	**9.26**	-----	-----
		U_{15} - L_{16}	171.91	91.17	-22.46			0.75	1.00	68.38	-16.84	0.00	0.00	Vehicle	Vehicle	371.63	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.20**	**7.00**	-----	-----
		U_{16} - L_{17}	181.04	113.92	-12.53			0.75	1.00	85.44	-9.40	0.00	0.00	Vehicle	Vehicle	420.48	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.72**	**6.19**	-----	-----
		U_{17} - L_{18}	171.16	112.16	-11.85			0.75	1.00	84.12	-8.89	0.00	0.00	Vehicle	Vehicle	404.77	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.42**	**5.70**	-----	-----
		U_{18} - L_{19}	150.64	71.23	-5.02			0.75	1.00	53.42	-3.76	0.00	0.00	Vehicle	Vehicle	311.58	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.62**	**9.36**	-----	-----
		U_{19} - L_{20}	125.86	62.20	-4.87			0.75	1.00	46.65	-3.65	0.00	0.00	Vehicle	Vehicle	264.70	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**6.14**	**10.23**	-----	-----
		U_{20} - L_{21}	76.05	60.29	-1.29			0.75	1.00	45.21	-0.97	0.00	0.00	Vehicle	Vehicle	196.83	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.67**	**7.78**	-----	-----
		U_{21} - L_{22}	38.34	39.39	-15.75			0.75	1.00	29.54	-11.81	0.00	0.00	Vehicle	Vehicle	113.85	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**7.91**	**13.18**	-----	-----
		U_{22} - L_{22}	18.02	41.55	-10.01			0.75	1.00	31.16	-7.51	0.00	0.00	Vehicle	Vehicle	90.94	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**7.89**	**13.15**	-----	-----
		U_{24} - L_{23}	58.54	60.68	-2.88			0.75	1.00	45.51	-2.16	0.00	0.00	Vehicle	Vehicle	174.71	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.87**	**8.11**	-----	-----
		U_{25} - L_{24}	114.92	70.98	-5.19			0.75	1.00	53.24	-3.89	0.00	0.00	Vehicle	Vehicle	264.75	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**5.50**	**9.17**	-----	-----
		U_{26} - L_{25}	142.93	82.11	-4.40			0.75	1.00	61.58	-3.30	0.00	0.00	Vehicle	Vehicle	319.24	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.95**	**8.24**	-----	-----
		U_{27} - L_{26}	173.71	114.85	-7.75			0.75	1.00	86.14	-5.82	0.00	0.00	Vehicle	Vehicle	412.46	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.32**	**5.54**	-----	-----
		U_{28} - L_{27}	186.49	117.03	-7.33			0.75	1.00	87.77	-5.50	0.00	0.00	Vehicle	Vehicle	432.61	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.58**	**5.97**	-----	-----
		U_{29} - L_{28}	190.57	104.86	-9.50			0.75	1.00	78.65	-7.12	0.00	0.00	Vehicle	Vehicle	418.14	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.51**	**5.85**	-----	-----
		U_{30} - L_{29}	161.74	85.87	-13.85			0.75	1.00	64.40	-10.39	0.00	0.00	Vehicle	Vehicle	349.80	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.56**	**7.59**	-----	-----
		U_{30} - L_{31}	191.49	86.60	-17.00			0.75	1.00	64.95	-12.75	0.00	0.00	Vehicle	Vehicle	389.66	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.41**	**9.02**	-----	-----
		U_{31} - L_{32}	226.17	108.15	-15.13			0.75	1.00	81.11	-11.35	0.00	0.00	Vehicle	Vehicle	469.77	-----	0.00	30.63	30.6305	1010.81	131.71	17.8750	2.8427	56.59	29.95	-779.87	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.08**	**6.80**	-----	-----
		U_{32} - L_{33}	243.26	127.73	-2.66			0.75	1.00	95.80	-2.00	0.00	0.00	Vehicle	Vehicle	523.80	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.77**	**6.28**	-----	-----
		U_{33} - L_{34}	238.98	89.01	-2.04			0.75	1.00	66.75	-1.53	0.00	0.00	Vehicle	Vehicle	455.31	-----	0.00	33.27	33.2657	1097.77	131.71	14.5729	2.8573	45.90	31.00	-876.43	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**5.44**	**9.07**	-----	-----
		U_{34} - L_{35}	222.10	78.93	0.00			0.75	1.00	59.20	0.00	0.00	0.00	Vehicle	Vehicle	416.99	-----	0.00	30.63	30.6305	1010.81	131.71	13.7604	2.8427	43.57	31.19	-812.18

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	(No Impact) Pedestrian Load MAX	(No Impact) Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capicity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Upper Chord	Structure 1	U_0 - U_1	-66.77	12.71	-38.85	2.20	-8.83	0.90	1.00	11.43	-34.96	2.20	-8.83	Vehicle	Vehicle	-----	-162.55	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	8.56	14.26
		U_1 - U_2	-86.66	30.98	-71.48	6.00	-16.34	0.90	1.00	27.88	-64.33	6.00	-16.34	Vehicle	Vehicle	-----	-252.04	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	4.46	7.44
		U_2 - U_3	-48.28	45.79	-68.63	9.44	-19.05	0.90	1.00	41.21	-61.77	9.44	-19.05	Vehicle	Vehicle	-----	-196.58	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	5.02	8.37
		U_3 - U_4	36.43	58.87	-55.48	12.72	-17.47	0.90	1.00	52.98	-49.93	12.72	-17.47	Vehicle	Pedestrian	162.15	-62.17	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	7.19	11.98	7.14	8.93
		U_4 - U_5	38.78	59.04	-54.96	12.78	-17.37	0.90	1.00	53.14	-49.46	12.78	-17.37	Vehicle	Pedestrian	165.54	-58.19	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	7.14	11.90	7.23	9.04
		U_5 - U_6	154.43	65.51	-30.79	15.13	-12.03	0.90	1.00	58.96	-27.71	15.13	-12.03	Vehicle	Pedestrian	328.50	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	5.26	8.76	-----	-----
		U_6 - U_7	288.19	70.38	-6.68	17.11	-4.31	0.90	1.00	63.35	-6.02	17.11	-4.31	Vehicle	Pedestrian	511.90	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	4.89	8.15	-----	-----
		U_7 - U_8	410.75	90.61	-1.11	22.59	0.00	0.90	1.00	81.55	-1.00	22.59	0.00	Vehicle	Vehicle	710.66	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	5.15	8.58	-----	-----
		U_8 - U_9	311.35	67.88	0.00	19.05	0.00	0.90	1.00	61.09	0.00	19.05	0.00	Vehicle	Vehicle	537.11	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	6.16	10.27	-----	-----
		U_9 - U_{10}	78.25	42.53	-24.95	12.28	-6.83	0.90	1.00	38.28	-22.45	12.28	-6.83	Vehicle	Vehicle	184.66	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	-----	-----	42.67	-----	-----	10.67	-----	-----	9.89	16.48	-----	-----
		U_{10} - U_{11}	-141.75	40.32	-72.46	11.11	-18.45	0.90	1.00	36.29	-65.21	11.11	-18.45	Vehicle	Vehicle	-----	-325.56	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.19	6.99
		U_{11} - U_{12}	-338.40	37.38	-116.05	9.77	-27.96	0.90	1.00	33.64	-104.44	9.77	-27.96	Vehicle	Vehicle	-----	-666.21	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	43.05	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	2.72	4.54
		U_{12} - U_{13}	-480.50	32.90	-130.78	8.23	-34.35	0.90	1.00	29.61	-117.70	8.23	-34.35	Vehicle	Vehicle	-----	-879.66	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	44.40	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	3.35	5.58
		U_{13} - U_{14}	-571.10	28.10	-136.30	6.68	-37.24	0.90	1.00	25.29	-122.67	6.68	-37.24	Vehicle	Vehicle	-----	-1008.21	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.77	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.70	6.17
		U_{14} - U_{15}	-571.52	27.97	-136.15	6.65	-37.25	0.90	1.00	25.17	-122.53	6.65	-37.25	Vehicle	Vehicle	-----	-1008.46	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.76	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.70	6.17
		U_{15} - U_{16}	-582.34	21.94	-125.15	4.98	-36.14	0.90	1.00	19.74	-112.63	4.98	-36.14	Vehicle	Vehicle	-----	-1001.07	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.93	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.97	6.62
		U_{16} - U_{17}	-539.92	16.46	-107.76	3.53	-31.87	0.90	1.00	14.81	-96.98	3.53	-31.87	Vehicle	Vehicle	-----	-912.02	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	4.87	8.12
		U_{17} - U_{18}	-422.72	10.66	-79.09	2.26	-25.07	0.90	1.00	9.60	-71.18	2.26	-25.07	Vehicle	Pedestrian	-----	-705.94	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	4.56	5.69
		U_{18} - U_{19}	-286.53	6.02	-50.76	1.28	-16.97	0.90	1.00	5.42	-45.68	1.28	-16.97	Vehicle	Pedestrian	-----	-474.30	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	4.99	6.24
		U_{19} - U_{20}	-140.97	2.55	-22.88	0.55	-8.68	0.90	1.00	2.30	-20.60	0.55	-8.68	Vehicle	Pedestrian	-----	-230.83	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	14.66	18.33
	Structure 2	U_0 - U_1	-147.48	8.35	-29.54	0.45	-4.88	0.90	1.00	7.51	-26.59	0.45	-4.88	Vehicle	Vehicle	-----	-249.33	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	11.28	18.80
		U_1 - U_2	-319.09	16.38	-71.51	1.96	-13.36	0.90	1.00	14.74	-64.35	1.96	-13.36	Vehicle	Vehicle	-----	-554.25	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.40	7.34
		U_2 - U_3	-460.93	29.66	-109.93	3.77	-20.95	0.90	1.00	26.69	-98.93	3.77	-20.95	Vehicle	Vehicle	-----	-813.56	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.50	4.00	0.50	16.00	95.35	272.00	30.22	44.79	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.74	6.23
		U_3 - U_4	-580.02	45.30	-147.95	5.92	-27.68	0.90	1.00	40.77	-133.15	5.92	-27.68	Vehicle	Vehicle	-----	-1042.53	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.17	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.43	5.72
		U_4 - U_5	-616.47	58.78	-169.35	7.86	-31.35	0.90	1.00	52.90	-152.41	7.86	-31.35	Vehicle	Vehicle	-----	-1131.64	15.14	69.44	54.2975	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.65	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.43	5.71
		U_5 - U_6	-604.69	72.35	-184.00	9.87	-32.88	0.90	1.00	65.12	-165.60	9.87	-32.88	Vehicle	Vehicle	-----	-1144.89	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.39	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.20	5.33
		U_6 - U_7	-514.75	82.51	-178.70	11.56	-31.23	0.90	1.00	74.26	-160.83	11.56	-31.23	Vehicle	Vehicle	-----	-1017.64	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.71	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.08	5.14
		U_7 - U_8	-512.80	82.58	-178.36	11.57	-31.18	0.90	1.00	74.32	-160.52	11.57	-31.18	Vehicle	Vehicle	-----	-1014.43	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.78	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.10	5.16
		U_8 - U_9	-373.48	91.47	-154.29	13.16	-27.41	0.90	1.00	82.33	-138.86	13.16	-27.41	Vehicle	Vehicle	-----	-786.39	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	3.25	5.42
		U_9 - U_{10}	-181.02	95.18	-115.68	14.25	-21.42	0.90	1.00	85.67	-104.11	14.25	-21.42	Vehicle	Vehicle	-----	-460.89	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	4.06	6.77
		U_{10} - U_{11}	26.21	97.83	-76.39	15.21	-14.40	0.90	1.00	88.05	-68.75	15.21	-14.40	Vehicle	Vehicle	224.85	-114.90	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	6.03	10.04	6.94	11.57
		U_{11} - U_{12}	237.41	94.64	-34.17	15.56	-6.85	0.90	1.00	85.17	-30.75	15.56	-6.85	Vehicle	Vehicle	493.17	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	4.74	7.90	-----	-----
		U_{12} - U_{13}	435.92	105.23	-24.06	18.38	0.00	0.90	1.00	94.71	-21.65	18.38	0.00	Vehicle	Vehicle	771.89	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	4.46	7.43	-----	-----
		U_{13} - U_{14}	595.85	129.55	-11.31	24.32	0.00	0.90	1.00	116.60	-10.18	24.32	0.00	Vehicle	Vehicle	1027.23	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.98	8.31	-----	-----
		U_{14} - U_{15}	615.52	121.50	-5.47	24.37	0.00	0.90	1.00	109.35	-4.92	24.37	0.00	Vehicle	Vehicle	1037.11	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.21	8.68	-----	-----
		U_{15} - U_{16}	486.12	88.43	-4.93	18.61	0.00	0.90	1.00	79.59	-4.44	18.61	0.00	Vehicle	Vehicle	804.40	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	5.93	9.88	-----	-----
		U_{16} - U_{17}	339.23	77.01	-14.10	14.66	-2.95	0.90	1.00	69.31	-12.69	14.66	-2.95	Vehicle	Vehicle	591.17	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	7.11	-----	-----	6.10	10.17	-----	-----
		U_{17} - U_{18}	192.06	82.64	-53.11	15.12	-9.49	0.90	1.00	74.37	-47.79	15.12	-9.49	Vehicle	Vehicle	410.82	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	4.63	7.72	-----	-----
		U_{18} - U_{19}	53.73	85.45	-88.80	15.12	-15.34	0.90	1.00	76.91	-79.92	15.12	-15.34	Vehicle	Vehicle	236.48	-103.31	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	5.56	9.27	5.26	8.77
		U_{19} - U_{20}	-59.08	88.03	-120.54	15.07	-19.84	0.90	1.00	79.23	-108.48	15.07	-19.84	Vehicle	Vehicle	94.85	-311.85	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.66	11.10	3.51	5.84
	Structure 3	U_{20} - U_{21}	-125.50	87.96	-125.82	14.76	-22.39	0.90	1.00	79.16	-113.24	14.76	-22.39	Vehicle	Vehicle	-----	-408.49	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.77	6.28
		U_{21} - U_{22}	-146.93	87.10	-122.04	14.37	-22.74	0.90	1.00	78.39	-109.83	14.37	-22.74	Vehicle	Vehicle	-----	-428.98	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.77	6.28
		U_{22} - U_{23}	-146.70	86.96	-121.74	14.36	-22.72	0.90	1.00	78.27	-109.57	14.36	-22.72	Vehicle	Vehicle	-----	-428.11	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.78	6.30
		U_{23} - U_{24}	-112.76	83.44	-104.68	13.87	-21.04	0.90	1.00	75.10	-94.21	13.87	-21.04	Vehicle	Vehicle	-----	-350.72	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.61	7.68
		U_{24} - U_{25}	-36.27	79.51	-81.63	13.40	-17.33	0.90	1.00	71.56	-73.47	13.40	-17.33	Vehicle	Vehicle	107.89	-206.34	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	7.18	11.97	5.36	8.94
		U_{25} - U_{26}	80.70	73.08	-49.49	12.92	-12.15	0.90	1.00	65.77	-44.54	12.92	-12.15	Vehicle	Vehicle	247.41	-----	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	6.25	10.42	-----	-----
		U_{26} - U_{27}	220.59	67.15	-19.39	12.57	-7.08	0.90	1.00	60.44	-17.45	12.57	-7.08	Vehicle	Pedestrian	417.72	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	5.42	9.03	-----	-----
		U_{27} - U_{28}	363.31	72.60	-1.02	14.90	-2.16	0.90	1.00	65.34	-0.92	14.90	-2.16	Vehicle	Pedestrian	613.87	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	7.11	-----	-----	6.25	10.42	-----	-----
		U_{28} - U_{29}	503.82	105.08	0.00	21.74	0.00	0.90	1.00	94.57	0.00	21.74	0.00	Vehicle	Vehicle	859.88	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	4.88	8.13	-----	-----
		U_{29} - U_{30}	616.57	127.27	-11.00	27.08	0.00	0.90	1.00	114.54	-9.90	27.08	0.00	Vehicle	Vehicle	1049.71	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.96	8.27	-----	-----
		U_{30} - U_{31}	559.74	117.44	-26.86	25.79	0.00	0.90	1.00	105.69

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	(No Impact) Pedestrian Load$_{MAX}$	(No Impact) Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capicity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Lower Chord	Structure 1	L$_0$- L$_1$	-2.01	9.06	-5.29	0.36	-2.06	0.90	1.00	8.15	-4.76	0.36	-2.06	Vehicle	Pedestrian	15.06	-13.68	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	**37.13**	**61.89**	**49.49**	**61.87**
		L$_1$ - L$_2$	67.91	37.67	-18.02	9.23	-3.36	0.90	1.00	33.91	-16.22	9.23	-3.36	Vehicle	Vehicle	161.74	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.69**	**12.82**	-----	-----
		L$_2$ - L$_3$	78.84	76.12	-38.84	15.48	-7.39	0.90	1.00	68.51	-34.96	15.48	-7.39	Vehicle	Vehicle	250.93	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**5.17**	**8.61**	-----	-----
		L$_3$ - L$_4$	39.14	72.67	-53.61	18.09	-10.83	0.90	1.00	65.40	-48.25	18.09	-10.83	Vehicle	Vehicle	192.59	-53.65	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	**5.77**	**9.62**	**7.49**	**12.48**
		L$_4$ - L$_5$	-166.38	40.21	-76.15	10.96	-16.90	0.90	1.00	36.19	-68.53	10.96	-16.90	Vehicle	Vehicle	-----	-364.79	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**2.92**	**4.87**
		L$_5$ - L$_6$	-301.23	15.60	-81.28	3.23	-18.93	0.90	1.00	14.04	-73.15	3.23	-18.93	Vehicle	Vehicle	-----	-550.09	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	42.72	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**2.94**	**4.90**
		L$_6$ - L$_7$	-438.94	5.24	-95.32	0.00	-26.51	0.90	1.00	4.71	-85.79	0.00	-26.51	Vehicle	Vehicle	-----	-756.49	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	43.61	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.54**	**5.90**
		L$_7$ - L$_8$	-551.65	0.75	-115.95	0.00	-35.55	0.90	1.00	0.68	-104.36	0.00	-35.55	Vehicle	Pedestrian	-----	-944.49	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	44.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.70**	**4.63**
		L$_8$ - L$_9$	-570.53	4.28	-126.06	0.00	-37.48	0.90	1.00	3.85	-113.45	0.00	-37.48	Vehicle	Vehicle	-----	-987.49	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	43.04	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.33**	**5.54**
		L$_9$ - L$_{10}$	-355.48	8.57	-81.97	0.00	-24.70	0.90	1.00	7.71	-73.77	0.00	-24.70	Vehicle	Pedestrian	-----	-622.13	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**4.79**	**5.99**
		L$_{10}$ - L$_{11}$	-118.48	21.02	-35.31	0.00	-12.43	0.90	1.00	18.91	-31.78	0.00	-12.43	Vehicle	Pedestrian	-----	-225.86	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**6.91**	**8.64**
		L$_{11}$ - L$_{12}$	103.45	56.94	-32.98	9.96	-9.47	0.90	1.00	51.24	-29.69	9.96	-9.47	Vehicle	Vehicle	245.51	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.74**	**9.57**	-----	-----
		L$_{12}$ - L$_{13}$	300.60	106.90	-30.92	17.83	-8.14	0.90	1.00	96.21	-27.83	17.83	-8.14	Vehicle	Vehicle	599.24	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.20**	**7.01**	-----	-----
		L$_{13}$ - L$_{14}$	441.19	121.28	-26.48	24.15	-6.61	0.90	1.00	109.15	-23.83	24.15	-6.61	Vehicle	Vehicle	810.04	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.76**	**7.94**	-----	-----
		L$_{14}$ - L$_{15}$	547.00	120.35	-17.40	24.57	-3.49	0.90	1.00	108.32	-15.66	24.57	-3.49	Vehicle	Vehicle	945.79	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.69**	**9.49**	-----	-----
		L$_{15}$ - L$_{16}$	506.09	103.14	-16.49	20.32	-2.03	0.90	1.00	92.82	-14.84	20.32	-2.03	Vehicle	Vehicle	859.03	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**6.91**	**11.51**	-----	-----
		L$_{16}$ - L$_{17}$	398.75	79.00	-14.95	12.72	-0.83	0.90	1.00	71.10	-13.45	12.72	-0.83	Vehicle	Vehicle	672.43	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	**6.90**	**11.50**	-----	-----
		L$_{17}$ - L$_{18}$	263.81	61.25	-12.35	4.81	0.00	0.90	1.00	55.13	-11.12	4.81	0.00	Vehicle	Vehicle	462.39	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	**6.74**	**11.24**	-----	-----
		L$_{18}$ - L$_{19}$	118.75	49.66	-9.77	0.71	-3.38	0.90	1.00	44.70	-8.80	0.71	-3.38	Vehicle	Pedestrian	251.22	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**5.15**	**8.59**	-----	-----
		L$_{19}$ - L$_{20}$	-23.36	43.19	-8.12	1.28	-12.08	0.90	1.00	38.87	-7.31	1.28	-12.08	Vehicle	Pedestrian	53.86	-61.87	1.95	19.80	17.8500	653.40	131.71	10.8073	5.6265	17.41	32.71	-550.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	**8.12**	**13.53**	**16.51**	**20.64**
		L$_0$- L$_1$	-36.12	24.37	-16.52	1.33	-5.14	0.90	1.00	21.93	-14.86	1.33	-5.14	Vehicle	Pedestrian	-----	-79.47	1.88	24.95	23.0700	823.35	131.71	10.8828	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	45.00	Pass	6.32	12.00	Pass	6.32	12.00	Pass	-----	-----	**19.95**	**24.93**
		L$_1$ - L$_2$	132.64	28.99	-6.89	2.93	-0.06	0.90	1.00	26.09	-6.20	2.93	-0.06	Vehicle	Vehicle	228.98	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**11.51**	**19.19**	-----	-----
		L$_2$ - L$_3$	303.94	68.95	-18.08	10.52	-1.79	0.90	1.00	62.06	-16.27	10.52	-1.79	Vehicle	Vehicle	529.58	-----	6.20	38.45	32.2500	1268.85	131.71	10.7370	6.1675	15.67	32.77	-1070.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	**6.50**	**10.83**	-----	-----
		L$_3$ - L$_4$	445.73	107.52	-31.50	18.15	-3.63	0.90	1.00	96.77	-28.35	18.15	-3.63	Vehicle	Vehicle	789.11	-----	9.45	51.58	42.1250	1701.98	131.71	10.7370	5.7558	16.79	32.73	-1434.93	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	**5.35**	**8.92**	-----	-----
		L$_4$ - L$_5$	567.64	151.77	-50.18	24.81	-6.10	0.90	1.00	136.59	-45.16	24.81	-6.10	Vehicle	Vehicle	1033.88	-----	11.00	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.90	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.75**	**7.92**	-----	-----
		L$_5$ - L$_6$	603.43	173.07	-63.74	28.47	-8.06	0.90	1.00	155.77	-57.37	28.47	-8.06	Vehicle	Vehicle	1121.96	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.58**	**7.64**	-----	-----
		L$_6$ - L$_7$	599.28	194.18	-80.60	30.25	-10.41	0.90	1.00	174.76	-72.54	30.25	-10.41	Vehicle	Vehicle	1157.71	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	**4.18**	**6.97**	-----	-----
		L$_7$ - L$_8$	373.73	165.37	-99.57	24.92	-13.66	0.90	1.00	148.84	-89.62	24.92	-13.66	Vehicle	Vehicle	808.32	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	**3.90**	**6.50**	-----	-----
		L$_8$ - L$_9$	195.51	133.76	-106.81	19.51	-15.12	0.90	1.00	120.38	-96.13	19.51	-15.12	Vehicle	Vehicle	514.99	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	**4.51**	**7.51**	-----	-----
		L$_9$ - L$_{10}$	-13.41	94.31	-109.67	12.45	-16.11	0.90	1.00	84.88	-98.70	12.45	-16.11	Vehicle	Vehicle	166.47	-231.30	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	**6.19**	**10.31**	**4.34**	**7.24**
		L$_{10}$ - L$_{11}$	-217.51	56.76	-110.51	5.50	-17.02	0.90	1.00	51.08	-99.46	5.50	-17.02	Vehicle	Vehicle	-----	-498.25	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.78	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	44.49	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.61**	**4.35**
		L$_{11}$ - L$_{12}$	-420.12	46.16	-107.75	0.00	-23.35	0.90	1.00	41.54	-96.97	0.00	-23.35	Vehicle	Vehicle	-----	-756.26	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	43.22	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.16**	**5.27**
		L$_{12}$ - L$_{13}$	-591.61	27.50	-133.95	0.00	-30.09	0.90	1.00	24.75	-120.56	0.00	-30.09	Vehicle	Vehicle	-----	-1030.29	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	43.35	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.40**	**5.67**
		L$_{13}$ - L$_{14}$	-724.42	17.72	-152.32	0.00	-35.12	0.90	1.00	15.94	-137.09	0.00	-35.12	Vehicle	Vehicle	-----	-1238.77	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.11	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.46**	**5.77**
		L$_{14}$ - L$_{15}$	-747.19	18.24	-163.74	0.00	-36.29	0.90	1.00	16.42	-147.36	0.00	-36.29	Vehicle	Vehicle	-----	-1290.63	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	42.23	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.13**	**5.21**
		L$_{15}$ - L$_{16}$	-632.29	17.58	-136.81	0.00	-31.22	0.90	1.00	15.82	-123.13	0.00	-31.22	Vehicle	Vehicle	-----	-1088.74	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	42.17	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.13**	**5.22**
		L$_{16}$ - L$_{17}$	-488.73	20.04	-95.37	0.00	-25.40	0.90	1.00	18.04	-85.83	0.00	-25.40	Vehicle	Vehicle	-----	-821.30	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	44.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.91**	**6.51**
		L$_{17}$ - L$_{18}$	-337.06	23.47	-64.53	0.00	-18.13	0.90	1.00	21.12	-58.08	0.00	-18.13	Vehicle	Vehicle	-----	-564.01	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	44.22	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**4.03**	**6.72**
		L$_{18}$ - L$_{19}$	-183.64	34.49	-58.10	4.48	-11.34	0.90	1.00	31.04	-52.29	4.48	-11.34	Vehicle	Vehicle	-----	-352.03	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.47**	**7.46**
		L$_{19}$ - L$_{20}$	-45.76	69.22	-60.91	8.92	-9.58	0.90	1.00	62.30	-54.82	8.92	-9.58	Vehicle	Vehicle	75.50	-178.25	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.98**	**11.63**	**5.78**	**9.63**
	Structure 2	L$_0$ - L$_{21}$	68.06	107.67	-65.92	11.57	-9.12	0.90	1.00	96.90	-59.33	11.57	-9.12	Vehicle	Vehicle	298.43	-----	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.55**	**9.25**	-----	-----
		L$_{21}$ - L$_{22}$	134.01	112.76	-65.90	13.61	-8.81	0.90	1.00	101.49	-59.31	13.61	-8.81	Vehicle	Vehicle	394.10	-----	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.91**	**8.18**	-----	-----
		L$_{22}$ - L$_{23}$	122.68	97.63	-66.76	11.79	-7.57	0.90	1.00	87.86	-60.09	11.79	-7.57	Vehicle	Vehicle	349.86	-----	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.75**	**9.58**	-----	-----
		L$_{23}$ - L$_{24}$	46.89	77.53	-66.58	8.09	-7.09	0.90	1.00	69.77	-59.92	8.09	-7.09	Vehicle	Vehicle	212.14	-68.87	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**7.89**	**13.15**	**8.62**	**14.37**
		L$_{24}$ - L$_{25}$	-66.54	69.91	-68.93	3.32	-6.23	0.90	1.00	62.92	-62.04	3.32	-6.23	Vehicle	Vehicle	-----	-220.91	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.90**	**8.17**
		L$_{25}$ - L$_{26}$	-205.63	64.57	-64.18	0.00	-11.77	0.90	1.00	58.11	-57.76	0.00	-11.77	Vehicle	Vehicle	-----	-392.47	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.82**	**6.37**
		L$_{26}$ - L$_{27}$	-350.43	60.55	-67.83	0.00	-18.87	0.90	1.00	54.49	-61.05	0.00	-18.87	Vehicle	Vehicle	-----	-587.82	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	43.32	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.71**	**6.18**
		L$_{27}$ - L$_{28}$	-494.65	51.19	-101.24	0.00	-25.89	0.90	1.00	46.07	-91.11	0.00	-25.89	Vehicle	Vehicle	-----	-840.45	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	43.50	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.64**	**6.07**
		L$_{28}$ - L$_{29}$	-620.83	44.11	-123.99	0.00	-31.78	0.90	1.00	39.70	-111.59	0.00	-31.78	Vehicle	Vehicle	-----	-1048.85	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	42.97	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.52**	**5.87**
		L$_{29}$ - L$_{30}$	-716.91	35.13	-140.76	0.00	-36.29	0.90	1.00	31.62	-126.69	0.00	-36.29	Vehicle	Vehicle	-----	-1206.47	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.68	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.78**	**6.30**

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Artic
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	(No Impact) Pedestrian Load$_{MAX}$	(No Impact) Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Verticals	Structure 1	U$_0$ - L$_0$	-93.72	19.00	-59.06	3.44	-12.32	0.90	1.00	17.10	-53.16	3.44	-12.32	Vehicle	Vehicle	-----	-237.01	1.63	16.85	15.2186	556.00	131.71	9.3438	1.9682	42.73	31.26	-447.73	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	2.83	4.72
		U$_1$ - L$_1$	-46.53	16.44	-39.66	2.93	-9.05	0.90	1.00	14.80	-35.69	2.93	-9.05	Vehicle	Vehicle	-----	-137.83	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.14	8.56
		U$_2$ - L$_2$	-0.10	14.71	-28.59	2.84	-5.68	0.90	1.00	13.24	-25.73	2.84	-5.68	Vehicle	Vehicle	28.56	-55.87	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	8.21	13.68
		U$_3$ - L$_3$	39.60	18.50	-3.84	2.69	-2.12	0.90	1.00	16.65	-3.46	2.69	-2.12	Vehicle	Pedestrian	87.54	-----	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	13.99	23.31	-----	-----
		U$_4$ - L$_4$	-30.20	1.64	-13.36	0.00	-3.46	0.90	1.00	1.48	-12.03	0.00	-3.46	Vehicle	Vehicle	-----	-65.32	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	15.95	26.58
		U$_5$ - L$_5$	-130.49	1.39	-37.02	0.00	-10.23	0.90	1.00	1.25	-33.31	0.00	-10.23	Vehicle	Vehicle	-----	-241.81	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	5.31	8.85
		U$_6$ - L$_6$	-158.18	6.05	-46.57	0.00	-13.06	0.90	1.00	5.45	-41.92	0.00	-13.06	Vehicle	Vehicle	-----	-296.45	3.13	24.86	21.7294	820.36	131.71	9.9479	2.0895	42.85	31.25	-660.40	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	5.01	8.35
		U$_7$ - L$_7$	-152.32	10.75	-41.93	0.00	-13.24	0.90	1.00	9.67	-37.74	0.00	-13.24	Vehicle	Pedestrian	-----	-280.86	2.88	23.11	20.2294	762.61	131.71	11.7292	2.0414	51.71	30.46	-598.26	16.25	0.44	10.00	0.50	-----	-----	16.25	-----	-----	37.14	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	4.83	6.04
		U$_8$ - L$_8$	-455.55	8.28	-99.83	0.00	-31.72	0.90	1.00	7.45	-89.85	0.00	-31.72	Vehicle	Pedestrian	-----	-789.75	3.28	51.42	48.1423	1696.94	131.71	16.6563	4.0363	37.14	31.69	-1385.05	15.25	0.82	15.64	1.31	-----	-----	15.25	-----	-----	18.60	45.00	Pass	5.96	12.00	Pass	-----	-----	-----	-----	-----	4.01	5.02
		U$_9$ - L$_9$	-287.55	3.30	-71.12	0.00	-18.20	0.90	1.00	2.97	-64.00	0.00	-18.20	Vehicle	Vehicle	-----	-512.49	3.50	31.56	28.0625	1041.56	131.71	12.1563	2.5582	42.77	31.26	-838.65	16.25	0.50	12.00	0.63	-----	-----	16.25	-----	-----	32.50	44.73	Pass	9.60	12.00	Pass	-----	-----	-----	-----	-----	3.35	5.59
		U$_{10}$ - L$_{10}$	-276.32	1.76	-71.34	0.00	-17.54	0.90	1.00	1.58	-64.20	0.00	-17.54	Vehicle	Vehicle	-----	-498.32	2.76	36.13	33.3715	1192.34	131.71	10.7083	2.3777	40.53	31.44	-965.49	16.16	0.83	11.50	0.80	-----	-----	16.16	-----	-----	19.50	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	4.36	7.26
		U$_{11}$ - L$_{11}$	-232.59	1.88	-63.42	0.00	-14.41	0.90	1.00	1.70	-57.08	0.00	-14.41	Vehicle	Vehicle	-----	-426.04	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.30	7.16
		U$_{12}$ - L$_{12}$	-178.43	1.19	-53.57	0.00	-11.20	0.90	1.00	1.07	-48.21	0.00	-11.20	Vehicle	Vehicle	-----	-336.41	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	-----	-----	16.25	-----	-----	32.50	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	4.41	7.34
		U$_{13}$ - L$_{13}$	-127.74	1.07	-22.75	0.00	-7.88	0.90	1.00	0.96	-20.47	0.00	-7.88	Vehicle	Pedestrian	-----	-212.13	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	7.13	8.91
		U$_{14}$ - L$_{14}$	-30.39	0.24	-14.00	0.00	-3.03	0.90	1.00	0.22	-12.60	0.00	-3.03	Vehicle	Vehicle	-----	-66.80	0.00	16.85	16.8486	556.00	131.71	9.2605	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	14.97	24.96
		U$_{15}$ - L$_{15}$	-28.94	6.52	-20.81	1.55	-4.54	0.90	1.00	5.87	-18.73	1.55	-4.54	Vehicle	Vehicle	-----	-78.19	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	10.07	16.78
		U$_{16}$ - L$_{16}$	-76.03	6.38	-26.54	1.39	-7.08	0.90	1.00	5.74	-23.89	1.39	-7.08	Vehicle	Vehicle	-----	-150.60	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.66	11.11
		U$_{17}$ - L$_{17}$	-161.89	6.95	-40.01	1.30	-10.66	0.90	1.00	6.25	-36.01	1.30	-10.66	Vehicle	Vehicle	-----	-288.47	0.00	20.66	20.0644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	4.16	6.93
		U$_{18}$ - L$_{18}$	-190.28	5.97	-41.77	1.12	-12.71	0.90	1.00	5.37	-37.59	1.12	-12.71	Vehicle	Pedestrian	-----	-329.10	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	5.33	6.66
		U$_{19}$ - L$_{19}$	-228.17	5.11	-43.28	0.97	-14.98	0.90	1.00	4.60	-38.95	0.97	-14.98	Vehicle	Pedestrian	-----	-384.26	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	5.76	7.20
		U$_{20}$ - L$_{20}$	-242.83	4.59	-42.30	0.95	-15.63	0.90	1.00	4.13	-38.07	0.95	-15.63	Vehicle	Pedestrian	-----	-402.94	0.00	30.63	30.6305	1010.81	131.71	20.3229	2.8427	64.34	29.06	-756.66	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	5.05	6.32
	Structure 2	U$_0$ - L$_0$	-303.03	17.00	-78.50	2.22	-15.08	0.90	1.00	15.30	-70.65	2.22	-15.08	Vehicle	Vehicle	-----	-547.02	0.00	33.27	33.2657	1097.77	131.71	19.1510	2.8573	60.32	29.54	-835.23	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	44.45	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	2.88	4.80
		U$_1$ - L$_1$	-268.78	17.28	-68.22	2.12	-13.67	0.90	1.00	15.55	-61.39	2.12	-13.67	Vehicle	Vehicle	-----	-482.43	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.95	6.58
		U$_2$ - L$_2$	-220.87	18.55	-63.77	2.34	-12.32	0.90	1.00	16.70	-57.39	2.34	-12.32	Vehicle	Vehicle	-----	-411.48	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.70	6.16
		U$_3$ - L$_3$	-175.23	19.88	-57.11	2.49	-10.35	0.90	1.00	17.89	-51.40	2.49	-10.35	Vehicle	Vehicle	-----	-339.16	0.00	22.73	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	45.00	Pass	4.91	12.00	Pass	-----	-----	-----	-----	-----	3.23	5.38
		U$_4$ - L$_4$	-82.08	17.07	-38.79	2.21	-6.62	0.90	1.00	15.36	-34.91	2.21	-6.62	Vehicle	Vehicle	-----	-182.33	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	4.42	7.36
		U$_5$ - L$_5$	-19.89	16.84	-27.36	2.23	-4.16	0.90	1.00	15.16	-24.63	2.23	-4.16	Vehicle	Vehicle	-----	-79.22	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	7.81	13.02
		U$_6$ - L$_6$	60.32	12.21	-7.57	1.75	-0.47	0.90	1.00	10.98	-6.81	1.75	-0.47	Vehicle	Vehicle	102.22	-----	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	20.07	33.44	-----	-----
		U$_7$ - L$_7$	-41.77	0.59	-28.43	0.00	-2.50	0.90	1.00	0.53	-25.59	0.00	-2.50	Vehicle	Vehicle	-----	-109.74	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	7.01	11.68
		U$_8$ - L$_8$	-189.01	0.13	-40.86	0.00	-8.38	0.90	1.00	0.11	-36.77	0.00	-8.38	Vehicle	Vehicle	-----	-325.39	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	-----	-----	15.75	-----	-----	36.00	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	5.57	9.29
		U$_9$ - L$_9$	-253.99	1.59	-63.98	0.00	-10.55	0.90	1.00	1.43	-57.58	0.00	-10.55	Vehicle	Vehicle	-----	-454.96	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	4.56	7.59
		U$_{10}$ - L$_{10}$	-290.02	3.58	-67.03	0.00	-12.18	0.90	1.00	3.22	-60.32	0.00	-12.18	Vehicle	Vehicle	-----	-507.73	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.86	8.10
		U$_{11}$ - L$_{11}$	-312.18	10.32	-68.20	0.00	-12.59	0.90	1.00	9.28	-61.38	0.00	-12.59	Vehicle	Vehicle	-----	-538.81	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.42	7.37
		U$_{12}$ - L$_{12}$	-327.28	15.51	-65.98	0.00	-13.75	0.90	1.00	13.96	-59.38	0.00	-13.75	Vehicle	Vehicle	-----	-554.12	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.79	7.99
		U$_{13}$ - L$_{13}$	-277.21	21.22	-55.66	0.45	-12.38	0.90	1.00	19.10	-50.09	0.45	-12.38	Vehicle	Vehicle	-----	-468.90	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.95	8.24
		U$_{14}$ - L$_{14}$	-505.44	22.26	-102.71	0.00	-21.41	0.90	1.00	20.03	-92.44	0.00	-21.41	Vehicle	Vehicle	-----	-857.35	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	-----	-----	-----	3.55	5.91
		U$_{15}$ - L$_{15}$	-232.94	13.44	-65.77	1.67	-12.16	0.90	1.00	12.09	-59.19	1.67	-12.16	Vehicle	Vehicle	-----	-431.07	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.63	7.72
		U$_{16}$ - L$_{16}$	-260.12	9.59	-79.52	0.83	-13.04	0.90	1.00	8.63	-71.57	0.83	-13.04	Vehicle	Vehicle	-----	-493.22	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.40	5.67
		U$_{17}$ - L$_{17}$	-228.24	9.28	-66.29	0.66	-11.76	0.90	1.00	8.35	-59.66	0.66	-11.76	Vehicle	Vehicle	-----	-425.98	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.97	6.62
		U$_{18}$ - L$_{18}$	-209.27	6.73	-60.53	0.00	-11.28	0.90	1.00	6.06	-54.47	0.00	-11.28	Vehicle	Vehicle	-----	-390.08	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.05	6.75
		U$_{19}$ - L$_{19}$	-166.55	7.66	-52.28	0.00	-9.53	0.90	1.00	6.89	-47.05	0.00	-9.53	Vehicle	Vehicle	-----	-318.46	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	4.40	7.33
		U$_{20}$ - L$_{20}$	-113.95	5.11	-38.27	0.00	-7.50	0.90	1.00	4.59	-34.45	0.00	-7.50	Vehicle	Vehicle	-----	-222.76	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	4.55	7.58
		U$_{21}$ - L$_{21}$	-62.76	5.07	-21.10	0.00	-5.22	0.90	1.00	4.56	-18.99	0.00	-5.22	Vehicle	Vehicle	-----	-122.74	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	8.78	14.63
		U$_{22}$ - L$_{22}$	-38.94	0.44	-14.56	0.00	-2.15	0.90	1.00	0.39	-13.11	0.00	-2.15	Vehicle	Vehicle	-----	-79.01	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	13.87	23.11
		U$_{23}$ - L$_{23}$	-74.43	4.28	-29.27	0.48	-6.10	0.90	1.00	3.86	-26.34	0.48	-6.10	Vehicle	Vehicle	-----	-153.83	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.06	10.10
		U$_{24}$ - L$_{24}$	-121.36	4.77	-51.91	0.37	-8.17	0.90	1.00	4.29	-46.72	0.37	-8.17	Vehicle	Vehicle	-----	-259.00	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	3.26	5.43
		U$_{25}$ - L$_{25}$	-169.12	8.02	-59.64	0.43	-9.94	0.90	1.00	7.22	-53.68	0.43	-9.94	Vehicle	Vehicle	-----	-336.16	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	3.82	6.37
		U$_{26}$ - L$_{26}$	-207.97	8.10	-62.38	0.14	-11.42	0.90	1.00	7.29	-56.14	0.14	-11.42	Vehicle	Vehicle	-----	-392.01	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.95	6.58
		U$_{27}$ - L$_{27}$	-219.96	15.98	-59.84	0.16	-11.49	0.90	1.00	14.38	-53.85	0.16	-11.49	Vehicle	Vehicle	-----	-402.63	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.49	7.49
		U$_{28}$ - L$_{28}$	-240.91	20.31	-62.73	0.00	-12.60	0.90	1.00	18.28	-56.46	0.00	-12.60	Vehicle	Vehicle	-----	-435.51	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	4.52	7.53
		U$_{29}$ - L$_{29}$	-202.73	28.13	-49.77	0.00	-10.35	0.90	1.00	25.32	-44.79	0.00	-10.35	Vehicle	Vehicle	-----	-360.59	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	6.53	10.88
		U$_{30}$ - L$_{30}$	-518.05	21.61	-99.88	0.00	-22.08	0.90	1.00	19.45	-89.89	0.00	-22.08	Vehicle	Vehicle	-----	-868.23	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	44.85	Pass	5.68	12.00	Pass	-----	-----	-----	-----	-----	3.56

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Location		Member	Member Forces from STAAD: D (kips)	LL_{max} (kips)	LL_{min} (kips)	Pedestrian $Load_{MAX}$	Pedestrian $Load_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL_{MAX}	Lane Reduction and Impact LL_{MIN}	(No Impact) Pedestrian $Load_{MAX}$	(No Impact) Pedestrian $Load_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A_{deduct} (in^2) **	A_{gross} (in^2)	A_{net} (in^2)	$C_{Nominal}$ (kips)	Member Capicity in Compression: C_c	L (feet)	r_{min} (in)	KL/r_{min} ***	F_{crit} **** (ksi)	$C_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Diagonals	Structure 1	U_0 - L_1	87.66	62.34	-25.80	14.00	-4.60	0.90	1.00	56.11	-23.22	14.00	-4.60	Vehicle	Vehicle	235.53	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	**5.33**	**8.89**	-----	-----
		U_1 - L_2	23.90	48.22	-25.31	9.20	-4.71	0.90	1.00	43.40	-22.78	9.20	-4.71	Vehicle	Vehicle	125.10	-----	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.58**	**9.30**	-----	-----
		U_2 - L_3	-49.02	6.76	-28.95	3.33	-4.32	0.90	1.00	6.08	-26.06	3.33	-4.32	Pedestrian	Vehicle	-----	-120.18	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**6.57**	**10.94**
		U_3 - L_4	-108.88	1.29	-40.25	0.00	-6.30	0.90	1.00	1.16	-36.23	0.00	-6.30	Vehicle	Vehicle	-----	-220.03	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**3.77**	**6.28**
		U_4 - L_4	153.12	47.01	0.00	10.11	0.00	0.90	1.00	42.30	0.00	10.11	0.00	Vehicle	Vehicle	290.71	-----	0.00	20.66	20.6644	681.93	131.71	11.6953	2.0011	52.60	30.37	-533.41	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**5.27**	**8.78**	-----	-----
		U_5 - L_5	186.35	48.57	-2.24	13.44	0.00	0.90	1.00	43.72	-2.01	13.44	0.00	Vehicle	Vehicle	336.97	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**6.37**	**10.62**	-----	-----
		U_6 - L_6	177.52	51.51	-12.41	14.13	0.00	0.90	1.00	46.36	-11.17	14.13	0.00	Vehicle	Vehicle	331.23	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**6.12**	**10.21**	-----	-----
		U_7 - L_7	173.18	44.95	-12.21	13.87	0.00	0.90	1.00	40.45	-10.99	13.87	0.00	Pedestrian	Vehicle	313.40	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**7.03**	**8.79**	-----	-----
		U_8 - L_8	328.11	78.03	-4.45	19.45	-0.13	0.90	1.00	70.23	-4.00	19.45	-0.13	Vehicle	Vehicle	578.70	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.42**	**9.03**	-----	-----
		U_9 - L_{10}	339.70	83.49	-3.12	19.74	0.00	0.90	1.00	75.14	-2.81	19.74	0.00	Vehicle	Vehicle	604.41	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**4.97**	**8.29**	-----	-----
		U_{10} - L_{11}	313.22	80.66	-2.48	18.15	0.00	0.90	1.00	72.59	-2.23	18.15	0.00	Vehicle	Vehicle	564.46	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**4.94**	**8.23**	-----	-----
		U_{11} - L_{12}	270.68	73.93	-2.51	14.84	0.00	0.90	1.00	66.54	-2.26	14.84	0.00	Vehicle	Vehicle	496.06	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.57**	**7.62**	-----	-----
		U_{12} - L_{13}	194.17	31.81	-1.44	10.79	0.00	0.90	1.00	28.63	-1.29	10.79	0.00	Pedestrian	Vehicle	316.47	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**8.87**	**11.08**	-----	-----
		U_{13} - L_{14}	123.57	23.58	-1.23	5.96	0.00	0.90	1.00	21.22	-1.10	5.96	0.00	Vehicle	Vehicle	206.61	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.60**	**14.33**	-----	-----
		U_{15} - L_{14}	-16.32	18.93	-9.52	1.48	-2.35	0.90	1.00	17.04	-8.57	1.48	-2.35	Vehicle	Vehicle	15.69	-39.79	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**15.64**	**26.06**	**21.84**	**36.41**
		U_{16} - L_{15}	59.12	28.34	-8.87	6.08	-2.09	0.90	1.00	25.51	-7.99	6.08	-2.09	Vehicle	Vehicle	132.12	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.67**	**14.45**	-----	-----
		U_{17} - L_{16}	172.14	46.33	-9.67	9.93	-1.86	0.90	1.00	41.70	-8.70	9.93	-1.86	Vehicle	Vehicle	314.13	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**5.07**	**8.45**	-----	-----
		U_{18} - L_{17}	210.78	47.59	-8.22	12.51	-1.53	0.90	1.00	42.83	-7.40	12.51	-1.53	Vehicle	Vehicle	366.81	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**6.16**	**10.27**	-----	-----
		U_{19} - L_{18}	242.64	50.08	-6.57	13.73	-1.21	0.90	1.00	45.07	-5.91	13.73	-1.21	Vehicle	Vehicle	413.07	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**6.22**	**10.37**	-----	-----
		U_{20} - L_{19}	257.76	45.59	-5.39	15.70	-1.03	0.90	1.00	41.03	-4.85	15.70	-1.03	Pedestrian	Vehicle	427.27	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**6.38**	**7.98**	-----	-----
	Structure 2	U_0 - L_1	298.99	70.93	-18.04	14.21	-2.21	0.90	1.00	63.84	-16.23	14.21	-2.21	Vehicle	Vehicle	527.00	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.50**	**7.50**	-----	-----
		U_1 - L_2	284.21	75.29	-21.52	14.05	-2.66	0.90	1.00	67.76	-19.37	14.05	-2.66	Vehicle	Vehicle	516.29	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.37**	**7.28**	-----	-----
		U_2 - L_3	221.42	65.84	-22.83	11.83	-2.85	0.90	1.00	59.25	-20.55	11.83	-2.85	Vehicle	Vehicle	416.23	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.35**	**7.24**	-----	-----
		U_3 - L_4	178.30	63.43	-25.79	10.08	-3.23	0.90	1.00	57.09	-23.21	10.08	-3.23	Vehicle	Vehicle	355.48	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**4.19**	**6.99**	-----	-----
		U_4 - L_5	53.50	36.26	-21.86	5.37	-2.87	0.90	1.00	32.63	-19.67	5.37	-2.87	Vehicle	Vehicle	140.25	-----	0.00	16.85	16.8486	556.00	131.71	15.3958	1.9682	70.40	28.29	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**6.88**	**11.47**	-----	-----
		U_5 - L_6	-16.51	26.44	-21.73	2.23	-2.92	0.90	1.00	23.79	-19.56	2.23	-2.92	Vehicle	Vehicle	30.08	-63.85	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**11.20**	**18.67**	**9.49**	**15.81**
		U_6 - L_7	-133.21	4.60	-25.03	0.00	-5.36	0.90	1.00	4.14	-22.52	0.00	-5.36	Vehicle	Vehicle	-----	-221.97	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	**6.02**	**10.04**
		U_7 - L_7	208.77	41.92	-2.53	8.33	0.00	0.90	1.00	37.73	-2.28	8.33	0.00	Vehicle	Vehicle	353.15	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**6.27**	**10.46**	-----	-----
		U_8 - L_8	289.58	66.77	-1.33	10.70	0.00	0.90	1.00	60.09	-1.20	10.70	0.00	Vehicle	Vehicle	506.65	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**4.20**	**7.00**	-----	-----
		U_{10} - L_9	327.97	76.44	-2.17	12.66	0.00	0.90	1.00	68.80	-1.95	12.66	0.00	Vehicle	Vehicle	575.42	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.92**	**6.53**	-----	-----
		U_{11} - L_{10}	349.25	79.04	-11.15	12.70	0.00	0.90	1.00	71.14	-10.03	12.70	0.00	Vehicle	Vehicle	608.16	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.18**	**6.96**	-----	-----
		U_{12} - L_{11}	358.20	74.82	-11.74	13.52	0.00	0.90	1.00	67.34	-10.57	13.52	0.00	Vehicle	Vehicle	611.56	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.33**	**7.22**	-----	-----
		U_{13} - L_{12}	307.75	64.95	-23.74	12.26	-0.24	0.90	1.00	58.45	-21.36	12.26	-0.24	Vehicle	Vehicle	526.72	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.82**	**8.04**	-----	-----
		U_{14} - L_{13}	260.20	53.92	-20.11	11.72	-1.50	0.90	1.00	48.53	-18.10	11.72	-1.50	Vehicle	Vehicle	443.41	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**6.40**	**10.66**	-----	-----
		U_{15} - L_{15}	208.42	57.59	-16.43	11.04	-2.51	0.90	1.00	51.83	-14.78	11.04	-2.51	Vehicle	Vehicle	383.25	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.12**	**8.53**	-----	-----
		U_{16} - L_{16}	243.55	70.59	-13.56	11.54	-1.48	0.90	1.00	63.53	-12.21	11.54	-1.48	Vehicle	Vehicle	454.27	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.84**	**6.41**	-----	-----
		U_{17} - L_{17}	255.86	70.44	-10.46	12.23	-0.85	0.90	1.00	63.39	-9.41	12.23	-0.85	Vehicle	Vehicle	469.98	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**4.30**	**7.17**	-----	-----
		U_{18} - L_{18}	235.29	70.80	-10.74	11.35	-0.75	0.90	1.00	63.72	-9.67	11.35	-0.75	Vehicle	Vehicle	443.94	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.91**	**6.52**	-----	-----
		U_{19} - L_{19}	212.11	62.59	-9.30	11.09	0.00	0.90	1.00	56.33	-8.37	11.09	0.00	Vehicle	Vehicle	397.79	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.67**	**7.78**	-----	-----
		U_{20} - L_{20}	168.24	54.95	-10.03	9.14	0.00	0.90	1.00	49.46	-9.02	9.14	0.00	Vehicle	Vehicle	325.87	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**5.28**	**8.80**	-----	-----
		U_{21} - L_{21}	97.26	27.18	-6.75	6.66	0.00	0.90	1.00	24.46	-6.08	6.66	0.00	Vehicle	Vehicle	179.43	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.11**	**13.51**	-----	-----
		U_{21} - L_{22}	30.60	17.84	-9.15	3.66	-2.18	0.90	1.00	16.06	-8.23	3.66	-2.18	Vehicle	Vehicle	74.57	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**14.84**	**24.73**	-----	-----
		U_{23} - L_{22}	49.78	29.99	-5.64	5.11	-0.95	0.90	1.00	26.99	-5.08	5.11	-0.95	Vehicle	Vehicle	123.20	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.40**	**14.00**	-----	-----
		U_{24} - L_{23}	115.07	39.32	-6.34	8.00	-0.72	0.90	1.00	35.39	-5.70	8.00	-0.72	Vehicle	Vehicle	226.26	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.30**	**8.83**	-----	-----
		U_{25} - L_{24}	179.22	69.73	-10.68	10.10	-0.73	0.90	1.00	62.76	-9.61	10.10	-0.73	Vehicle	Vehicle	368.96	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**4.05**	**6.76**	-----	-----
		U_{26} - L_{25}	220.97	72.69	-10.25	11.89	-0.57	0.90	1.00	65.42	-9.23	11.89	-0.57	Vehicle	Vehicle	429.01	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.94**	**6.57**	-----	-----
		U_{27} - L_{26}	234.87	68.31	-18.32	11.45	-0.35	0.90	1.00	61.48	-16.49	11.45	-0.35	Vehicle	Vehicle	438.52	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.06**	**6.76**	-----	-----
		U_{28} - L_{27}	253.15	64.35	-18.31	12.25	-0.28	0.90	1.00	57.91	-16.47	12.25	-0.28	Vehicle	Vehicle	454.56	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**4.74**	**7.89**	-----	-----
		U_{29} - L_{28}	215.91	54.66	-32.19	10.20	0.00	0.90	1.00	49.19	-28.97	10.20	0.00	Vehicle	Vehicle	387.27	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.30**	**8.84**	-----	-----
		U_{30} - L_{29}	180.73	43.29	-27.23	8.90	-0.90	0.90	1.00	38.96	-24.51	8.90	-0.90	Vehicle	Vehicle	319.36	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**7.24**	**12.06**	-----	-----
		U_{31} - L_{31}	294.99	62.82	-12.97	12.90	-1.64	0.90	1.00	56.54	-11.67	12.90	-1.64	Vehicle	Vehicle	505.98	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.12**	**8.54**	-----	-----
		U_{32} - L_{32}	342.70	71.74	-11.62	13.70	-0.55	0.90	1.00	64.56	-10.45	13.70	-0.55	Vehicle	Vehicle	585.40	-----	0.00	30.63	30.6305	1010.81	131.71	17.8750	2.8427	56.59	29.95	-779.87	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.04**	**6.74**	-----	-----
		U_{33} - L_{33}	363.39	73.85	-5.90	14.16	0.00	0.90	1.00	66.47	-5.31	14.16	0.00	Vehicle	Vehicle	616.42	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1998

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Min) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Min End (k-in)
Structure 1	U_0-L_1	-129.89	-23.02	0.01	1.71	-2.34	-4.83	0.00	0.00	0.00	0.00
	L_1-L_2	-54.81	-51.14	0.28	3.04	1.46	-9.18	0.00	0.00	0.00	0.00
	L_2-L_3	-54.81	-54.81	3.59	0.28	-4.67	-4.32	0.00	0.00	0.00	0.00
	L_3-L_4	-52.27	-51.68	2.75	4.32	-5.82	-12.58	0.00	0.00	0.00	0.00
	L_4-U_5	-27.43	-50.17	3.04	2.75	-14.74	-40.29	0.00	0.00	0.00	0.00
	U_5-L_5	-1.19	-145.97	3.58	3.95	-5.85	-1.03	0.00	0.00	0.00	0.00
	L_5-L_6	34.94	-53.27	3.95	-0.23	-68.40	-41.02	0.00	0.00	0.00	0.00
	L_6-U_7	-70.13	-556.66	-5.22	20.92	-1.48	2.02	0.00	0.00	0.00	0.00
	U_7-L_7	528.73	-128.77	17.46	-5.80	0.00	0.00	0.00	0.00	0.00	0.00
	L_7-L_8	69.10	44.97	1.66	2.98	-3.53	-1.66	0.00	0.00	0.00	0.00
	L_8-U_9	101.46	-177.08	2.99	2.52	2.14	-8.67	0.00	0.00	0.00	0.00
	U_9-L_9	32.27	-160.13	2.46	2.12	-2.27	-9.09	0.00	0.00	0.00	0.00
	L_9-L_{10}	-56.63	-218.18	2.73	1.00	-1.26	-5.88	0.00	0.00	0.00	0.00
	L_{10}-L_{11}	-113.99	-94.82	1.33	0.63	-2.45	-24.25	0.00	0.00	0.00	0.00
	L_{11}-U_{12}	-287.89	-237.50	2.39	1.38	-23.81	-7.53	0.00	0.00	0.00	0.00
	U_{12}-L_{12}	-196.26	-337.79	2.33	0.16	-6.26	-7.42	0.00	0.00	0.00	0.00
	L_{12}-L_{13}	-56.29	-154.89	0.88	0.14	-1.41	-140.98	0.00	0.00	0.00	0.00
	L_{13}-L_{14}	-190.08	-29.82	0.76	-0.71	-7.45	-2.52	0.00	0.00	0.00	0.00
	L_{14}-U_{15}	-179.81	-40.24	0.69	-0.37	-7.75	0.10	0.00	0.00	0.00	0.00
	U_{15}-L_{15}	-290.19	260.74	0.52	-0.36	-9.14	15.09	0.00	0.00	0.00	0.00
	L_{15}-L_{16}	-27.02	-172.57	-0.53	1.66	-1.10	-8.36	0.00	0.00	0.00	0.00
	L_{16}-U_{17}	-25.34	-194.81	-0.31	1.46	-1.03	-8.72	0.00	0.00	0.00	0.00
	U_{17}-L_{17}	-52.13	-282.61	-0.87	2.31	-0.06	-12.61	0.00	0.00	0.00	0.00
	L_{17}-L_{18}	-139.12	-87.61	-1.49	4.89	-11.02	-3.72	0.00	0.00	0.00	0.00
	L_{18}-U_{19}	-360.73	-396.17	0.35	3.82	-7.68	-18.83	0.00	0.00	0.00	0.00
	U_{19}-L_{19}	-403.61	-561.39	2.89	3.14	-13.67	-12.39	0.00	0.00	0.00	0.00
	L_{19}-L_{20}	-349.78	-208.76	5.21	5.06	-13.49	-31.12	0.00	0.00	0.00	0.00
	L_{20}-U_{21}	-253.89	-280.84	4.01	5.58	-31.78	-12.15	0.00	0.00	0.00	0.00
	U_{21}-L_{21}	-239.50	-281.43	3.61	5.58	-32.50	-12.71	0.00	0.00	0.00	0.00
	L_{21}-L_{22}	-237.13	-39.43	5.81	7.26	-18.60	-4.06	0.00	0.00	0.00	0.00
	L_{22}-U_{23}	-150.50	-152.28	5.80	5.61	-14.71	-13.65	0.00	0.00	0.00	0.00
	L_{23}-U_{24}	-116.81	-170.72	6.17	4.93	-12.35	-2.22	0.00	0.00	0.00	0.00
	U_{24}-L_{24}	-59.53	-187.41	5.80	4.93	-12.35	-2.22	0.00	0.00	0.00	0.00
	L_{24}-L_{25}	-48.21	-31.51	4.40	4.10	-7.89	-6.03	0.00	0.00	0.00	0.00
	L_{25}-U_{26}	10.71	-137.69	4.82	3.34	-8.12	2.33	0.00	0.00	0.00	0.00
	U_{26}-L_{26}	57.19	-122.84	5.07	2.14	-8.67	3.61	0.00	0.00	0.00	0.00
	L_{26}-L_{27}	98.58	220.30	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	L_{27}-U_{28}	85.58	3.84	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	U_{28}-L_{28}	14.12	816.00	0.00	0.00	-18.99	0.00	0.00	0.00	0.00	0.00
	L_{28}-L_{29}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	L_{29}-U_{30}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	U_{30}-L_{30}	196.48	-8.75	4.10	5.53	2.41	-9.09	0.00	0.00	0.00	0.00
	L_{30}-L_{31}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	L_{31}-U_{32}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
Structure 2	U_{32}-L_{32}	-92.46	-55.91	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{32}-L_{33}	-59.53	-597.41	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{33}-U_{34}	-48.21	-31.51	4.40	4.10	-7.89	-6.03	0.00	0.00	0.00	0.00
	U_{34}-L_{34}	10.71	-137.69	4.82	3.34	-8.12	2.33	0.00	0.00	0.00	0.00
	L_{34}-L_{35}	57.19	-122.84	5.07	2.14	-8.67	3.61	0.00	0.00	0.00	0.00
	L_{35}-U_{36}	98.58	220.30	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	U_{36}-L_{36}	85.58	3.84	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	L_{36}-L_{37}	14.12	816.00	0.00	0.00	-18.99	0.00	0.00	0.00	0.00	0.00
	L_{37}-U_{38}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	L_{38}-U_{39}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	U_{39}-L_{39}	196.48	-8.75	4.10	5.53	2.41	-9.09	0.00	0.00	0.00	0.00
	L_{39}-L_{40}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	L_{40}-U_{41}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	U_{41}-L_{41}	-92.46	-55.91	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{41}-L_{42}	-59.53	-597.41	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{42}-U_{43}	-48.21	-31.51	4.40	4.10	-7.89	-6.03	0.00	0.00	0.00	0.00
	U_{43}-L_{43}	10.71	-137.69	4.82	3.34	-8.12	2.33	0.00	0.00	0.00	0.00
	L_{43}-L_{44}	57.19	-122.84	5.07	2.14	-8.67	3.61	0.00	0.00	0.00	0.00
	L_{44}-U_{45}	98.58	220.30	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	U_{45}-L_{45}	85.58	3.84	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	L_{45}-L_{46}	14.12	816.00	0.00	0.00	-18.99	0.00	0.00	0.00	0.00	0.00
	L_{46}-U_{47}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	L_{47}-U_{48}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	U_{48}-L_{48}	196.48	-8.75	4.10	5.53	2.41	-9.09	0.00	0.00	0.00	0.00
	L_{48}-L_{49}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	L_{49}-U_{50}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	U_{50}-L_{50}	-92.46	-55.91	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{50}-L_{51}	-59.53	-597.41	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{51}-U_{52}	-48.21	-31.51	4.40	4.10	-7.89	-6.03	0.00	0.00	0.00	0.00
	U_{52}-L_{52}	10.71	-137.69	4.82	3.34	-8.12	2.33	0.00	0.00	0.00	0.00
	L_{52}-L_{53}	57.19	-122.84	5.07	2.14	-8.67	3.61	0.00	0.00	0.00	0.00
	L_{53}-U_{54}	98.58	220.30	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	U_{54}-L_{54}	85.58	3.84	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	L_{54}-L_{55}	14.12	816.00	0.00	0.00	-18.99	0.00	0.00	0.00	0.00	0.00
	L_{55}-U_{56}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	L_{56}-U_{57}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	U_{57}-L_{57}	196.48	-8.75	4.10	5.53	2.41	-9.09	0.00	0.00	0.00	0.00
	L_{57}-L_{58}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	L_{58}-U_{59}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	U_{59}-L_{59}	-92.46	-55.91	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{59}-L_{60}	-59.53	-597.41	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{60}-U_{61}	-48.21	-31.51	4.40	4.10	-7.89	-6.03	0.00	0.00	0.00	0.00
	U_{61}-L_{61}	10.71	-137.69	4.82	3.34	-8.12	2.33	0.00	0.00	0.00	0.00
	L_{61}-L_{62}	57.19	-122.84	5.07	2.14	-8.67	3.61	0.00	0.00	0.00	0.00
	L_{62}-U_{63}	98.58	220.30	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	U_{63}-L_{63}	85.58	3.84	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	L_{63}-L_{64}	14.12	816.00	0.00	0.00	-18.99	0.00	0.00	0.00	0.00	0.00
	L_{64}-U_{65}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	L_{65}-U_{66}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	U_{66}-L_{66}	196.48	-8.75	4.10	5.53	2.41	-9.09	0.00	0.00	0.00	0.00
	L_{66}-L_{67}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	L_{67}-U_{68}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	U_{68}-L_{68}	-92.46	-55.91	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{68}-L_{69}	-59.53	-597.41	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{69}-U_{70}	-48.21	-31.51	4.40	4.10	-7.89	-6.03	0.00	0.00	0.00	0.00
	U_{70}-L_{70}	10.71	-137.69	4.82	3.34	-8.12	2.33	0.00	0.00	0.00	0.00
	L_{70}-L_{71}	57.19	-122.84	5.07	2.14	-8.67	3.61	0.00	0.00	0.00	0.00
	L_{71}-U_{72}	98.58	220.30	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	U_{72}-L_{72}	85.58	3.84	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	L_{72}-L_{73}	14.12	816.00	0.00	0.00	-18.99	0.00	0.00	0.00	0.00	0.00
	L_{73}-U_{74}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	L_{74}-U_{75}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	U_{75}-L_{75}	196.48	-8.75	4.10	5.53	2.41	-9.09	0.00	0.00	0.00	0.00
	L_{75}-L_{76}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	L_{76}-U_{77}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	U_{77}-L_{77}	-92.46	-55.91	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{77}-L_{78}	-59.53	-597.41	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{78}-U_{79}	-48.21	-31.51	4.40	4.10	-7.89	-6.03	0.00	0.00	0.00	0.00
	U_{79}-L_{79}	10.71	-137.69	4.82	3.34	-8.12	2.33	0.00	0.00	0.00	0.00
	L_{79}-L_{80}	57.19	-122.84	5.07	2.14	-8.67	3.61	0.00	0.00	0.00	0.00
	L_{80}-U_{81}	98.58	220.30	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	U_{81}-L_{81}	85.58	3.84	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	L_{81}-L_{82}	14.12	816.00	0.00	0.00	-18.99	0.00	0.00	0.00	0.00	0.00
	L_{82}-U_{83}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	L_{83}-U_{84}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	U_{84}-L_{84}	196.48	-8.75	4.10	5.53	2.41	-9.09	0.00	0.00	0.00	0.00
	L_{84}-L_{85}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	L_{85}-U_{86}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	U_{86}-L_{86}	-92.46	-55.91	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{86}-L_{87}	-59.53	-597.41	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{87}-U_{88}	-48.21	-31.51	4.40	4.10	-7.89	-6.03	0.00	0.00	0.00	0.00
	U_{88}-L_{88}	10.71	-137.69	4.82	3.34	-8.12	2.33	0.00	0.00	0.00	0.00
	L_{88}-L_{89}	57.19	-122.84	5.07	2.14	-8.67	3.61	0.00	0.00	0.00	0.00
	L_{89}-U_{90}	98.58	220.30	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	U_{90}-L_{90}	85.58	3.84	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	L_{90}-L_{91}	14.12	816.00	0.00	0.00	-18.99	0.00	0.00	0.00	0.00	0.00
	L_{91}-U_{92}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	L_{92}-U_{93}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	U_{93}-L_{93}	196.48	-8.75	4.10	5.53	2.41	-9.09	0.00	0.00	0.00	0.00
	L_{93}-L_{94}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	L_{94}-U_{95}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	U_{95}-L_{95}	-92.46	-55.91	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{95}-L_{96}	-59.53	-597.41	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{96}-U_{97}	-48.21	-31.51	4.40	4.10	-7.89	-6.03	0.00	0.00	0.00	0.00
	U_{97}-L_{97}	10.71	-137.69	4.82	3.34	-8.12	2.33	0.00	0.00	0.00	0.00
	L_{97}-L_{98}	57.19	-122.84	5.07	2.14	-8.67	3.61	0.00	0.00	0.00	0.00
	L_{98}-U_{99}	98.58	220.30	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	U_{99}-L_{99}	85.58	3.84	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	L_{99}-L_{100}	14.12	816.00	0.00	0.00	-18.99	0.00	0.00	0.00	0.00	0.00
	L_{100}-U_{101}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	L_{101}-U_{102}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	U_{102}-L_{102}	196.48	-8.75	4.10	5.53	2.41	-9.09	0.00	0.00	0.00	0.00
	L_{102}-L_{103}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	L_{103}-U_{104}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	U_{104}-L_{104}	-92.46	-55.91	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{104}-L_{105}	-59.53	-597.41	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{105}-U_{106}	-48.21	-31.51	4.40	4.10	-7.89	-6.03	0.00	0.00	0.00	0.00
	U_{106}-L_{106}	10.71	-137.69	4.82	3.34	-8.12	2.33	0.00	0.00	0.00	0.00
	L_{106}-L_{107}	57.19	-122.84	5.07	2.14	-8.67	3.61	0.00	0.00	0.00	0.00
	L_{107}-U_{108}	98.58	220.30	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	U_{108}-L_{108}	85.58	3.84	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	L_{108}-L_{109}	14.12	816.00	0.00	0.00	-18.99	0.00	0.00	0.00	0.00	0.00
	L_{109}-U_{110}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	L_{110}-U_{111}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	U_{111}-L_{111}	196.48	-8.75	4.10	5.53	2.41	-9.09	0.00	0.00	0.00	0.00
	L_{111}-L_{112}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	L_{112}-U_{113}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	U_{113}-L_{113}	-92.46	-55.91	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{113}-L_{114}	-59.53	-597.41	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{114}-U_{115}	-48.21	-31.51	4.40	4.10	-7.89	-6.03	0.00	0.00	0.00	0.00
	U_{115}-L_{115}	10.71	-137.69	4.82	3.34	-8.12	2.33	0.00	0.00	0.00	0.00
	L_{115}-L_{116}	57.19	-122.84	5.07	2.14	-8.67	3.61	0.00	0.00	0.00	0.00
	L_{116}-U_{117}	98.58	220.30	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	U_{117}-L_{117}	85.58	3.84	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	L_{117}-L_{118}	14.12	816.00	0.00	0.00	-18.99	0.00	0.00	0.00	0.00	0.00
	L_{118}-U_{119}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	L_{119}-U_{120}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	U_{120}-L_{120}	196.48	-8.75	4.10	5.53	2.41	-9.09	0.00	0.00	0.00	0.00
	L_{120}-L_{121}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	L_{121}-U_{122}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	U_{122}-L_{122}	-92.46	-55.91	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{122}-L_{123}	-59.53	-597.41	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{123}-U_{124}	-48.21	-31.51	4.40	4.10	-7.89	-6.03	0.00	0.00	0.00	0.00
	U_{124}-L_{124}	10.71	-137.69	4.82	3.34	-8.12	2.33	0.00	0.00	0.00	0.00
	L_{124}-L_{125}	57.19	-122.84	5.07	2.14	-8.67	3.61	0.00	0.00	0.00	0.00
	L_{125}-U_{126}	98.58	220.30	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	U_{126}-L_{126}	85.58	3.84	4.36	1.24	-2.05	-0.09	0.00	0.00	0.00	0.00
	L_{126}-L_{127}	14.12	816.00	0.00	0.00	-18.99	0.00	0.00	0.00	0.00	0.00
	L_{127}-U_{128}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	L_{128}-U_{129}	271.35	25.12	2.61	4.33	3.35	-6.07	0.00	0.00	0.00	0.00
	U_{129}-L_{129}	196.48	-8.75	4.10	5.53	2.41	-9.09	0.00	0.00	0.00	0.00
	L_{129}-L_{130}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	L_{130}-U_{131}	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	0.00	0.00	0.00
	U_{131}-L_{131}	-92.46	-55.91	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{131}-L_{132}	-59.53	-597.41	4.47	5.50	-8.93	-23.92	0.00	0.00	0.00	0.00
	L_{132}-U_{133}	-48.21	-31.51	4.40	4.10	-7.89	-6.03	0.00	0.00	0.00	0.00
	U_{133}-L_{133}	10.71	-137.69	4.82	3.34	-8.12	2.33	0.00	0.00	0.00	0.00

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: **HS20 Lane**
Location: **Ax Bolt**

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.60

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Does Lumpsteel vs Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Max) End (k-ft)	Lane Reduction & Impact Live Load Max Start (k-ft)	Lane Reduction & Impact Live Load Max End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)	Max. Pos. Mom. Start k-in	Max. Pos. Mom. End k-in	Max. Neg. Mom. Start k-in	Max. Neg. Mom. End k-in
Structure 1	L_0-L_1	-44.17	-99.07	0.15	-0.12	2.27	-2.33					0.00	0.00	-60.84	-131.56
	L_1-L_2	-131.02	-112.64	-0.12	-6.78	-0.39	2.44					0.00	0.00	167.54	-305.11
	L_2-L_3	-52.05	-79.06	-4.90	-0.54	1.28	2.83					0.00	0.00	-197.83	-256.39
	L_3-L_4	18.36	16.12	-4.81	-12.11	1.40	5.05					0.00	0.00	-51.99	-130.80
	L_4-L_5	-68.34	-212.03	-12.93	-1.51	-3.94	3.32					0.00	0.00	-139.05	-51.28
	L_5-L_6	8.36	-229.14	-2.13	-1.65	3.05	3.97					0.00	0.00	-38.97	-259.30
	L_6-L_7	61.83	-211.52	-1.63	0.84	-1.87	-1.46					0.00	0.00	117.79	-182.31
	L_7-L_8	1.61	409.47	0.00	0.00	-0.57	18.68					0.00	0.00	0.00	-6.19
	L_8-L_9	439.88	-25.12	0.00	0.00	16.95	-0.54					0.00	0.00	0.00	183.03
	L_9-L_{10}	204.03	-117.02	0.00	0.00	1.98	-0.50					0.00	0.00	263.24	-152.13
	L_{10}-L_{11}	168.12	-117.13	0.17	-1.34	6.63	-2.69					0.00	0.00	1.84	-14.47
	L_{11}-L_{12}	239.72	-27.81	1.81	-6.45	2.07	2.28					0.00	0.00	19.53	-9.62
	L_{12}-L_{13}	-19.73	-128.50	-1.54	-3.64	2.64	1.31					0.00	0.00	-16.68	-39.33
	L_{13}-L_{14}	175.78	-425.21	1.28	-17.80	2.05	1.79					0.00	0.00	13.82	-192.22
	L_{14}-L_{15}	-409.28	-20.70	-0.13	-1.17	1.34	0.27					0.00	0.00	-213.96	-14.56
	L_{15}-L_{16}	-209.39	-318.68	-7.38	-7.10	0.69	6.65					0.00	0.00	-79.74	-76.72
	L_{16}-L_{17}	374.86	83.54	-8.99	-0.85	0.74	4.15					0.00	0.00	-92.82	-9.14
	L_{17}-L_{18}	-171.07	19.86	-1.48	-6.82	6.28	-0.03					0.00	0.00	-15.99	-8.82
	L_{18}-L_{19}	-208.33	253.78	-2.77	-0.69	3.85	2.67					0.00	0.00	-29.87	21.53
	L_{19}-L_{20}	-84.78	1.02	1.85	-3.41	3.42	3.42					0.00	0.00	-20.01	11.53
	L_{20}-L_{21}	10.35	-213.29	0.69	-1.92	2.44	-3.31					0.00	0.00	7.46	-29.70
	L_{21}-L_{22}	56.14	-247.73	0.00	-0.54	1.45	-1.41					0.00	0.00	27.70	-82.84
	L_{22}-L_{23}	-0.36	-194.33	1.31	-7.54	-0.66	1.42					0.00	0.00	14.09	-81.44
	L_{23}-L_{24}	-29.77	-97.21	0.00	-0.17	-0.31	0.42					0.00	0.00	-8.54	-30.17
	L_{24}-L_{25}	-287.80	-299.08	-5.41	-11.05	-0.15	2.41					0.00	0.00	-68.42	-119.37
	L_{25}-L_{26}	-219.21	41.90	0.00	-0.49	0.00	0.00					0.00	0.00	-84.06	-11.25
	L_{26}-L_{27}	-467.54	-273.29	-16.72	-22.97	3.53	5.09					0.00	0.00	-180.05	-248.02
	L_{27}-L_{28}	-310.55	-45.89	-22.09	-8.29	4.14	7.65					0.00	0.00	-238.62	-89.56
	L_{28}-L_{29}	-409.28	-20.70	-17.35	-4.27	3.25	6.13					0.00	0.00	-272.23	-23.06
	L_{29}-L_{30}	-261.97	188.33	-12.19	-1.39	3.72	7.64					0.00	0.00	-131.66	-14.96
	L_{30}-L_{31}	-374.86	83.54	-8.99	-0.85	0.74	4.15					0.00	0.00	-92.82	-9.14
	L_{31}-L_{32}	-131.48	389.15	-2.79	-1.34	-6.94	13.19					0.00	0.00	-30.11	-14.43
	L_{32}-L_{33}	-164.35	-140.48	-3.43	2.06	-3.15	-7.75					0.00	0.00	-37.08	22.28
	L_{33}-L_{34}	-30.47	99.41	2.36	0.96	37.39	-0.49					0.00	0.00	-347.75	0.00
	L_{34}-L_{35}	912.03	-326.86	0.00	0.00	37.44	-13.46					0.00	0.00	0.00	404.40
	L_{35}-L_{36}	289.13	41.90	0.00	0.00	0.00	0.00					0.00	0.00	0.00	-105.67
	L_{36}-L_{37}	515.59	-35.24	0.45	-0.13	16.86	-3.23					0.00	0.00	4.84	-11.10
	L_{37}-L_{38}	258.56	-18.58	0.00	-0.07	8.37	-1.60					0.00	0.00	2.39	-5.51
	L_{38}-L_{39}	-252.02	-25.09	-0.67	-2.08	5.18	3.76					0.00	0.00	-7.26	-22.50
	L_{39}-L_{40}	230.55	-46.37	0.28	-7.38	3.12	5.18					0.00	0.00	3.07	-79.71
	L_{40}-L_{41}	115.28	-23.18	0.14	-3.69	1.56	2.59					0.00	0.00	1.53	-39.85
	L_{41}-L_{42}	41.53	-186.96	-4.60	-23.86	3.37	6.65					0.00	0.00	-49.71	-257.68
	L_{42}-L_{43}	20.77	-93.48	-2.30	-11.93	1.68	3.32					0.00	0.00	-24.85	-128.84
	L_{43}-L_{44}	-106.55	-10.73	-8.62	-5.28	3.75	4.74					0.00	0.00	-85.26	-58.98
	L_{44}-L_{45}	-53.28	-5.36	-4.44	-2.64	1.87	2.37					0.00	0.00	-42.63	-29.49
	L_{45}-L_{46}	-65.47	-173.47	-2.50	-1.69	2.27	3.01					0.00	0.00	-27.09	-18.23
	L_{46}-L_{47}	-30.98	-151.24	-3.82	-1.53	-7.31	8.14					0.00	0.00	-41.25	-16.52
	L_{47}-L_{48}	-20.67	-313.11	-7.23	-2.30	-11.00	12.21					0.00	0.00	-103.65	-39.24
	L_{48}-L_{49}	-19.38	-193.41	0.00	0.00	-1.80	-7.91					0.00	0.00	-25.20	-231.44
	L_{49}-L_{50}	23.72	-27.81	1.81	-6.45	2.07	2.28					0.00	0.00	19.53	-9.62
	L_{50}-L_{51}	140.88	-268.17	3.99	-6.77	38.12	-13.28					0.00	0.00	43.06	-8.32
	L_{51}-L_{52}	-140.43	-76.07	-1.16	-4.02	-9.06	-1.23					0.00	0.00	12.55	-43.36
	L_{52}-L_{53}	-277.36	-114.86	-3.43	-2.85	-12.25	1.65					0.00	0.00	-23.73	-69.16
	L_{53}-L_{54}	147.94	-145.21	0.43	-5.44	2.81	5.29					0.00	0.00	4.67	-58.71
	L_{54}-L_{55}	73.97	-72.61	0.21	-2.72	1.40	2.64					0.00	0.00	2.33	-29.35
	L_{55}-L_{56}	95.37	-212.64	0.06	-8.62	4.16	4.31					0.00	0.00	0.68	-103.33
	L_{56}-L_{57}	-29.16	-114.86	-3.43	-2.85	-12.25	1.65					0.00	0.00	-23.73	-69.16
	L_{57}-L_{58}	-182.93	-415.63	-20.93	-18.43	5.84	3.31					0.00	0.00	-226.09	-199.09
	L_{58}-L_{59}	-370.36	-165.17	-17.20	-10.23	3.63	0.81					0.00	0.00	-185.77	-110.51
	L_{59}-L_{60}	-224.72	-218.52	-10.32	-6.14	2.18	0.49					0.00	0.00	-111.46	-66.31
	L_{60}-L_{61}	-204.19	-21.36	-11.25	-0.66	1.61	-0.38					0.00	0.00	-121.51	-7.13
	L_{61}-L_{62}	-227.31	-39.09	-11.77	-1.04	1.94	-0.52					0.00	0.00	-87.77	-11.25
	L_{62}-L_{63}	-227.31	-39.09	-4.01	-1.04	1.11	-0.52					0.00	0.00	-43.33	-11.25
	L_{63}-L_{64}	-84.78	1.02	-3.41	-3.41	3.42	3.42					0.00	0.00	-20.01	11.53
	L_{64}-L_{65}	43.83	-117.87	0.29	3.41	3.91	-5.21					0.00	0.00	3.10	-15.24
	L_{65}-L_{66}	-152.35	-177.82	0.42	-2.32	-0.10	0.34					0.00	0.00	4.54	-27.18
	L_{66}-L_{67}	55.48	-320.54	0.40	-6.73	-0.13	0.63					0.00	0.00	4.33	-72.64
	L_{67}-L_{68}	55.48	-320.54	0.40	-6.73	-0.13	0.63					0.00	0.00	4.33	-72.64
	L_{68}-L_{69}	-64.07	-371.05	-3.06	-20.34	0.01	1.97					0.00	0.00	-33.08	-219.69
	L_{69}-L_{70}	-370.76	82.43	-18.28	-1.16	1.33	2.22					0.00	0.00	-197.42	-1.74
	L_{70}-L_{71}	-200.77	-185.87	-7.98	-1.84	1.63	2.57					0.00	0.00	-86.21	-19.90
	L_{71}-L_{72}	-131.78	166.76	0.00	0.00	-1.98	3.11					0.00	0.00	0.00	-21.42
	L_{72}-L_{73}	361.88	-172.92	0.00	0.00	18.69	-0.83					0.00	0.00	0.00	200.82
	L_{73}-L_{74}	61.92	-21.66	0.80	-0.82	0.36	0.02					0.00	0.00	8.64	-61.81
	L_{74}-L_{75}	189.90	5.62	1.92	-11.71	3.94	4.31					0.00	0.00	20.75	-126.46
	L_{75}-L_{76}	61.92	-21.66	0.80	-0.82	0.36	0.02					0.00	0.00	8.64	-61.81
	L_{76}-L_{77}	-38.98	-56.51	-6.97	-6.36	3.12	1.50					0.00	0.00	-75.25	-48.69
	L_{77}-L_{78}	-66.62	-75.78	-9.30	-8.16	4.00	1.92					0.00	0.00	-98.17	-62.58
	L_{78}-L_{79}	-66.62	-75.78	-9.30	-8.16	4.00	1.92					0.00	0.00	-98.17	-62.58
	L_{79}-L_{80}	-38.98	-56.51	-6.97	-6.36	3.12	1.50					0.00	0.00	-75.25	-48.69
	L_{80}-L_{81}	-131.78	166.76	0.00	0.00	-1.98	3.11					0.00	0.00	0.00	-21.42
	L_{81}-L_{82}	43.83	-117.87	0.29	3.41	3.91	-5.21					0.00	0.00	3.10	-15.24
	L_{82}-L_{83}	-152.35	-177.82	0.42	-2.32	-0.10	0.34					0.00	0.00	4.54	-27.18
	L_{83}-L_{84}	55.48	-320.54	0.40	-6.73	-0.13	0.63					0.00	0.00	4.33	-72.64
	L_{84}-L_{85}	55.48	-320.54	0.40	-6.73	-0.13	0.63					0.00	0.00	4.33	-72.64
	L_{85}-L_{86}	-64.07	-371.05	-3.06	-20.34	0.01	1.97					0.00	0.00	-33.08	-219.69
	L_{86}-L_{87}	-370.76	82.43	-18.28	-1.16	1.33	2.22					0.00	0.00	-197.42	-1.74
	L_{87}-L_{88}	-200.77	-185.87	-7.98	-1.84	1.63	2.57					0.00	0.00	-86.21	-19.90
	L_{88}-L_{89}	-131.78	166.76	0.00	0.00	-1.98	3.11					0.00	0.00	0.00	-21.42
	L_{89}-L_{90}	361.88	-172.92	0.00	0.00	18.69	-0.83					0.00	0.00	0.00	200.82
	L_{90}-L_{91}	61.92	-21.66	0.80	-0.82	0.36	0.02					0.00	0.00	8.64	-61.81
	L_{91}-L_{92}	189.90	5.62	1.92	-11.71	3.94	4.31					0.00	0.00	20.75	-126.46
	L_{92}-L_{93}	61.92	-21.66	0.80	-0.82	0.36	0.02					0.00	0.00	8.64	-61.81
	L_{93}-L_{94}	-38.98	-56.51	-6.97	-6.36	3.12	1.50					0.00	0.00	-75.25	-48.69
	L_{94}-L_{95}	-66.62	-75.78	-9.30	-8.16	4.00	1.92					0.00	0.00	-98.17	-62.58

YY Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Max) End (k-ft)	Lane Reduction & Impact Live Load Max Start (k-ft)	Lane Reduction & Impact Live Load Max End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)	Max. Pos. Mom. Start k-in	Max. Pos. Mom. End k-in	Max. Neg. Mom. Start k-in	Max. Neg. Mom. End k-in
Structure 2	L_0-L_1	-0.44	-0.99	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_1-L_2	-1.31	-1.12	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_2-L_3	-0.52	-0.79	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_3-L_4	0.18	0.16	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_4-L_5	-0.68	-2.12	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_5-L_6	0.08	-2.29	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_6-L_7	0.62	-2.12	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_7-L_8	0.02	4.09	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_8-L_9	4.40	-0.25	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_9-L_{10}	2.04	-1.17	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{10}-L_{11}	1.68	-1.17	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{11}-L_{12}	2.40	-0.28	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{12}-L_{13}	-0.20	-1.28	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{13}-L_{14}	1.76	-4.25	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{14}-L_{15}	-4.10	-0.21	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{15}-L_{16}	-2.09	-3.19	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{16}-L_{17}	3.75	-0.85	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{17}-L_{18}	-1.71	-0.07	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{18}-L_{19}	-2.08	2.54	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{19}-L_{20}	-0.85	0.01	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{20}-L_{21}	0.10	-2.13	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{21}-L_{22}	0.56	-2.47	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{22}-L_{23}	-0.04	-1.94	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{23}-L_{24}	-0.30	-0.97	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{24}-L_{25}	-2.88	-2.99	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{25}-L_{26}	-2.19	0.42	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{26}-L_{27}	-4.68	-2.73	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{27}-L_{28}	-3.11	-0.46	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{28}-L_{29}	-4.09	-0.21	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{29}-L_{30}	-2.62	1.88	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{30}-L_{31}	-3.74	0.84	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{31}-L_{32}	-1.32	3.89	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{32}-L_{33}	-1.64	-1.40	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{33}-L_{34}	-0.30	0.99	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{34}-L_{35}	9.12	-3.27	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{35}-L_{36}	2.89	0.42	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{36}-L_{37}	5.16	-0.35	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{37}-L_{38}	2.59	-0.19	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{38}-L_{39}	-2.52	-0.25	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{39}-L_{40}	2.31	-0.46	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{40}-L_{41}	1.15	-0.23	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{41}-L_{42}	0.42	-1.87	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{42}-L_{43}	-0.25	-0.93	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{43}-L_{44}	-1.07	-0.11	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{44}-L_{45}	-0.53	-0.05	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{45}-L_{46}	-0.65	-1.73	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{46}-L_{47}	-0.30	-1.51	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{47}-L_{48}	-1.03	-3.07	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{48}-L_{49}	-0.19	-1.93	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{49}-L_{50}	0.24	-0.27	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{50}-L_{51}	0.43	-0.77	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{51}-L_{52}	0.13	-0.69	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{52}-L_{53}	-0.23	-1.14	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{53}-L_{54}	1.40	-0.58	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{54}-L_{55}	0.70	-0.73	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{55}-L_{56}	0.95	-2.13	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{56}-L_{57}	-0.29	-1.15	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{57}-L_{58}	-1.83	-2.00	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{58}-L_{59}	-3.71	-1.10	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{59}-L_{60}	-2.25	-2.19	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{60}-L_{61}	-2.04	-0.21	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{61}-L_{62}	-2.27	-0.39	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{62}-L_{63}	-2.27	-0.39	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{63}-L_{64}	-0.85	0.01	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{64}-L_{65}	0.44	-1.18	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{65}-L_{66}	-1.52	-1.78	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{66}-L_{67}	0.55	-3.21	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{67}-L_{68}	0.55	-3.21	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{68}-L_{69}	-0.64	-3.71	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{69}-L_{70}	-3.71	-1.84	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{70}-L_{71}	-2.01	-1.99	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{71}-L_{72}	-1.32	2.14	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{72}-L_{73}	3.62	-1.73	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{73}-L_{74}	0.62	-0.22	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{74}-L_{75}	1.90	0.06	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{75}-L_{76}	0.62	-0.22	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{76}-L_{77}	-0.39	-0.56	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{77}-L_{78}	-0.66	-0.76	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{78}-L_{79}	-0.66	-0.76	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{79}-L_{80}	-0.39	-0.56	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{80}-L_{81}	-1.32	2.14	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{81}-L_{82}	0.44	-1.18	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
	L_{82}-L_{83}	-1.

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

Maximum Axial with Moment Interaction Check

M_z Information | M_y Information

| Location | Member | ZZ Axis Moments from STAAD: Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) Start (k-in) | Pedestrian Load (Min) Start (k-in) | Lane Reduction & Impact Live Load Max Start (k-in) | Lane Reduction & Impact Live Load Max End (k-in) | Impact Pedestrian Load Max Start (k-in) | Impact Pedestrian Load Max End (k-in) | Max. Neg. Mom. Start (k-in) | Max. Neg. Mom. End (k-in) | S_{top} (in^3) | S_{bot} (in^3) | Z_z (in^3) | J (in^4) | I_{yy} (in^4) | Shape Factor f | M_p (k-in) | Formula 1.8 Term * F_y/S_xx | M_z (k-in) | YY Axis Moments from STAAD: Equivalent Mom. Factor a | Equivalent Mom. Factor $C_{b(x)}$ | $C_{b(min)}$ | Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) Start (k-in) | Pedestrian Load (Min) Start (k-in) | Lane Reduction & Impact Live Load Max Start (k-in) | Lane Reduction & Impact Live Load Max End (k-in) | Impact Pedestrian Load Max Start (k-in) | Impact Pedestrian Load Max End (k-in) | Max. Neg. Mom. Start (k-in) | Max. Neg. Mom. End (k-in) | S_{top} (in^3) | S_{bot} (in^3) | S_{xx} (in^3) | Z_y (in^3) | I_{zz} (in^4) | Shape Factor f | M_p (k-in) | F_{crit} (ksi) | Formula 1.8 Term * F_y/S_xx | M_y (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor $C_{b(x)}$ | $C_{b(min)}$ | Yield: Axial (k) | Yield: Moment Positive | Yield: Total | Pass | Tension: Axial (k) | Fracture: Moment | Fracture: Total | Pass | Buckle: Axial (k) | Buckle: Moment | Buckle: Total | Pass | Compression: Axial (k) | Yield: Moment | Yield: Total | Pass |
|---|---|---|---

Axial - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	U_0-L_1	-23.44	-7.53	-1.15	0.76	0.52	-0.25	0.00	0.00	0.00	0.00
	U_1-L_1	-3.41	-8.42	-0.96	0.22	0.40	-0.15	0.00	0.00	0.00	0.00
	U_1-L_2	-10.91	-6.72	-1.01	0.55	0.55	-0.17	0.00	0.00	0.00	0.00
	U_2-L_2	7.93	-13.37	-0.82	-0.97	0.01	-0.41	0.00	0.00	0.00	0.00
	U_2-L_3	-14.61	18.92	-1.27	-1.03	0.33	0.00	0.00	0.00	0.00	0.00
	U_3-L_3	-37.44	76.90	-2.12	3.24	0.00	0.00	0.00	0.00	0.00	0.00
	U_3-L_4	21.19	21.19	-2.62	-2.62	0.00	0.00	0.00	0.00	0.00	0.00
	U_4-L_4	-8.75	101.59	-1.60	3.39	0.34	0.17	0.00	0.00	0.00	0.00
	U_4-L_5	-5.11	118.70	0.46	3.63	0.37	-0.15	0.00	0.00	0.00	0.00
	U_5-L_5	-77.69	73.54	-2.26	2.97	0.34	-0.10	0.00	0.00	0.00	0.00
	U_5-L_6	-43.88	73.22	-1.65	2.42	0.26	0.07	0.00	0.00	0.00	0.00
	U_6-L_6	-75.22	75.22	-2.28	-2.28	-0.65	-0.65	0.00	0.00	0.00	0.00
	U_6-L_7	-65.20	48.77	-2.26	2.10	0.12	0.04	0.00	0.00	0.00	0.00
	U_7-L_7	-24.90	8.63	-1.44	0.36	0.00	0.00	0.00	0.00	0.00	0.00
	U_7-L_8	-0.81	-22.01	-0.03	-1.58	0.00	-0.10	0.00	0.00	0.00	0.00
	U_8-L_8	-25.30	9.99	-1.47	1.01	0.37	-0.33	0.00	0.00	0.00	0.00
	U_8-L_9	-37.01	20.01	-2.38	1.46	0.30	-0.36	0.00	0.00	0.00	0.00
	U_9-L_9	-101.94	74.52	-3.64	3.15	0.50	-0.50	0.00	0.00	0.00	0.00
	U_9-L_{10}	-115.87	80.00	-4.18	3.23	0.40	-0.42	0.00	0.00	0.00	0.00
	U_{10}-L_{10}	-75.88	78.94	-1.40	2.46	0.10	-0.25	0.00	0.00	0.00	0.00
	U_{10}-L_{11}	-109.41	98.91	-4.00	3.73	0.67	-0.68	0.00	0.00	0.00	0.00
	U_{11}-L_{11}	-99.79	75.74	-3.75	2.71	0.71	-0.71	0.00	0.00	0.00	0.00
	U_{11}-L_{12}	-90.87	71.82	-3.83	3.06	0.93	-0.79	0.00	0.00	0.00	0.00
	U_{12}-L_{12}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{12}-L_{13}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{13}-L_{13}	-1.38	-11.28	-1.30	0.51	0.00	-0.01	0.00	0.00	0.00	0.00
	U_{13}-L_{14}	6.85	-23.87	-1.04	-0.29	0.19	-0.67	0.00	0.00	0.00	0.00
	U_{14}-L_{14}	-44.41	35.31	-2.11	0.30	0.00	0.00	0.00	0.00	0.00	0.00
	U_{14}-L_{15}	-96.57	69.69	-3.96	2.85	0.00	0.00	0.00	0.00	0.00	0.00
	U_{15}-L_{15}	-85.40	67.30	-3.98	2.19	0.00	0.00	0.00	0.00	0.00	0.00
	U_{15}-L_{16}	-37.01	20.01	-2.38	1.46	0.30	-0.36	0.00	0.00	0.00	0.00
	U_{16}-L_{16}	-109.84	116.34	-4.20	4.38	0.47	0.11	0.00	0.00	0.00	0.00
	U_{16}-L_{17}	-141.98	130.02	-5.79	5.00	0.99	-0.56	0.00	0.00	0.00	0.00
	U_{17}-L_{17}	-82.78	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{17}-L_{18}	-11.96	79.20	-1.21	3.65	0.95	-0.82	0.00	0.00	0.00	0.00
	U_{18}-L_{18}	-77.27	73.84	-4.22	4.09	-10.83	0.00	0.00	0.00	0.00	0.00
	U_{18}-L_{19}	-66.19	89.97	-4.28	5.00	0.94	-0.72	0.00	0.00	0.00	0.00
	U_{19}-L_{19}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{19}-L_{20}	-56.07	72.69	-3.19	2.69	0.77	-0.26	0.00	0.00	0.00	0.00
	U_{20}-L_{20}	-31.84	37.59	-2.46	1.85	0.46	-0.12	0.00	0.00	0.00	0.00
	U_{20}-L_{21}	-29.01	29.01	-2.48	2.48	0.72	0.72	0.00	0.00	0.00	0.00
	U_{21}-L_{21}	-10.03	3.77	-1.38	-0.01	0.19	0.04	0.00	0.00	0.00	0.00
	U_{21}-L_{22}	8.78	2.44	-1.07	-0.16	0.16	-0.16	0.00	0.00	0.00	0.00
	U_{22}-L_{22}	-19.43	19.57	-1.56	1.10	-0.02	-0.12	0.00	0.00	0.00	0.00
	U_{22}-L_{23}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{23}-L_{23}	-46.51	58.29	-3.60	3.03	0.76	0.13	0.00	0.00	0.00	0.00
	U_{23}-L_{24}	-54.32	68.37	-4.38	4.23	0.65	-0.17	0.00	0.00	0.00	0.00
	U_{24}-L_{24}	-29.01	29.01	-2.48	2.48	0.72	0.72	0.00	0.00	0.00	0.00
	U_{24}-L_{25}	-69.49	72.12	-5.25	4.92	0.75	-0.64	0.00	0.00	0.00	0.00
	U_{25}-L_{25}	-72.27	72.27	-4.22	4.22	-10.83	0.00	0.00	0.00	0.00	0.00
	U_{25}-L_{26}	-35.84	53.55	-1.53	4.46	0.99	-0.78	0.00	0.00	0.00	0.00
	U_{26}-L_{26}	-76.56	76.56	-4.46	4.46	-10.83	0.00	0.00	0.00	0.00	0.00
	U_{26}-L_{27}	-76.56	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{27}-L_{27}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{27}-L_{28}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{28}-L_{28}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{28}-L_{29}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{29}-L_{29}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{29}-L_{30}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{30}-L_{30}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{30}-L_{31}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{31}-L_{31}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{31}-L_{32}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{32}-L_{32}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{32}-L_{33}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{33}-L_{33}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{33}-L_{34}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{34}-L_{34}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{34}-L_{35}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{35}-L_{35}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{35}-L_{36}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{36}-L_{36}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{36}-L_{37}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{37}-L_{37}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{37}-L_{38}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{38}-L_{38}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{38}-L_{39}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{39}-L_{39}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{39}-L_{40}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{40}-L_{40}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{40}-L_{41}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{41}-L_{41}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{41}-L_{42}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{42}-L_{42}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{42}-L_{43}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{43}-L_{43}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{43}-L_{44}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{44}-L_{44}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{44}-L_{45}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{45}-L_{45}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{45}-L_{46}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{46}-L_{46}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{46}-L_{47}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{47}-L_{47}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{47}-L_{48}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{48}-L_{48}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{48}-L_{49}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{49}-L_{49}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{49}-L_{50}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{50}-L_{50}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{50}-L_{51}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{51}-L_{51}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{51}-L_{52}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{52}-L_{52}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{52}-L_{53}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{53}-L_{53}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{53}-L_{54}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{54}-L_{54}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{54}-L_{55}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{55}-L_{55}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{55}-L_{56}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{56}-L_{56}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{56}-L_{57}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{57}-L_{57}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{57}-L_{58}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{58}-L_{58}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{58}-L_{59}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{59}-L_{59}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{59}-L_{60}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{60}-L_{60}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{60}-L_{61}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{61}-L_{61}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{61}-L_{62}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{62}-L_{62}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{62}-L_{63}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{63}-L_{63}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{63}-L_{64}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{64}-L_{64}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{64}-L_{65}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{65}-L_{65}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{65}-L_{66}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{66}-L_{66}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{66}-L_{67}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{67}-L_{67}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{67}-L_{68}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{68}-L_{68}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{68}-L_{69}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{69}-L_{69}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{69}-L_{70}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{70}-L_{70}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{70}-L_{71}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{71}-L_{71}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{71}-L_{72}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{72}-L_{72}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{72}-L_{73}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{73}-L_{73}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{73}-L_{74}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{74}-L_{74}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{74}-L_{75}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{75}-L_{75}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{75}-L_{76}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{76}-L_{76}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{76}-L_{77}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{77}-L_{77}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{77}-L_{78}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{78}-L_{78}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{78}-L_{79}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{79}-L_{79}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{79}-L_{80}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{80}-L_{80}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{80}-L_{81}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{81}-L_{81}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{81}-L_{82}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{82}-L_{82}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{82}-L_{83}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{83}-L_{83}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{83}-L_{84}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{84}-L_{84}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{84}-L_{85}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{85}-L_{85}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{85}-L_{86}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{86}-L_{86}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{86}-L_{87}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{87}-L_{87}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{87}-L_{88}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{88}-L_{88}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{88}-L_{89}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{89}-L_{89}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{89}-L_{90}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{90}-L_{90}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{90}-L_{91}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{91}-L_{91}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{91}-L_{92}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{92}-L_{92}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{92}-L_{93}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{93}-L_{93}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{93}-L_{94}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{94}-L_{94}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00
	U_{94}-L_{95}	-76.64	55.13	-3.80	2.57	0.15	0.14	0.00	0.00	0.00	0.00
	U_{95}-L_{95}	-20.35	3.86	-1.76	1.28	0.63	-0.54	0.00	0.00	0.00	0.00
	U_{95}-L_{96}	-78.38	71.14	-3.63	2.75	0.69	0.06	0.00	0.00	0.00	0.00
	U_{96}-L_{96}	-42.73	133.41	-2.26	5.23	1.73	0.65	0.00	0.00	0.00	0.00

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.80

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1998

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Min) End (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	U_0 - U_1	-75.12	-0.70	0.86	1.43	-2.26	-4.81	7.73	12.88	-20.34	-43.31
	U_1 - U_2	-48.61	-20.16	0.29	2.79	-2.09	-8.40	2.62	15.50	-18.78	-76.05
	U_2 - U_3	-112.19	86.51	1.37	3.60	-3.15	-5.20	12.21	32.40	-28.38	-46.84
	U_3 - U_4	-15.68	66.14	2.01	3.37	-4.83	-3.58	20.75	30.36	-43.45	-122.24
	U_4 - U_5	-9.16	61.58	2.36	3.06	-15.49	-2.91	21.20	30.24	-139.39	-26.19
	U_5 - U_6	42.76	120.09	2.67	3.60	-4.62	-0.17	24.02	32.42	-43.39	-1.50
	U_6 - U_7	43.34	7.23	4.54	2.66	-0.32	-5.25	24.56	18.46	-43.47	-47.25
	U_7 - U_8	-47.40	525.96	-8.79	20.58	0.00	0.00	-61.11	185.22	0.00	0.00
	U_8 - U_9	474.61	-124.27	19.48	-5.35	0.00	0.00	157.37	-59.45	0.00	0.00
	U_9 - U_{10}	46.76	20.63	1.49	2.24	1.01	-4.37	13.45	20.19	9.10	-39.36
	U_{10} - U_{11}	64.51	-138.68	2.44	1.76	0.69	-8.92	23.73	7.63	6.11	-69.82
	U_{11} - U_{12}	27.83	-140.42	2.86	1.26	-0.16	-7.69	25.78	11.30	-1.42	-68.83
	U_{12} - U_{13}	-106.18	-154.99	2.04	0.74	-0.48	-4.14	18.37	6.62	-4.28	-37.22
	U_{13} - U_{14}	-137.97	-262.06	1.36	0.36	-0.61	-2.11	12.52	3.26	-5.48	-20.42
	U_{14} - U_{15}	-245.66	-182.98	1.35	1.02	-26.24	-6.95	12.11	9.22	-227.18	-62.56
	U_{15} - U_{16}	-123.52	-326.70	1.72	0.79	-4.92	-9.60	15.46	7.15	-44.24	-86.42
	U_{16} - U_{17}	-269.82	-144.58	0.59	0.05	-14.64	-4.28	5.28	0.43	-131.74	-38.50
	U_{17} - U_{18}	-144.10	-67.23	0.66	-0.32	-6.66	-1.70	5.94	-2.87	-59.93	-15.29
	U_{18} - U_{19}	-170.35	-20.48	0.50	-0.05	-7.01	1.06	4.46	-0.46	-63.10	9.51
	U_{19} - U_{20}	-186.12	24.46	0.57	-0.56	-6.82	2.02	5.15	-5.00	-61.42	18.03
	U_{20} - U_{21}	-186.12	209.21	0.09	1.95	-1.31	0.12	0.00	15.92	-23.52	1.06
	U_{21} - U_{22}	-54.20	70.21	0.28	0.02	-10.48	-2.54	0.00	5.21	-94.32	0.00
	U_{22} - U_{23}	-227.18	225.63	0.14	0.00	-2.62	-2.62	0.00	17.14	-23.65	0.00
	U_{23} - U_{24}	-327.18	-325.33	1.48	3.32	-8.56	-12.42	13.35	29.92	-77.02	-111.76
	U_{24} - U_{25}	-338.53	-249.71	1.89	3.98	-9.75	-14.29	17.29	36.48	-102.89	-132.89
	U_{25} - U_{26}	-396.09	-197.74	3.27	6.52	-13.60	-5.43	29.44	58.71	-122.43	-48.91
	U_{26} - U_{27}	-344.15	-179.39	5.02	4.37	-8.84	-27.28	45.16	39.34	-79.54	-245.56
	U_{27} - U_{28}	-226.10	-295.71	3.65	4.06	-7.29	-37.18	32.85	36.57	-65.62	-334.69
	U_{28} - U_{29}	-350.17	-90.75	4.25	5.62	-6.48	-8.65	38.25	50.52	-58.28	-77.86
	U_{29} - U_{30}	-227.32	76.21	3.08	4.76	-4.20	-11.77	27.68	42.83	-37.78	-105.91
	U_{30} - U_{31}	-167.07	39.82	5.51	5.42	-8.65	-2.03	49.58	48.76	-81.41	-18.23
	U_{31} - U_{32}	-44.09	139.42	4.38	-11.29	1.90	0.00	39.41	125.47	17.08	0.00
	U_{32} - U_{33}	-1192.75	-0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{33} - U_{34}	-261.00	1265.93	-11.58	40.57	0.00	0.00	-104.30	365.16	0.00	0.00
	U_{34} - U_{35}	-1192.75	-0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{35} - U_{36}	-5.20	11.62	-0.63	-0.77	0.00	0.00	0.00	0.00	0.00	0.00
	U_{36} - U_{37}	-5.20	11.62	-0.63	-0.77	0.00	0.00	0.00	0.00	0.00	0.00
	U_{37} - U_{38}	-150.58	33.05	3.05	6.21	-8.80	-7.64	27.49	37.86	7.23	-68.77
	U_{38} - U_{39}	-142.36	3.74	4.62	-0.32	-8.15		33.63	41.61	-2.84	-73.31
	U_{39} - U_{40}	-38.56	3.74	4.62	-0.32	-8.15		38.56	41.61	-2.84	-73.31
	U_{40} - U_{41}	-31.67	-34.01	3.66	4.08	-1.93	-4.43	32.92	36.71	-17.33	-57.83
	U_{41} - U_{42}	-86.04	-77.79	3.91	4.47	-2.14	-5.07	35.20	39.74	-19.19	-65.77
	U_{42} - U_{43}	-60.95	-86.97	3.83	3.88	-23.80	-7.59	34.46	34.90	-214.18	-68.31
	U_{43} - U_{44}	-52.89	-28.60	4.02	4.10	-12.20	-3.62	36.20	36.88	-109.81	-32.54
	U_{44} - U_{45}	-15.12	113.76	4.58	3.57	-8.25	1.83	41.08	32.12	-74.25	16.45
	U_{45} - U_{46}	-38.56	3.74	4.62	-0.32	-8.15		38.56	41.61	-2.84	-73.31
	U_{46} - U_{47}	-2.69	209.81	-3.12	8.28	-6.38	2.38	-28.10	74.54	-57.41	74.66
	U_{47} - U_{48}	-64.51	-138.68	2.44	1.76	0.69	-8.92	23.73	7.63	6.11	-69.82
	U_{48} - U_{49}	-122.28	1156.59	-10.91	41.55	0.00	0.00	-104.60	2313.70	-158.94	1503.45
	U_{49} - U_{50}	-1153.78	-166.80	41.09	-11.70	0.00	0.00	369.83	-105.32	0.00	0.00
	U_{50} - U_{51}	-67.81	52.60	-0.10	0.65	0.00	0.00	-115.55	84.61	-333.33	10.96
	U_{51} - U_{52}	-178.87	-59.61	4.41	4.98	0.54	-10.47	39.71	44.75	4.89	-94.25
	U_{52} - U_{53}	-68.77	-178.57	4.54	4.89	-4.51	-14.92	53.42	43.92	-40.55	-134.26
	U_{53} - U_{54}	-68.77	-178.57	4.54	4.89	-4.51	-14.92	53.42	43.92	-40.55	-134.26
	U_{54} - U_{55}	-236.40	-133.06	4.52	3.97	-7.68	-27.29	40.66	35.69	-68.18	-245.61
	U_{55} - U_{56}	-98.63	-313.14	4.78	4.50	-25.70	-6.90	43.00	40.46	-231.34	-62.06
	U_{56} - U_{57}	-394.19	-47.25	2.66	-0.32	-6.66	-1.70	5.94	-2.87	-59.93	-15.29
	U_{57} - U_{58}	-170.35	-20.48	0.50	-0.05	-7.01	1.06	4.46	-0.46	-63.10	9.51
	U_{58} - U_{59}	-186.12	24.46	0.57	-0.56	-6.82	2.02	5.15	-5.00	-61.42	18.03
	U_{59} - U_{60}	-186.12	209.21	0.09	1.95	-1.31	0.12	0.00	15.92	-23.52	1.06
	U_{60} - U_{61}	-54.20	70.21	0.28	0.02	-10.48	-2.54	0.00	5.21	-94.32	0.00
	U_{61} - U_{62}	-227.18	225.63	0.14	0.00	-2.62	-2.62	0.00	17.14	-23.65	0.00
	U_{62} - U_{63}	-327.18	-325.33	1.48	3.32	-8.56	-12.42	13.35	29.92	-77.02	-111.76
	U_{63} - U_{64}	-338.53	-249.71	1.89	3.98	-9.75	-14.29	17.29	36.48	-102.89	-132.89
	U_{64} - U_{65}	-396.09	-197.74	3.27	6.52	-13.60	-5.43	29.44	58.71	-122.43	-48.91
	U_{65} - U_{66}	-344.15	-179.39	5.02	4.37	-8.84	-27.28	45.16	39.34	-79.54	-245.56
	U_{66} - U_{67}	-226.10	-295.71	3.65	4.06	-7.29	-37.18	32.85	36.57	-65.62	-334.69
	U_{67} - U_{68}	-350.17	-90.75	4.25	5.62	-6.48	-8.65	38.25	50.52	-58.28	-77.86
	U_{68} - U_{69}	-227.32	76.21	3.08	4.76	-4.20	-11.77	27.68	42.83	-37.78	-105.91
	U_{69} - U_{70}	-167.07	39.82	5.51	5.42	-8.65	-2.03	49.58	48.76	-81.41	-18.23
	U_{70} - U_{71}	-44.09	139.42	4.38	-11.29	1.90	0.00	39.41	125.47	17.08	0.00
	U_{71} - U_{72}	-1192.75	-0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{72} - U_{73}	-261.00	1265.93	-11.58	40.57	0.00	0.00	-104.30	365.16	0.00	0.00
	U_{73} - U_{74}	-1192.75	-0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{74} - U_{75}	-5.20	11.62	-0.63	-0.77	0.00	0.00	0.00	0.00	0.00	0.00
	U_{75} - U_{76}	-5.20	11.62	-0.63	-0.77	0.00	0.00	0.00	0.00	0.00	0.00
	U_{76} - U_{77}	-150.58	33.05	3.05	6.21	-8.80	-7.64	27.49	37.86	7.23	-68.77
	U_{77} - U_{78}	-142.36	3.74	4.62	-0.32	-8.15		33.63	41.61	-2.84	-73.31
	U_{78} - U_{79}	-38.56	3.74	4.62	-0.32	-8.15		38.56	41.61	-2.84	-73.31
	U_{79} - U_{80}	-31.67	-34.01	3.66	4.08	-1.93	-4.43	32.92	36.71	-17.33	-57.83
	U_{80} - U_{81}	-86.04	-77.79	3.91	4.47	-2.14	-5.07	35.20	39.74	-19.19	-65.77
	U_{81} - U_{82}	-60.95	-86.97	3.83	3.88	-23.80	-7.59	34.46	34.90	-214.18	-68.31
	U_{82} - U_{83}	-52.89	-28.60	4.02	4.10	-12.20	-3.62	36.20	36.88	-109.81	-32.54
	U_{83} - U_{84}	-15.12	113.76	4.58	3.57	-8.25	1.83	41.08	32.12	-74.25	16.45
	U_{84} - U_{85}	-38.56	3.74	4.62	-0.32	-8.15		38.56	41.61	-2.84	-73.31
	U_{85} - U_{86}	-2.69	209.81	-3.12	8.28	-6.38	2.38	-28.10	74.54	-57.41	74.66
	U_{86} - U_{87}	-64.51	-138.68	2.44	1.76	0.69	-8.92	23.73	7.63	6.11	-69.82
	U_{87} - U_{88}	-122.28	1156.59	-10.91	41.55	0.00	0.00	-104.60	2313.70	-158.94	1503.45
	U_{88} - U_{89}	-1153.78	-166.80	41.09	-11.70	0.00	0.00	369.83	-105.32	0.00	0.00
	U_{89} - U_{90}	-67.81	52.60	-0.10	0.65	0.00	0.00	-115.55	84.61	-333.33	10.96
	U_{90} - U_{91}	-178.87	-59.61	4.41	4.98	0.54	-10.47	39.71	44.75	4.89	-94.25
	U_{91} - U_{92}	-68.77	-178.57	4.54	4.89	-4.51	-14.92	53.42	43.92	-40.55	-134.26
	U_{92} - U_{93}	-68.77	-178.57	4.54	4.89	-4.51	-14.92	53.42	43.92	-40.55	-134.26
	U_{93} - U_{94}	-236.40	-133.06	4.52	3.97	-7.68	-27.29	40.66	35.69	-68.18	-245.61
	U_{94} - U_{95}	-98.63	-313.14	4.78	4.50	-25.70	-6.90	43.00	40.46	-231.34	-62.06
	U_{95} - U_{96}	-394.19	-47.25	2.66	-0.32	-6.66	-1.70	5.94	-2.87	-59.93	-15.29
	U_{96} - U_{97}	-170.35	-20.48	0.50	-0.05	-7.01	1.06	4.46	-0.46	-63.10	9.51
	U_{97} - U_{98}	-186.12	24.46	0.57	-0.56	-6.82	2.02	5.15	-5.00	-61.42	18.03
	U_{98} - U_{99}	-186.12	209.21	0.09	1.95	-1.31	0.12	0.00	15.92	-23.52	1.06
	U_{99} - U_{100}	-54.20	70.21	0.28	0.02	-10.48	-2.54	0.00	5.21	-94.32	0.00
	U_{100} - U_{101}	-227.18	225.63	0.14	0.00	-2.62	-2.62	0.00	17.14	-23.65	0.00
	U_{101} - U_{102}	-327.18	-325.33	1.48	3.32	-8.56	-12.42	13.35	29.92	-77.02	-111.76
	U_{102} - U_{103}	-338.53	-249.71	1.89	3.98	-9.75	-14.29	17.29	36.48	-102.89	-132.89
	U_{103} - U_{104}	-396.09	-197.74	3.27	6.52	-13.60	-5.43	29.44	58.71	-122.43	-48.91
	U_{104} - U_{105}	-344.15	-179.39	5.02	4.37	-8.84	-27.28	45.16	39.34	-79.54	-245.56
	U_{105} - U_{106}	-226.10	-295.71	3.65	4.06	-7.29	-37.18	32.85	36.57	-65.62	-334.69
	U_{106} - U_{107}	-350.17	-90.75	4.25	5.62	-6.48	-8.65	38.25	50.52	-58.28	-77.86
	U_{107} - U_{108}	-227.32	76.21	3.08	4.76	-4.20	-11.77	27.68	42.83	-37.78	-105.91
	U_{108} - U_{109}	-167.07	39.82	5.51	5.42	-8.65	-2.03	49.58	48.76	-81.41	-18.23
	U_{109} - U_{110}	-44.09	139.42	4.38	-11.29	1.90	0.00	39.41	125.47	17.08	0.00
	U_{110} - U_{111}	-1192.75	-0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{111} - U_{112}	-261.00	1265.93	-11.58	40.57	0.00	0.00	-104.30	365.16	0.00	0.00
	U_{112} - U_{113}	-1192.75	-0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{113} - U_{114}	-5.20	11.62	-0.63	-0.77	0.00	0.00	0.00	0.00	0.00	0.00
	U_{114} - U_{115}	-5.20	11.62	-0.63	-0.77	0.00	0.00	0.00	0.00	0.00	0.00
	U_{115} - U_{116}	-150.58	33.05	3.05	6.21	-8.80	-7.64	27.49	37.86	7.23	-68.77
	U_{116} - U_{117}	-142.36	3.74	4.62	-0.32	-8.15		33.63	41.61	-2.84	-73.31
	U_{117} - U_{118}	-38.56	3.74	4.62	-0.32	-8.15		38.56	41.61	-2.84	-73.31
	U_{118} - U_{119}	-31.67	-34.01	3.66	4.08	-1.93	-4.43	32.92	36.71	-17.33	-57.83
	U_{119} - U_{120}	-86.04	-77.79	3.91	4.47	-2.14	-5.07	35.20	39.74	-19.19	-65.77
	U_{120} - U_{121}	-60.95	-86.97	3.83	3.88	-23.80	-7.59	34.46	34.90	-214.18	-68.31
	U_{121} - U_{122}	-52.89	-28.60	4.02	4.10	-12.20	-3.62	36.20	36.88	-109.81	-32.54
	U_{122} - U_{123}	-15.12	113.76	4.58	3.57	-8.25	1.83	41.08	32.12	-74.25	16.45
	U_{123} - U_{124}	-38.56	3.74	4.62	-0.32	-8.15		38.56	41.61	-2.84	-73.31
	U_{124} - U_{125}	-2.69	209.81	-3.12	8.28	-6.38	2.38	-28.10	74.54	-57.41	74.66
	U_{125} - U_{126}	-64.51	-138.68	2.44	1.76	0.69	-8.92	23.73	7.63	6.11	-69.82
	U_{126} - U_{127}	-122.28	1156.59	-10.91	41.55	0.00	0.00	-104.60	2313.70	-158.94	1503.45
	U_{127} - U_{128}	-1153.78	-166.80	41.09	-11.70	0.00	0.00	369.83	-105.32	0.00	0.00
	U_{128} - U_{129}	-67.81	52.60	-0.10	0.65	0.00	0.00	-115.55	84.61	-333.33	10.96
	U_{129} - U_{130}	-178.87	-59.61	4.41	4.98	0.54	-10.47	39.71	44.75	4.89	-94.25
	U_{130} - U_{131}	-68.77	-178.57	4.54	4.89	-4.51	-14.92	53.42	43.92	-40.55	-134.26
	U_{131} - U_{132}	-68.77	-178.57	4.54	4.89	-4.51	-14.92	53.42	43.92	-40.55	-134.26
	U_{132} - U_{133}	-236.40	-133.06	4.52	3.97	-7.68	-27.29	40.66	35.69	-68.18	-245.61
	U_{133} - U_{134}	-98.63	-313.14	4.78	4.50	-25.70	-6.90	43.00	40.46	-231.34	-62.06
	U_{134} - U_{135}	-394.19	-47.25	2.66	-0.32	-6.66	-1.70	5.94	-2.87	-59.93	-15.29
	U_{135} - U_{136}	-170.35	-20.48	0.50	-0.05	-7.01	1.06	4.46	-0.46	-63.10	9.51
	U_{136} - U_{137}	-186.12	24.46	0.57	-0.56	-6.82	2.02	5.15	-5.00	-61.42	18.03
	U_{137} - U_{138}	-186.12	209.21	0.09	1.95	-1.31	0.12	0.00	15.92	-23.52	1.06
	U_{138} - U_{139}	-54.20	70.21	0.28	0.02	-10.48	-2.54	0.00	5.21	-94.32	0.00
	U_{139} - U_{140}	-227.18	225.63	0.14	0.00	-2.62	-2.62	0.00	17.14	-23.65	0.00
	U_{140} - U_{141}	-327.18	-325.33	1.48	3.32	-8.56	-12.42	13.35	29.92	-77.02	-111.76
	U_{141} - U_{142}	-338.53	-249.71	1.89	3.98	-9.75	-14.29	17.29	36.48	-102.89	-132.89
	U_{142} - U_{143}	-396.09	-197.74	3.27	6.52	-13.60	-5.43	29.44	58.71	-122.43	-48.91
	U_{143} - U_{144}	-344.15	-179.39	5.02	4.37	-8.84	-27.28	45.16	39.34	-79.54	-245.56
	U_{144} - U_{145}	-226.10	-295.71	3.65	4.06	-7.29	-37.18	32.85	36.57	-65.62	-334.69
	U_{145} - U_{146}	-350.17	-90.75	4.25	5.62	-6.48	-8.65	38.25	50.52	-58.28	-77.86
	U_{146} - U_{147}	-227.32	76.21	3.08	4.76	-4.20	-11.77	27.68	42.83	-37.78	-105.91
	U_{147} - U_{148}	-167.07	39.82	5.51	5.42	-8.65	-2.03	49.58	48.76	-81.41	-18.23
	U_{148} - U_{149}	-44.09	139.42	4.38	-11.29	1.90	0.00	39.41	125.47	17.08	0.00
	U_{149} - U_{150}	-1192.75	-0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{150} - U_{151}	-261.00	1265.93	-11.58	40.57	0.00	0.00	-104.30	365.16	0.00	0.00
	U_{151} - U_{152}	-1192.75	-0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{152} - U_{153}	-5.20	11.62	-0.63	-0.77	0.00	0.00	0.00	0.00	0.00	0.00
	U_{153} - U_{154}	-5.20	11.62	-0.63	-0.77	0.00	0.00	0.00	0.00	0.00	0.00
	U_{154} - U_{155}	-150.58	33.05	3.05	6.21	-8.80	-7.64	27.49	37.86	7.23	-68.77
	U_{155} - U_{156}	-142.36	3.74	4.62	-0.32	-8.15		33.63	41.61	-2.84	-73.31
	U_{156} - U_{157}	-38.56	3.74	4.62	-0.32	-8.15		38.56	41.61	-2.84	-73.31
	U_{157} - U_{158}	-31.67	-34.01	3.66	4.08	-1.93	-4.43	32.92	36.71	-17.33	-57.83
	U_{158} - U_{159}	-86.04	-77.79	3.91	4.47	-2.14	-5.07	35.20	39.74	-19.19	-65.77
	U_{159} - U_{160}	-60.95	-86.97	3.83	3.88	-23.80	-7.59	34.46	34.90	-214.18	-68.31
	U_{160} - U_{161}	-52.89	-28.60	4.02	4.10	-12.20	-3.62	36.20	36.88	-109.81	-32.54
	U_{161} - U_{162}	-15.12	113.76	4.58	3.57	-8.25	1.83	41.08	32.12	-74.25	16.45
	U_{162} - U_{163}	-38.56	3.74	4.62	-0.32	-8.15		38.56	41.61	-2.84	-73.31
	U_{163} - U_{164}	-2.69	209.81	-3.12	8.28	-6.38	2.38	-28.10	74.54	-57.41	74.66
	U_{164} - U_{165}	-64.51	-138.68	2.44	1.76	0.69	-8.92	23.73	7.63	6.11	-69.82
	U_{165} - U_{166}	-122.28	1156.59	-10.91	41.55	0.00	0.00	-104.60	2313.70	-158.94	1503.45
	U_{166} - U_{167}	-1153.78	-166.80	41.09	-11.70	0.00	0.00	369.83	-105.32	0.00	0.00
	U_{167} - U_{168}	-67.81	52.60	-0.10	0.65	0.00	0.00	-115.55	84.61	-333.33	10.96
	U_{168} - U_{169}	-178.87	-59.61	4.41	4.98	0.54	-10.47	39.71	44.75	4.89	-94.25
	U_{169} - U_{170}	-68.77	-178.57	4.54	4.89	-4.51	-14.92	53.42	43.92	-40.55	-134.26
	U_{170} - U_{171}	-68.77	-178.57	4.54	4.89	-4.51	-14.92	53.42	43.92	-40.55	-134.26
	U_{171} - U_{172}	-236.40	-133.06	4.52	3.97	-7.68	-27.29	40.66	35.69	-68.18	-245.61
	U_{172} - U_{173}	-98.63	-313.14	4.78	4.50	-25.70	-6.90	43.00	40.46	-231.34	-62.06
	U_{173} - U_{174}	-394.19	-47.25	2.66	-0.32	-6.66	-1.70	5.94	-2.87	-59.93	-15.29
	U_{174} - U_{175}	-170.35	-20.48	0.50	-0.05	-7.01	1.06	4.46	-0.46	-63.10	9.51
	U_{175} - U_{176}	-186.12	24.46	0.57	-0.56	-6.82	2.02	5.15	-5.00	-61.42	18.03
	U_{176} - U_{177}	-186.12	209.21	0.09	1.95	-1.31	0.12	0.00	15.92	-23.52	1.06
	U_{177} - U_{178}	-54.20	70.21	0.28	0.02	-10.48	-2.54	0.00	5.21	-94.32	0.00
	U_{178} - U_{179}	-227.18	225.63	0.14	0.00	-2.62	-2.62	0.00	17.14	-23.65	0.00
	U_{179} - U_{180}	-327.18	-325.33	1.48	3.32	-8.56	-12.42	13.35	29.92	-77.02	-111.76
	U_{180} - U_{181}	-338.53	-249.71	1.89	3.98	-9.75	-14.29	17.29	36.48	-102.89	-132.89
	U_{181} - U_{182}	-396.09	-197.74	3.27	6.52	-13.60	-5.43	29.44	58.71	-122.43	-48.91
	U_{182} - U_{183}	-344.15	-179.39	5.02	4.37	-8.84	-27.28	45.16	39.34	-79.54	-245.56
	U_{183} - U_{184}	-226.10	-295.71	3.65	4.06	-7.29	-37.18	32.85	36.57	-65.62	-334.69
	U_{184} - U_{185}	-350.17	-90.75	4.25	5.62	-6.48	-8.65	38.25	50.52	-58.28	-77.86
	U_{185} - U_{186}	-227.32	76.21	3.08	4.76	-4.20	-11.77	27.68	42.83	-37.78	-105.91
	U_{186} - U_{187}	-167.07	39.82	5.51	5.42	-8.65	-2.03	49.58	48.76	-81.41	-18.23
	U_{187} - U_{188}	-44.09	139.42	4.38	-11.29	1.90	0.00	39.41	125.47	17.08	0.00
	U_{188} - U_{189}	-1192.75	-0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{189} - $U

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: **HS20 Lane**
Condition: **As-Built**

Vehicle Load Factors — Dt, Factor: 1.33 — Lt, Factor: 2.17
Pedestrian Load Factors — Dt, Factor: 1.30 — Lt, Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Min) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	L_0-L_1	-15.54	-19.33	2.73	-3.45	1.78	-2.35	24.57	-31.06	16.05	-21.19
	L_0-L_1	39.76	-67.96	-0.99	-6.31	-0.17	1.23	-8.92	-56.78	-1.30	-7.51
	L_0-L_1	19.39	-42.29	-0.32	-6.29	1.36	2.40	-47.66	-47.62	12.28	-21.58
	L_0-L_1	-11.34	11.55	-3.77	-12.17	1.25	3.99	-33.93	-109.51	11.28	35.87
	L_1-L_2	-49.11	208.03	-8.83	0.27	-24.21	2.48	-48.43	2.72	-24.21	32.48
	L_1-L_2	-0.48	181.07	-4.51	-0.61	2.31	5.00	-40.66	-5.49	20.83	47.66
	L_1-L_2	41.44	78.72	0.00	0.00	-10.04	2.90	-53.97	122.13	-10.04	2.90
	L_1-L_2	-25.11	448.74	0.00	0.00	-12.56	168.12	0.00	0.00	-12.56	168.12
	L_1-L_3	425.89	-36.02	0.00	0.00	153.13	13.04	0.00	0.00	153.13	13.04
	L_1-L_3	150.02	-126.53	0.00	0.00	1.39	-1.04	0.00	0.00	12.49	-9.32
	L_1-L_3	120.44	-115.99	0.98	-4.52	6.03	-2.62	8.81	-40.63	54.26	-23.54
	L_1-L_3	89.08	-108.13	0.00	0.00	-6.01	2.61	6.19	-40.37	-20.66	10.89
	L_2-L_3	-45.24	-121.26	-2.78	-3.83	1.97	0.94	-25.05	-32.64	-17.68	8.42
	L_2-L_3	96.32	-264.98	-1.54	-17.48	1.60	1.01	13.89	-157.28	-14.40	9.60
	L_2-L_3	52.02	-64.08	-2.34	-4.49	0.31	0.08	-133.21	-40.06	-14.40	9.60
	L_2-L_3	-191.89	-319.35	-7.75	-8.23	0.71	0.26	-69.77	-74.10	6.38	2.36
	L_2-L_3	-339.58	-64.88	-8.95	-0.18	0.57	0.29	-69.77	-74.10	5.59	-2.60
	L_2-L_4	-154.59	-31.26	-4.45	-1.63	0.22	-0.20	-40.03	14.64	1.99	-1.82
	L_2-L_4	-215.80	145.76	-3.36	-5.97	0.22	-0.07	-30.28	81.75	-3.36	0.59
	L_2-L_4	-32.61	49.67	-3.62	1.66	-5.52	3.37	-32.61	14.87	-49.68	30.30
	L_3-L_4	-2.68	-185.02	3.45	-8.29	1.87	-5.16	31.05	-74.60	16.86	-46.46
	L_3-L_4	15.78	-249.23	7.97	-11.75	2.35	-7.25	18.43	-101.75	10.06	-62.75
	L_3-L_4	-4.23	-180.72	-0.79	-7.55	-0.24	1.66	-7.07	-67.93	-2.17	14.96
	L_3-L_4	-14.89	-68.38	-1.65	-2.68	-0.24	1.66	-14.89	-68.38	-1.65	14.96
	L_3-L_4	-252.85	-295.03	-8.73	-11.10	1.50	2.75	-78.61	-89.86	-13.51	24.71
	L_3-L_4	-479.08	-291.36	-13.81	-11.31	1.50	2.75	-47.05	-118.75	-11.31	-41.39
	L_3-L_4	-475.08	-292.18	-14.52	-17.55	4.28	4.35	-130.71	-157.94	-38.52	39.46
	L_3-L_4	-280.47	-64.51	-18.30	-5.86	3.56	6.30	-164.69	-52.77	32.08	56.66
	L_3-L_4	-292.36	219.74	-18.30	-5.86	3.56	6.30	-164.69	-52.77	32.08	56.66
	L_3-L_4	-225.83	141.30	-11.84	-6.20	3.14	6.00	-106.52	-1.78	28.24	53.99
	L_3-L_4	-201.52	229.05	-8.41	-1.75	4.49	3.69	-85.01	1.65	-44.87	27.46
	L_3-L_5	-160.03	387.16	0.50	3.36	-8.33	13.68	-49.46	30.21	-74.98	123.10
	L_3-L_5	-202.71	204.45	0.00	0.00	-2.63	-84.56	0.00	0.00	-23.63	-84.56
	L_3-L_5	-375.76	103.53	0.00	0.00	-2.63	-84.56	0.00	0.00	-23.63	-84.56
	L_3-L_5	1072.48	-412.35	0.00	0.00	37.66	-14.67	0.00	0.00	338.90	-132.01
	L_3-L_5	337.46	-47.37	0.00	0.00	3.04	1.18	0.00	0.00	27.34	10.66
	L_4-L_5	475.57	-49.03	0.00	0.00	15.18	-4.07	0.00	0.00	136.64	-36.59
	L_4-L_5	1.13	-28.76	0.00	0.00	0.01	-2.24	0.00	0.00	0.09	-20.14
	L_4-L_5	226.51	-41.81	-2.25	-6.06	4.68	3.17	-2.24	-54.57	-42.08	-28.56
	L_4-L_5	214.45	-56.43	-1.01	-7.68	2.58	4.63	-9.09	-69.10	-23.22	41.63
	L_4-L_5	49.27	-48.36	-0.38	-6.71	3.05	4.80	-44.99	-202.92	-28.35	43.24
	L_4-L_5	49.27	-202.49	-0.38	-16.71	3.15	4.80	-48.46	-150.42	28.35	43.24
	L_4-L_5	-197.10	24.93	-3.74	-1.62	0.00	0.00	-144.51	-7.35	-4.78	0.00
	L_4-L_5	-111.92	0.86	-9.08	-5.88	3.25	4.07	-81.68	-52.92	29.09	36.60
	L_4-L_5	-75.76	103.53	-8.79	-7.55	3.25	4.07	-81.68	-52.92	29.09	36.60
	L_4-L_6	-60.78	179.81	-6.58	-2.12	2.96	4.34	-59.21	19.04	26.67	39.70
	L_4-L_6	-81.80	266.56	-3.52	1.05	-8.20	6.99	31.71	9.41	-73.82	62.92
	L_4-L_6	24.08	113.39	0.00	0.00	-1.92	-11.22	0.00	0.00	-17.26	-100.99
	L_4-L_6	-99.81	-279.28	0.00	0.00	-1.92	-11.22	0.00	0.00	-17.26	-100.99
	L_4-L_6	-371.96	-1004.43	0.00	0.00	38.72	-14.91	0.00	0.00	348.49	-134.19
	L_4-L_6	1026.29	362.30	0.00	0.00	38.72	-14.91	0.00	0.00	348.49	-134.19
	L_4-L_6	-226.76	-125.36	0.00	0.00	-9.90	-2.69	0.00	0.00	-89.06	-24.25
	L_4-L_6	429.14	-114.29	0.00	0.00	-9.90	-2.69	0.00	0.00	-89.06	-24.25
	L_4-L_6	278.05	-132.91	1.76	-9.28	2.95	4.52	15.80	-83.54	26.59	44.32
	L_4-L_6	278.05	-132.91	1.76	-9.28	2.95	4.52	15.80	-83.54	26.59	44.32
	L_5-L_6	222.98	-243.21	-2.52	-8.75	3.71	4.12	-22.70	-78.74	33.36	37.09
	L_5-L_6	429.14	-114.29	-2.52	-8.75	3.71	4.12	-22.70	-78.74	33.36	37.09
	L_5-L_6	-167.98	-470.72	-17.29	-13.94	4.40	3.24	-155.09	-125.49	-39.56	29.16
	L_5-L_6	-445.06	-93.48	-14.44	-13.93	3.87	3.91	-129.99	-125.39	-34.87	8.23
	L_5-L_6	-291.76	-319.50	-4.70	-7.62	3.87	3.91	-129.99	-125.39	-34.87	8.23
	L_5-L_6	-392.27	38.30	-7.90	-1.51	1.87	-0.52	-71.14	-13.55	16.81	-4.68
	L_5-L_6	-392.27	38.30	-7.90	-1.51	1.87	-0.52	-68.24	-13.55	16.81	-4.68
	L_5-L_6	-297.04	199.10	-7.01	-1.58	1.16	-0.57	-63.08	14.19	10.46	-5.15
	L_5-L_6	-297.04	199.10	-7.01	-1.58	1.16	-0.57	-63.08	14.19	10.46	-5.15
	L_6-L_7	24.53	-109.42	0.14	0.28	3.04	-5.13	-1.26	2.51	37.38	-49.20
	L_6-L_7	-139.90	-177.77	2.23	-6.10	-0.32	0.71	20.07	-34.91	-2.90	6.35
	L_6-L_7	-115.57	-188.51	2.23	-6.10	-0.32	0.71	20.07	-34.91	-2.90	6.35
	L_6-L_7	47.96	-293.64	-0.50	-6.14	-0.24	0.96	-4.46	-73.29	-2.18	8.80
	L_6-L_7	47.96	-293.64	-0.50	-6.14	-0.24	0.96	-4.46	-73.29	-2.18	8.80
	L_6-L_7	-47.68	-343.07	-3.89	-16.66	0.26	1.80	-34.98	-140.91	-21.91	3.46
	L_6-L_7	-341.10	86.20	-13.45	-1.62	1.58	1.40	-121.03	-14.56	12.43	12.57
	L_6-L_7	-341.10	86.20	-13.45	-1.62	1.58	1.40	-121.03	-14.56	12.43	12.57
	L_6-L_7	-201.09	152.50	-7.19	-1.62	1.03	2.42	-64.73	14.61	9.23	21.75
	L_6-L_7	-201.09	152.50	-7.19	-1.62	1.03	2.42	-64.73	14.61	9.23	21.75
	L_7-L_8	-148.24	148.96	0.00	0.00	-1.23	1.50	0.00	0.00	-11.11	13.51
	L_7-L_8	-148.24	148.96	0.00	0.00	-1.23	1.50	0.00	0.00	-11.11	13.51
	L_7-L_8	-428.31	-26.46	0.00	0.00	18.65	-1.36	0.00	0.00	167.86	-12.28
	L_7-L_8	-428.31	-26.46	0.00	0.00	18.65	-1.36	0.00	0.00	167.86	-12.28
	L_7-L_8	70.66	-27.55	0.00	0.00	-0.22	-0.47	0.00	0.00	-1.95	-4.24
	L_7-L_8	70.66	-27.55	0.00	0.00	-0.22	-0.47	0.00	0.00	-1.95	-4.24
	L_7-L_8	194.48	-25.11	0.67	-9.55	3.48	3.00	2.65	-85.94	31.29	27.00
	L_7-L_8	194.48	-25.11	0.67	-9.55	3.48	3.00	2.65	-85.94	31.29	27.00
	L_7-L_8	-45.48	-80.88	-6.75	-7.31	2.14	0.74	-60.81	-65.76	19.30	6.64
	L_7-L_8	-45.48	-80.88	-6.75	-7.31	2.14	0.74	-60.81	-65.76	19.30	6.64
	L_7-L_8	-74.44	-5.53	0.00	0.00	-2.86	2.59	0.00	0.00	-25.71	23.31
Structure 2	L_8-L_9	-15.54	-19.33	2.73	-3.45	1.78	-2.35	24.57	-31.06	16.05	-21.19
	L_8-L_9	39.76	-67.96	-0.99	-6.31	-0.17	1.23	-8.92	-56.78	-1.30	-7.51
	L_8-L_9	19.39	-42.29	-0.32	-6.29	1.36	2.40	-47.66	-47.62	12.28	-21.58
	L_8-L_9	-11.34	11.55	-3.77	-12.17	1.25	3.99	-33.93	-109.51	11.28	35.87
	L_9-L_{10}	-49.11	208.03	-8.83	0.27	-24.21	2.48	-48.43	2.72	-24.21	32.48
	L_9-L_{10}	-0.48	181.07	-4.51	-0.61	2.31	5.00	-40.66	-5.49	20.83	47.66
	L_9-L_{10}	41.44	78.72	0.00	0.00	-10.04	2.90	-53.97	122.13	-10.04	2.90
	L_9-L_{10}	-25.11	448.74	0.00	0.00	-12.56	168.12	0.00	0.00	-12.56	168.12
	L_9-L_{11}	425.89	-36.02	0.00	0.00	153.13	13.04	0.00	0.00	153.13	13.04
	L_9-L_{11}	150.02	-126.53	0.00	0.00	1.39	-1.04	0.00	0.00	12.49	-9.32
	L_9-L_{11}	120.44	-115.99	0.98	-4.52	6.03	-2.62	8.81	-40.63	54.26	-23.54
	L_9-L_{11}	89.08	-108.13	0.00	0.00	-6.01	2.61	6.19	-40.37	-20.66	10.89
	L_{10}-L_{11}	-45.24	-121.26	-2.78	-3.83	1.97	0.94	-25.05	-32.64	-17.68	8.42
	L_{10}-L_{11}	96.32	-264.98	-1.54	-17.48	1.60	1.01	13.89	-157.28	-14.40	9.60
	L_{10}-L_{11}	52.02	-64.08	-2.34	-4.49	0.31	0.08	-133.21	-40.06	-14.40	9.60
	L_{10}-L_{11}	-191.89	-319.35	-7.75	-8.23	0.71	0.26	-69.77	-74.10	6.38	2.36
	L_{10}-L_{11}	-339.58	-64.88	-8.95	-0.18	0.57	0.29	-69.77	-74.10	5.59	-2.60
	L_{10}-L_{12}	-154.59	-31.26	-4.45	-1.63	0.22	-0.20	-40.03	14.64	1.99	-1.82
	L_{10}-L_{12}	-215.80	145.76	-3.36	-5.97	0.22	-0.07	-30.28	81.75	-3.36	0.59
	L_{10}-L_{12}	-32.61	49.67	-3.62	1.66	-5.52	3.37	-32.61	14.87	-49.68	30.30
	L_{11}-L_{12}	-2.68	-185.02	3.45	-8.29	1.87	-5.16	31.05	-74.60	16.86	-46.46
	L_{11}-L_{12}	15.78	-249.23	7.97	-11.75	2.35	-7.25	18.43	-101.75	10.06	-62.75
	L_{11}-L_{12}	-4.23	-180.72	-0.79	-7.55	-0.24	1.66	-7.07	-67.93	-2.17	14.96
	L_{11}-L_{12}	-14.89	-68.38	-1.65	-2.68	-0.24	1.66	-14.89	-68.38	-1.65	14.96
	L_{11}-L_{12}	-252.85	-295.03	-8.73	-11.10	1.50	2.75	-78.61	-89.86	-13.51	24.71
	L_{11}-L_{12}	-479.08	-291.36	-13.81	-11.31	1.50	2.75	-47.05	-118.75	-11.31	-41.39
	L_{11}-L_{12}	-475.08	-292.18	-14.52	-17.55	4.28	4.35	-130.71	-157.94	-38.52	39.46
	L_{11}-L_{12}	-280.47	-64.51	-18.30	-5.86	3.56	6.30	-164.69	-52.77	32.08	56.66
	L_{11}-L_{12}	-292.36	219.74	-18.30	-5.86	3.56	6.30	-164.69	-52.77	32.08	56.66
	L_{11}-L_{12}	-225.83	141.30	-11.84	-6.20	3.14	6.00	-106.52	-1.78	28.24	53.99
	L_{11}-L_{12}	-201.52	229.05	-8.41	-1.75	4.49	3.69	-85.01	1.65	-44.87	27.46
	L_{11}-L_{13}	-160.03	387.16	0.50	3.36	-8.33	13.68	-49.46	30.21	-74.98	123.10
	L_{11}-L_{13}	-202.71	204.45	0.00	0.00	-2.63	-84.56	0.00	0.00	-23.63	-84.56
	L_{11}-L_{13}	-375.76	103.53	0.00	0.00	-2.63	-84.56	0.00	0.00	-23.63	-84.56
	L_{11}-L_{13}	1072.48	-412.35	0.00	0.00	37.66	-14.67	0.00	0.00	338.90	-132.01
	L_{11}-L_{13}	337.46	-47.37	0.00	0.00	3.04	1.18	0.00	0.00	27.34	10.66
	L_{12}-L_{13}	475.57	-49.03	0.00	0.00	15.18	-4.07	0.00	0.00	136.64	-36.59
	L_{12}-L_{13}	1.13	-28.76	0.00	0.00	0.01	-2.24	0.00	0.00	0.09	-20.14
	L_{12}-L_{13}	226.51	-41.81	-2.25	-6.06	4.68	3.17	-2.24	-54.57	-42.08	-28.56
	L_{12}-L_{13}	214.45	-56.43	-1.01	-7.68	2.58	4.63	-9.09	-69.10	-23.22	41.63
	L_{12}-L_{13}	49.27	-48.36	-0.38	-6.71	3.05	4.80	-44.99	-202.92	-28.35	43.24
	L_{12}-L_{13}	49.27	-202.49	-0.38	-16.71	3.15	4.80	-48.46	-150.42	28.35	43.24
	L_{12}-L_{13}	-197.10	24.93	-3.74	-1.62	0.00	0.00	-144.51	-7.35	-4.78	0.00
	L_{12}-L_{13}	-111.92	0.86	-9.08	-5.88	3.25	4.07	-81.68	-52.92	29.09	36.60
	L_{12}-L_{13}	-75.76	103.53	-8.79	-7.55	3.25	4.07	-81.68	-52.92	29.09	36.60
	L_{12}-L_{14}	-60.78	179.81	-6.58	-2.12	2.96	4.34	-59.21	19.04	26.67	39.70
	L_{12}-L_{14}	-81.80	266.56	-3.52	1.05	-8.20	6.99	31.71	9.41	-73.82	62.92
	L_{12}-L_{14}	24.08	113.39	0.00	0.00	-1.92	-11.22	0.00	0.00	-17.26	-100.99
	L_{12}-L_{14}	-99.81	-279.28	0.00	0.00	-1.92	-11.22	0.00	0.00	-17.26	-100.99
	L_{12}-L_{14}	-371.96	-1004.43	0.00	0.00	38.72	-14.91	0.00	0.00	348.49	-134.19
	L_{12}-L_{14}	1026.29	362.30	0.00	0.00	38.72	-14.91	0.00	0.00	348.49	-134.19
	L_{12}-L_{14}	-226.76	-125.36	0.00	0.00	-9.90	-2.69	0.00	0.00	-89.06	-24.25
	L_{12}-L_{14}	429.14	-114.29	0.00	0.00	-9.90	-2.69	0.00	0.00	-89.06	-24.25
	L_{12}-L_{14}	278.05	-132.91	1.76	-9.28	2.95	4.52	15.80	-83.54	26.59	44.32
	L_{12}-L_{14}	278.05	-132.91	1.76	-9.28	2.95	4.52	15.80	-83.54	26.59	44.32
	L_{13}-L_{14}	222.98	-243.21	-2.52	-8.75	3.71	4.12	-22.70	-78.74	33.36	37.09
	L_{13}-L_{14}	429.14	-114.29	-2.52	-8.75	3.71	4.12	-22.70	-78.74	33.36	37.09
	L_{13}-L_{14}	-167.98	-470.72	-17.29	-13.94	4.40	3.24	-155.09	-125.49	-39.56	29.16
	L_{13}-L_{14}	-445.06	-93.48	-14.44	-13.93	3.87	3.91	-129.99	-125.39	-34.87	8.23
	L_{13}-L_{14}	-291.76	-319.50	-4.70	-7.62	3.87	3.91	-129.99	-125.39	-34.87	8.23
	L_{13}-L_{14}	-392.27	38.30	-7.90	-1.51	1.87	-0.52	-71.14	-13.55	16.81	-4.68
	L_{13}-L_{14}	-392.27	38.30	-7.90	-1.51	1.87	-0.52	-68.24	-13.55	16.81	-4.68
	L_{13}-L_{14}	-297.04	199.10	-7.01	-1.58	1.16	-0.57	-63.08	14.19	10.46	-5.15
	L_{13}-L_{14}	-297.04	199.10	-7.01	-1.58	1.16	-0.57	-63.08	14.19	10.46	-5.15
	L_{14}-L_{15}	24.53	-109.42	0.14	0.28	3.04	-5.13	-1.26	2.51	37.38	-49.20
	L_{14}-L_{15}	-139.90	-177.77	2.23	-6.10	-0.32	0.71	20.07	-34.91	-2.90	6.35
	L_{14}-L_{15}	-115.57	-188.51	2.23	-6.10	-0.32	0.71	20.07	-34.91	-2.90	6.35
	L_{14}-L_{15}	47.96	-293.64	-0.50	-6.14	-0.24	0.96	-4.46	-73.29	-2.18	8.80
	L_{14}-L_{15}	47.96	-293.64	-0.50	-6.14	-0.24	0.96	-4.46	-73.29	-2.18	8.80
	L_{14}-L_{15}	-47.68	-343.07	-3.89	-16.66	0.26	1.80	-34.98	-140.91	-21.91	3.46
	L_{14}-L_{15}	-341.10	86.20	-13.45	-1.62	1.58	1.40	-121.03	-14.56	12.43	12.57
	L_{14}-L_{15}	-341.10	86.20	-13.45	-1.62	1.58	1.40	-121.03	-14.56	12.43	12.57
	L_{14}-L_{15}	-201.09	152.50	-7.19	-1.62	1.03	2.42	-64.73	14.61	9.23	21.75
	L_{14}-L_{15}	-201.09	152.50	-7.19	-1.62	1.03	2.42	-64.73	14.61	9.23	21.75
	L_{15}-L_{16}	-148.24	148.96	0.00	0.00	-1.23	1.50	0.00	0.00	-11.11	13.51
	L_{15}-L_{16}	-148.24	148.96	0.00	0.00	-1.23	1.50	0.00	0.00	-11.11	13.51
	L_{15}-L_{16}	-428.31	-26.46	0.00	0.00	18.65	-1.36	0.00	0.00	167.86	-12.28
	L_{15}-L_{16}	-428.31	-26.46	0.00	0.00	18.65	-1.36	0.00	0.00	167.86	-12.28
	L_{15}-L_{16}	70.66	-27.55	0.00	0.00	-0.22	-0.47	0.00	0.00	-1.95	-4.24
	L_{15}-L_{16}	70.66	-27.55	0.00	0.00	-0.22	-0.47	0.00	0.00	-1.95	-4.24
	L_{15}-L_{16}	194.48	-25.11	0.67	-9.55	3.48	3.00	2.65	-85.94	31.29	27.00
	L_{15}-L_{16}	194.48	-25.11	0.67	-9.55	3.48	3.00	2.65	-85.94	31.29	27.00
	L_{15}-L_{16}	-45.48	-80.88	-6.75	-7.31	2.14	0.74	-60.81	-65.76	19.30	6.64
	L_{15}-L_{16}	-45.48	-80.88	-6.75	-7.31	2.14	0.74	-60.81	-65.76	19.30	6.64
	L_{15}-L_{16}	-74.44	-5.53	0.00	0.00	-2.86	2.59	0.00	0.00	-25.71	23.31
Structure 3	L_{16}-L_{17}	-15.54	-19.33	2.73	-3.45	1.78	-2.35	24.57	-31.06	16.05	-21.19
	L_{16}-L_{17}	39.76	-67.96	-0.99	-6.31	-0.17	1.23	-8.92	-56.78	-1.30	-7.51
	L_{16}-L_{17}	19.39	-42.29	-0.32	-6.29	1.36	2.40	-47.66	-47.62	12.28	-21.58
	L_{16}-L_{17}	-11.34	11.55	-3.77	-12.17	1.25	3.99	-33.93	-109.51	11.28	35.87
	L_{17}-L_{18}	-49.11	208.03	-8.83	0.27	-24.21	2.48	-48.43	2.72	-24.21	32.48
	L_{17}-L_{18}	-0.48	181.07	-4.51	-0.61	2.31	5.00	-40.66	-5.49	20.83	47.66
	L_{17}-L_{18}	41.44	78.72	0.00	0.00	-10.04	2.90	-53.97	122.13	-10.04	2.90
	L_{17}-L_{18}	-25.11	448.74	0.00	0.00	-12.56	168.12	0.00	0.00	-12.56	168.12
	L_{17}-L_{19}	425.89	-36.02	0.00	0.00	153.13	13.04	0.00	0.00	153.13	13.04
	L_{17}-L_{19}	150.02	-126.53	0.00	0.00	1.39	-1.04	0.00	0.00	12.49	-9.32
	L_{17}-L_{19}	120.44	-115.99	0.98	-4.52	6.03	-2.62	8.81	-40.63	54.26	-23.54
	L_{17}-L_{19}	89.08	-108.13	0.00	0.00	-6.01	2.61	6.19	-40.37	-20.66	10.89
	L_{18}-L_{19}	-45.24	-121.26	-2.78	-3.83	1.97	0.94	-25.05	-32.64	-17.68	8.42
	L_{18}-L_{19}	96.32	-264.98	-1.54	-17.48	1.60	1.01	13.89	-157.28	-14.40	9.60
	L_{18}-L_{19}	52.02	-64.08	-2.34	-4.49	0.31	0.08	-133.21	-40.06	-14.40	9.60
	L_{18}-L_{19}	-191.89	-319.35	-7.75	-8.23	0.71	0.26	-69.77	-74.10	6.38	2.36
	L_{18}-L_{19}	-339.58	-64.88	-8.95	-0.18	0.57	0.29	-69.77	-74.10	5.59	-2.60
	L_{18}-L_{20}	-154.59	-31.26	-4.45	-1.63	0.22	-0.20	-40.03	14.64	1.99	-1.82
	L_{18}-L_{20}	-215.80	145.76	-3.36	-5.97	0.22	-0.07	-30.28	81.75	-3.36	0.59
	L_{18}-L_{20}	-32.61	49.67	-3.62	1.66	-5.52	3.37	-32.61	14.87	-49.68	30.30
	L_{19}-L_{20}	-2.68	-185.02	3.45	-8.29	1.87	-5.16	31.05	-74.60	16.86	-46.46
	L_{19}-L_{20}	15.78	-249.23	7.97	-11.75	2.35	-7.25	18.43	-101.75	10.06	-62.75
	L_{19}-L_{20}	-4.23	-180.72	-0.79	-7.55	-0.24	1.66	-7.07	-67.93	-2.17	14.96
	L_{19}-L_{20}	-14.89	-68.38	-1.65	-2.68	-0.24	1.66	-14.89	-68.38	-1.65	14.96
	L_{19}-L_{20}	-252.85	-295.03	-8.73	-11.10	1.50	2.75	-78.61	-89.86	-13.51	24.71
	$

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1998

* MCEB Table 6.6.2-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Min) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	U_1–L_1	-29.84	-49.00	0.83	-9.94	-1.74	2.76				
	U_1–L_2	-9.06	15.16	0.80	-0.84	-2.41	2.41				
	U_1–U_2	10.50	-9.71	0.90	-2.00	-2.46	2.46				
	U_2–L_2	33.43	-34.38	0.91	-1.11	-2.28	2.43				
	U_2–L_3	41.60	-62.42	0.00	0.00	16.56	-16.88				
	U_3–L_3	45.52	-51.05	0.00	0.00	4.14	-4.28				
	U_3–U_4	53.57	-55.55	0.00	0.00	1.46	-1.46				
	U_4–L_4	91.21	-101.85	0.00	0.00	5.12	-5.45				
	U_4–L_5	-20.53	21.18	0.00	0.31	-0.30					
	U_5–L_5	-135.19	151.61	0.00	0.00	-4.53	5.23				
	U_5–U_6	-88.41	88.14	0.00	0.00	-3.37	3.22				
	U_6–L_6	-91.02	123.95	0.00	0.00	-3.95	4.73				
	U_6–L_7	-79.50	78.32	0.00	0.00	-3.33	3.51				
	U_7–L_7	-49.20	60.09	0.00	0.00	-3.88	3.96				
	U_7–U_8	-29.72	34.60	0.00	0.00	-0.98	0.97				
	U_8–L_8	-1.46	-2.70	-0.47	0.52	3.07	-3.10				
	U_8–L_9	34.01	-36.57	-0.46	0.49	19.41	-21.44				
	U_9–L_9	46.21	-55.82	-0.32	0.33	2.98	-3.09				
	U_9–U_{10}	110.34	-114.53	-0.44	0.44	4.49	-4.70				
	U_{10}–L_{10}	-121.24	-131.09	-0.39	0.39	4.60	-4.79				
	U_{10}–L_{11}	-134.20	-173.18	-0.21	0.31	4.36	-5.28				
	U_{11}–L_{11}	-114.26	168.30	-1.16	-1.16	-1.26	4.75				
	U_{11}–L_{12}	-124.38	133.15	-1.16	-1.23	-4.79	5.26				
	U_{12}–L_{12}	-113.80	113.33	-1.36	-1.36	-4.63	5.07				
	U_{12}–L_{13}	-56.00	62.15	0.80	-0.84	-2.20	2.54				
	U_{13}–L_{13}	-34.04	39.78	0.80	-0.84	-0.89	0.89				
	U_{13}–L_{14}	-7.09	12.30	0.92	-0.96	-1.88	2.10				
	U_{14}–L_{14}	15.85	-15.58	0.76	-0.81	-1.77	1.83				
	U_{14}–L_{15}	38.85	-44.93	0.43	-0.46	-0.98	0.97				
	U_{15}–L_{15}	86.89	-96.05	0.00	0.00	3.92	-3.92				
	U_{15}–U_{16}	155.08	-164.45	0.00	0.00	3.99	-4.19				
	U_{16}–L_{16}	141.21	-149.39	0.00	0.00	5.17	-5.39				
	U_{16}–L_{17}	192.53	-192.81	0.00	0.00	4.28	-4.74				
	U_{17}–L_{17}	147.09	-146.79	0.00	0.00	3.77	-4.03				
	U_{17}–U_{18}	203.50	-203.15	0.00	-0.18	6.62	-6.74				
	U_{18}–L_{18}	192.02	-192.81	0.00	-0.02	6.62	-6.74				
	U_{18}–L_{19}	-159.87	162.82	1.08	-0.91	-6.75	6.72				
	U_{19}–L_{19}	-113.84	113.82	1.15	-1.15	-4.63	4.63				
	U_{19}–L_{20}	-130.37	127.18	0.66	-0.83	-7.62	7.53				
	U_{20}–L_{20}	-113.07	114.60	0.38	-0.72	-5.07	5.91				
	U_{20}–L_{21}	-67.70	67.44	-1.04	-1.04	-3.00	3.00				
	U_{21}–L_{21}	-44.77	46.58	0.00	0.00	-2.30	2.47				
	U_{21}–U_{22}	-30.30	34.99	0.00	0.00	-0.77	0.77				
	U_{22}–L_{22}	-3.79	4.34	0.00	0.00	0.07	-0.06				
	U_{22}–L_{23}	22.64	-25.70	-0.08	0.08	-1.11	1.11				
	U_{23}–L_{23}	39.94	-42.12	0.00	0.00	2.06	-2.31				
	U_{23}–L_{24}	88.55	-87.48	-0.10	0.16	3.67	-3.60				
	U_{24}–L_{24}	138.15	-138.56	-0.48	0.53	8.15	-8.15				
	U_{24}–L_{25}	138.22	-138.56	-0.48	0.53	8.15	-8.15				
	U_{25}–L_{25}	129.45	-129.74	-0.69	0.69	8.15	-8.15				
	U_{25}–L_{26}	173.80	-176.10	-0.07	-0.23	7.92	-7.83				
	U_{26}–L_{26}	124.53	-127.30	-0.12	-0.12	7.92	-7.83				
	U_{26}–L_{27}	-167.09	167.27	0.55	-0.52	-6.62	6.63				
	U_{27}–L_{27}	-116.04	109.89	0.47	-0.91	-5.58	5.10				
	U_{27}–L_{28}	-124.53	127.30	0.12	-0.12	-7.92	7.83				
	U_{28}–L_{28}	-119.83	124.38	0.00	0.00	-3.85	3.57				
	U_{28}–L_{29}	-79.51	79.29	0.00	0.00	-3.54	3.54				
	U_{29}–L_{29}	-79.51	88.86	0.00	0.00	-3.54	3.61				
	U_{29}–L_{30}	-43.96	51.93	0.00	0.00	0.00	0.01				
	U_{30}–L_{30}	-28.91	31.03	0.00	0.00	-1.27	1.27				
	U_{30}–L_{31}	-5.57	1.81	-1.00	1.04	1.82	-2.16				
	U_{31}–L_{31}	22.64	-25.70	-0.08	0.08	-1.11	1.11				
	U_{31}–L_{32}	55.25	-61.09	-0.78	0.80	2.87	-3.02				
	U_{32}–L_{32}	113.85	-122.73	-1.12	-1.12	4.60	-4.77				
	U_{32}–L_{33}	137.13	-150.74	-1.04	-1.05	4.96	-5.18				
	U_{33}–L_{33}	165.72	-206.83	-0.72	0.99	4.42	-5.82				
	U_{33}–L_{34}	113.85	-122.73	-1.12	-1.08	4.60	-4.77				
	U_{34}–L_{34}	-109.81	112.89	-0.60	-3.94	4.31	-4.23				
	U_{34}–L_{35}	-84.79	84.30	-0.63	-3.94	4.31	-4.23				
	U_{35}–L_{35}	-38.40	-66.11	-0.35	-0.37	-2.19	2.35				
	U_{35}–L_{36}	-28.91	-31.03	-0.84	-0.84	-1.27	1.27				
	U_{36}–L_{36}	-31.47	34.14	-0.42	-0.42	-0.97	0.97				
	U_{36}–L_{37}	-2.78	8.39	0.43	-0.48	-2.88	2.95				
	U_{37}–L_{37}	25.87	-28.68	0.00	0.00	1.09	-1.16				
	U_{37}–L_{38}	76.95	-76.96	0.00	0.00	3.16	-3.49				
	U_{38}–L_{38}	76.95	-76.96	0.00	0.00	3.16	-3.49				
	U_{38}–L_{39}	94.22	-125.87	0.00	0.00	4.84	-5.68				
Structure 2	U_{39}–L_{39}	92.27	-95.87	0.00	0.00	3.88	-3.97				
	U_{39}–L_{40}	142.63	-166.19	0.00	0.00	5.14	-5.97				
	U_{40}–L_{40}	37.52	-58.80	0.00	0.00	1.11	-2.01				
	U_{40}–L_{41}	-81.19	89.90	0.00	0.00	-4.11	4.38				
	U_{41}–L_{41}	-48.49	45.44	0.00	0.00	-3.04	3.09				
	U_{41}–L_{42}	-38.99	42.96	0.00	0.00	-3.83	3.53				
	U_{42}–L_{42}	-38.90	40.31	0.00	0.00	-1.63	1.73				
	U_{42}–L_{43}	-37.48	38.73	-1.02	1.19	2.42	-2.52				
	U_{43}–L_{43}	-10.29	11.13	-1.07	1.18	1.80	-2.36				
	U_{43}–L_{44}	3.53	-11.97	-0.88	0.84	3.57	-3.44				
	U_{44}–L_{44}	44.79	-53.89	-0.50	0.77	2.37	-3.04				
Structure 3											

ZZ Axis Moment Properties

Location	Member	Max. Pos. Mom. Start (k-in)	Max. Pos. Mom. End (k-in)	S_{top} (in^3)	S_b (in^3)	Z_z (in^3)	J (in^4)	I_{zz} (in^4)	Shape Factor f	M_p (k-in)	Formula 1.8 Term * F/S_{bc}	M_n (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor $C_{b(a)}$	Equivalent Mom. Factor $C_{b(b)}$
Structure 1	U_1–L_1	-22.63	65.31	72.63	117.58	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_1–L_2	3.76	3.27	-58.85	66.76	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_1–U_2	31.78	-33.81	-20.75	35.04	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_2–L_2	61.20	-66.24	-9.99	2.79	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_2–L_3	54.09	-54.09	0.00	0.00	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_3–L_3	69.17	-66.37	139.98	-149.75	19.4	19.37	19.31	29.87	3	907.0	1.54	986	1.5	958.8
	U_3–U_4	72.24	-72.24	-12.82	-141.64	21.8	20.80	20.67	34.66	4	1076.0	1.67	1144	1.5	1029.6
	U_4–L_4	118.58	-132.40	218.46	-238.71	18.5	18.45	18.36	30.78	7	1020.9	1.67	1016	1.5	913.3
	U_4–L_5	26.68	37.53	-20.74	21.62	107.1	107.13	107.11	162.71	26	2056.9	1.52	5369	1.5	5302.3
	U_5–L_5	175.70	202.93	-264.08	304.38	32.1	32.11	32.11	54.51	14	1408.8	1.65	1929	1.5	1758.2
	U_5–U_6	114.93	114.09	-160.69	177.38	35.5	35.52	35.44	58.46	14	1309.7	1.65	1929	1.5	1758.2
	U_6–L_6	179.34	183.17	-190.45	263.06	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6
	U_6–L_7	103.36	101.81	-168.35	170.20	21.1	21.09	21.09	35.46	10	1137.6	1.68	1170	1.5	1044.0
	U_7–L_7	63.96	78.12	-139.56	155.75	17.2	17.24	17.24	28.54	2	824.7	1.54	876	1.5	853.4
	U_7–U_8	38.64	34.87	-69.23	74.84	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_8–L_8	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_8–L_9	11.14	6.62	57.91	-63.90	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_9–L_9	35.53	-38.78	84.46	-93.99	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_9–U_{10}	53.76	66.08	118.21	-132.85	19.4	19.37	19.37	29.87	3	907.0	1.54	986	1.5	958.8
	U_{10}–L_{10}	134.53	140.27	231.07	-240.46	33.1	33.09	33.09	53.51	14	1187.1	1.65	1799	1.5	1636.0
	U_{10}–L_{11}	150.07	182.91	247.32	-263.68	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6
	U_{11}–L_{11}	170.29	219.03	259.44	-328.07	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6
	U_{11}–L_{12}	125.56	192.48	232.16	-316.14	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6
	U_{12}–L_{12}	139.04	149.08	-259.09	275.75	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1
	U_{12}–L_{13}	111.60	82.63	-182.32	194.03	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1
	U_{13}–L_{13}	7.16	-7.52	-20.74	22.83	21.5	21.54	21.54	33.27	5	987.9	1.54	1098	1.5	1066.2
	U_{13}–L_{14}	2.29	-2.29	-20.74	22.83	21.5	21.54	21.54	33.27	5	987.9	1.54	1098	1.5	1066.2
	U_{14}–L_{14}	-7.09	12.30	0.92	-0.96	-1.88	2.10				
	U_{14}–L_{15}	15.85	-15.58	0.76	-0.81	-1.77	1.83				
	U_{15}–L_{15}	38.85	-44.93	0.43	-0.46	-0.98	0.97				
	U_{15}–U_{16}	86.89	-96.05	0.00	0.00	3.92	-3.92				
	U_{16}–L_{16}	155.08	-164.45	0.00	0.00	3.99	-4.19				
	U_{16}–L_{17}	141.21	-149.39	0.00	0.00	5.17	-5.39				
	U_{17}–L_{17}	192.53	-192.81	0.00	0.00	4.28	-4.74				
	U_{17}–L_{18}	147.09	-146.79	0.00	0.00	3.77	-4.03				
	U_{18}–L_{18}	203.50	-203.15	0.00	-0.18	6.62	-6.74				
	U_{18}–L_{19}	192.02	-192.81	0.00	-0.02	6.62	-6.74				
	U_{19}–L_{19}	-159.87	162.82	1.08	-0.91	-6.75	6.72				
	U_{19}–L_{20}	-113.84	113.82	1.15	-1.15	-4.63	4.63				
	U_{20}–L_{20}	-130.37	127.18	0.66	-0.83	-7.62	7.53				
	U_{20}–L_{21}	-113.07	114.60	0.38	-0.72	-5.07	5.91				
	U_{21}–L_{21}	-67.70	67.44	-1.04	-1.04	-3.00	3.00				
	U_{21}–U_{22}	-44.77	46.58	0.00	0.00	-2.30	2.47				
	U_{22}–L_{22}	-30.30	34.99	0.00	0.00	-0.77	0.77				
	U_{22}–L_{23}	-3.79	4.34	0.00	0.07	-0.06					
	U_{23}–L_{23}	22.64	-25.70	-0.08	0.08	-1.11	1.11				
	U_{23}–L_{24}	39.94	-42.12	0.00	0.00	2.06	-2.31				
	U_{24}–L_{24}	88.55	-87.48	-0.10	0.16	3.67	-3.60				
	U_{24}–L_{25}	138.15	-138.56	-0.48	0.53	8.15	-8.15				
	U_{25}–L_{25}	138.22	-138.56	-0.48	0.53	8.15	-8.15				
	U_{25}–L_{26}	129.45	-129.74	-0.69	0.69	8.15	-8.15				
	U_{26}–L_{26}	173.80	-176.10	-0.07	-0.23	7.92	-7.83				
	U_{26}–L_{27}	124.53	-127.30	-0.12	-0.12	7.92	-7.83				
	U_{27}–L_{27}	-167.09	167.27	0.55	-0.52	-6.62	6.63				
	U_{27}–L_{28}	-116.04	109.89	0.47	-0.91	-5.58	5.10				
	U_{28}–L_{28}	-124.53	127.30	0.12	-0.12	-7.92	7.83				
	U_{28}–L_{29}	-119.83	124.38	0.00	0.00	-3.85	3.57				
	U_{29}–L_{29}	-79.51	79.29	0.00	0.00	-3.54	3.54				
	U_{29}–L_{30}	-79.51	88.86	0.00	0.00	-3.54	3.61				
	U_{30}–L_{30}	-43.96	51.93	0.00	0.00	0.00	0.01				
	U_{30}–L_{31}	-28.91	31.03	-0.84	-0.84	-1.27	1.27				
	U_{31}–L_{31}	-5.57	1.81	-1.00	1.04	1.82	-2.16				
	U_{31}–L_{32}	22.64	-25.70	-0.08	0.08	-1.11	1.11				
	U_{32}–L_{32}	55.25	-61.09	-0.78	0.80	2.87	-3.02				
	U_{32}–L_{33}	113.85	-122.73	-1.12	-1.12	4.60	-4.77				
	U_{33}–L_{33}	137.13	-150.74	-1.04	-1.05	4.96	-5.18				
	U_{33}–L_{34}	165.72	-206.83	-0.72	0.99	4.42	-5.82				
	U_{34}–L_{34}	113.85	-122.73	-1.12	-1.08	4.60	-4.77				
	U_{34}–L_{35}	-109.81	112.89	-0.60	-3.94	4.31	-4.23				
	U_{35}–L_{35}	-84.79	84.30	-0.63	-3.94	4.31	-4.23				
	U_{35}–L_{36}	-38.40	-66.11	-0.35	-0.37	-2.19	2.35				
	U_{36}–L_{36}	-28.91	-31.03	-0.84	-0.84	-1.27	1.27				
	U_{36}–L_{37}	-31.47	34.14	-0.42	-0.42	-0.97	0.97				
	U_{37}–L_{37}	-2.78	8.39	0.43	-0.48	-2.88	2.95				
	U_{37}–L_{38}	25.87	-28.68	0.00	0.00	1.09	-1.16				
	U_{38}–L_{38}	76.95	-76.96	0.00	0.00	3.16	-3.49				
	U_{38}–L_{39}	94.22	-125.87	0.00	0.00	4.84	-5.68				
	U_{39}–L_{39}	92.27	-95.87	0.00	0.00	3.88	-3.97				
	U_{39}–L_{40}	142.63	-166.19	0.00	0.00	5.14	-5.97				
	U_{40}–L_{40}	37.52	-58.80	0.00	0.00	1.11	-2.01				
	U_{40}–L_{41}	-81.19	89.90	0.00	0.00	-4.11	4.38				
	U_{41}–L_{41}	-48.49	45.44	0.00	0.00	-3.04	3.09				
	U_{41}–L_{42}	-38.99	42.96	0.00	0.00	-3.83	3.53				
	U_{42}–L_{42}	-38.90	40.31	0.00	0.00	-1.63	1.73				
	U_{42}–L_{43}	-37.48	38.73	-1.02	1.19	2.42	-2.52				
	U_{43}–L_{43}	-10.29	11.13	-1.07	1.18	1.80	-2.36				
	U_{43}–L_{44}	3.53	-11.97	-0.88	0.84	3.57	-3.44				
	U_{44}–L_{44}	44.79	-53.89	-0.50	0.77	2.37	-3.04				
Structure 3											

YY Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Min) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	U_1–L_1	0.00	0.00	43.56	-51.10	0.00	0.00	0.00	0.00	0.00	0.00
	U_1–L_2	0.00	0.00	34.92	-35.69	0.00	0.00	0.00	0.00	0.00	0.00
	U_1–U_2	0.00	0.00	119.90	-134.63	190.01	-261.96	36.5	35.52	39.44	58.46
	U_2–L_2	0.00	0.00	61.20	-66.24	-9.99	2.79	15.4	15.42	15.42	23.71
	U_2–L_3	0.00	0.00	54.09	-54.09	0.00	0.00	15.4	15.42	15.42	23.71
	U_3–L_3	0.00	0.00	69.17	-66.37	139.98	-149.75	19.4	19.37	19.31	29.87
	U_3–U_4	0.00	0.00	72.24	-72.24	-12.82	-141.64	21.8	20.80	20.67	34.66
	U_4–L_4	0.00	0.00	118.58	-132.40	218.46	-238.71	18.5	18.45	18.36	30.78
	U_4–L_5	0.00	0.00	26.68	37.53	-20.74	21.62	107.1	107.13	107.11	162.71
	U_5–L_5	0.00	0.00	175.70	202.93	-264.08	304.38	32.1	32.11	32.11	54.51
	U_5–U_6	0.00	0.00	-114.93	114.09	-160.69	177.38	35.5	35.52	35.44	58.46
	U_6–L_6	0.00	0.00	179.34	183.17	-190.45	263.06	42.7	42.74	42.74	65.30
	U_6–L_7	0.00	0.00	-103.36	101.81	-168.35	170.20	21.1	21.09	21.09	35.46
	U_7–L_7	0.00	0.00	-63.96	78.12	-139.56	155.75	17.2	17.24	17.24	28.54
	U_7–U_8	0.00	0.00	-38.64	34.87	-69.23	74.84	15.4	15.42	15.42	23.71
	U_8–L_8	0.00	0.00	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71
	U_8–L_9	0.00	0.00	-11.14	6.62	57.91	-63.90	15.4	15.42	15.42	23.71
	U_9–L_9	0.00	0.00	-35.53	-38.78	84.46	-93.99	15.4	15.42	15.42	23.71
	U_9–U_{10}	0.00	0.00	-53.76	66.08	118.21	-132.85	19.4	19.37	19.37	29.87
	U_{10}–L_{10}	0.00	0.00	-134.53	140.27	231.07	-240.46	33.1	33.09	33.09	53.51
	U_{10}–L_{11}	0.00	0.00	-150.07	182.91	247.32	-263.68	42.7	42.74	42.74	65.30
	U_{11}–L_{11}	0.00	0.00	-170.29	219.03	259.44	-328.07	42.7	42.74	42.74	65.30
	U_{11}–L_{12}	0.00	0.00	-125.56	192.48	232.16	-316.14	42.7	42.74	42.74	65.30
	U_{12}–L_{12}	0.00	0.00	-139.04	149.08	-259.09	275.75	46.7	46.71	46.71	71.43
	U_{12}–L_{13}	0.00	0.00	-111.60	82.63	-182.32	194.03	46.7	46.71	46.71	71.43
	U_{13}–L_{13}	0.00	0.00	-7.16	7.52	-20.74	22.83	21.5	21.54	21.54	33.27
	U_{13}–L_{14}	0.00	0.00	-2.29	2.29	-20.74	22.83	21.5	21.54	21.54	33.27
	U_{14}–L_{14}	0.00	0.00	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71
	U_{14}–L_{15}	0.00	0.00	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71
	U_{15}–L_{15}	0.00	0.00	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71
	U_{15}–U_{16}	0.00	0.00	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71
	U_{16}–L_{16}	0.00	0.00	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71
	U_{16}–L_{17}	0.00	0.00	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71
	U_{17}–L_{17}	0.00	0.00	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71
	U_{17}–U_{18}	0.00	0.00	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71
	U_{18}–L_{18}	0.00	0.00	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71
	U_{18}–L_{19}	0.00	0.00	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71
	U_{19}–L_{19}	0.00	0.00	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71
	U_{19}–L_{20}	0.00	0.00	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71
	U_{20}–L_{20}	0.00	0.00	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71
	U_{20}–L_{21}	0.00	0.00	0.00	0.00	0.

Axial - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors: DL Factor= 1.30, LL Factor= 2.17
Pedestrian Load Factors: DL Factor= 1.30, LL Factor= 1.80

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	U_1~L_1	-12.55	3.37	0.44	0.47	0.39	-0.24	-3.98	4.26	3.53	-2.13
	L_1~L_2	-1.68	-7.06	-9.96	0.35	0.32	-0.39	-8.86	3.15	2.87	-0.78
	L_2~L_3	-4.77	0.65	-8.37	-8.96	0.21	-0.13	-7.72	1.88	1.85	-1.39
	U_1~L_2	9.78	-11.75	-0.88	-0.93	0.01	-0.37	-7.92	-8.35	0.13	-3.29
	L_2~U_2	-10.32	17.59	-7.47	-0.99	0.00	0.00	-42.92	29.96	22.07	0.00
	U_2~L_3	-26.82	58.45	-2.05	3.51	0.00	0.00	-74.78	144.45	-34.87	75.99
	L_3~U_3	-39.76	82.24	-4.02	3.80	0.00	0.00	-96.48	51.52	1.06	0.00
	U_3~L_4	-6.36	88.83	-1.00	4.28	0.00	0.00	-9.02	38.48	0.00	0.00
	L_4~U_4	-9.60	109.51	0.27	3.74	0.86	0.45	-21.37	29.50	0.00	7.05
	U_4~L_5	-74.77	161.04	2.27	4.85	2.39	1.25	-21.37	29.50	0.00	7.05
	L_5~U_5	-56.82	54.75	-1.56	2.29	0.00	0.00	-14.08	20.60	0.00	0.00
	U_5~L_6	-56.82	54.75	-1.56	2.29	0.00	0.00	-20.30	29.52	0.00	0.00
	L_6~U_6	-55.23	39.04	-2.16	2.10	0.00	0.00	-19.47	18.86	0.00	0.00
	U_6~L_7	-20.96	7.36	-1.52	0.30	0.00	0.00	-13.72	2.70	0.00	0.00
	L_7~U_7	-1.16	1.16	-0.25	0.25	0.00	0.00	-0.18	0.18	0.00	0.00
	U_1~L_2	-19.01	4.12	1.34	1.06	0.24	-0.21	-12.07	9.57	7.18	-1.86
	L_2~U_3	-24.33	0.22	-1.56	-1.21	0.23	-0.20	-17.54	12.90	2.08	-1.77
	U_3~L_3	-69.28	58.13	-3.36	2.80	0.34	-0.29	-30.25	25.16	3.04	-2.65
	L_3~U_4	-39.21	61.35	-3.31	3.31	0.23	-0.20	-29.76	23.15	2.08	-2.08
	U_4~L_4	-105.04	88.64	-3.39	2.94	0.17	-0.18	-30.01	28.44	1.54	-1.65
	L_4~U_5	-82.69	87.74	-4.26	3.95	0.94	-0.89	-38.30	35.51	8.48	-7.97
	U_5~L_5	-82.69	87.74	-4.26	3.95	0.94	-0.89	-38.30	35.51	8.48	-7.97
	L_5~U_6	-61.28	63.04	-3.56	2.67	0.04	-0.85	-32.23	24.05	9.39	-7.68
	U_6~L_6	-61.28	63.04	-3.56	2.67	0.04	-0.85	-16.78	11.77	3.94	-2.95
	L_6~U_7	-17.30	7.01	-1.38	0.59	0.52	-0.43	-12.41	8.87	4.64	-3.83
	U_7~L_7	-1.62	-1.45	-1.13	0.98	0.42	-0.32	-0.25	0.25	0.00	0.00
	U_1~L_2	-7.42	-23.91	-0.91	-0.11	0.36	-0.69	-8.22	-0.99	3.25	6.19
	L_2~U_3	-44.31	35.87	-2.13	0.82	0.00	0.00	-19.17	7.34	0.00	0.00
	U_3~L_3	-56.38	68.64	-3.25	-29.28	20.41	0.00	-24.29	29.61	0.00	0.00
	L_3~U_4	-88.54	73.82	-3.61	1.78	0.00	0.00	-32.01	18.04	0.00	0.00
	U_4~L_4	-87.45	92.33	-3.69	2.75	0.00	0.00	-33.17	24.54	0.00	0.00
	L_4~U_5	-108.36	116.66	-4.38	4.25	0.00	0.00	-39.38	38.27	0.00	0.00
	U_5~L_5	-154.28	139.69	-5.27	4.83	0.48	-0.18	-47.47	43.50	4.28	-1.69
	L_5~U_6	-74.70	74.70	-3.99	3.99	1.26	-0.79	-14.41	35.90	11.33	-7.07
	U_6~L_6	-74.70	100.99	-1.60	3.99	1.26	-0.79	-14.41	35.90	11.33	-7.07
	L_6~U_7	-68.29	59.74	-3.64	3.19	0.42	-0.33	-42.08	38.58	10.22	-8.33
	U_7~L_7	-74.15	95.51	-4.40	5.00	0.85	-0.37	-39.62	45.03	7.64	-3.35
	U_1~L_2	-66.85	66.85	-4.40	5.00	0.85	-0.37	-39.75	45.03	7.64	-3.35
	L_2~U_3	-55.45	68.85	-2.68	2.18	0.69	0.20	-24.09	19.58	6.20	1.80
	U_3~L_3	-32.97	39.97	-2.11	1.63	0.35	0.20	-18.97	14.68	3.16	1.77
	L_3~U_4	-28.24	31.05	-1.86	1.62	0.35	0.20	-16.24	12.84	3.16	1.77
	U_4~L_4	-10.33	4.39	-1.39	0.00	0.04	-0.42	-12.49	0.01	0.39	-3.82
	L_4~U_5	-29.51	24.80	-2.38	1.96	0.00	0.00	-11.40	7.25	0.00	0.00
	U_5~L_5	-17.07	16.19	-1.44	1.19	0.21	0.07	-7.07	5.15	1.85	0.67
	L_5~U_6	-29.51	24.80	-2.38	1.96	0.00	0.00	-21.48	14.62	0.00	0.00
	U_6~L_6	-55.66	65.11	-3.14	2.58	0.63	0.25	-28.23	23.18	5.67	2.27
	L_6~U_7	-69.18	80.37	-4.46	3.99	0.58	0.08	-40.16	35.93	5.19	0.73
	U_7~L_7	-106.02	102.50	-6.30	4.70	0.52	-0.46	-47.73	42.27	4.69	-4.14
	U_1~L_2	-98.29	98.29	-6.30	4.70	0.52	-0.46	-47.73	42.27	4.69	-4.14
	L_2~U_3	-47.57	127.97	-2.01	4.86	1.19	-0.55	-18.52	52.49	10.75	4.99
	U_3~L_3	-89.45	99.26	-4.30	4.17	0.64	0.22	-38.68	37.49	5.73	1.94
	L_3~U_4	-86.48	82.53	-3.31	2.13	0.62	0.55	-29.61	19.15	5.57	4.92
	U_4~L_4	-74.78	82.27	-3.31	2.13	0.62	0.55	-18.68	19.15	5.57	4.92
	L_4~U_5	-50.13	67.65	-3.12	2.13	0.00	0.00	-28.05	19.15	0.00	0.00
	U_5~L_5	-50.13	67.65	-3.12	2.13	0.00	0.00	-28.05	19.15	0.00	0.00
	L_5~U_6	-12.59	-26.40	-1.05	-0.01	0.22	-0.57	-9.40	-0.05	-4.01	-34.41
	U_6~L_6	-6.51	-17.79	-1.24	0.80	0.56	-0.39	-11.20	7.20	5.02	-3.54
	L_6~U_7	-11.68	0.88	-1.44	0.00	0.00	-0.42	-6.50	0.00	2.82	-3.89
	U_7~L_7	-38.91	20.55	-2.21	1.80	0.60	-0.50	-19.91	16.16	5.42	-4.51
	U_1~L_2	-38.91	20.55	-2.21	1.80	0.60	-0.50	-19.91	16.16	5.42	-4.51
	L_2~U_3	-68.49	71.54	-3.69	3.07	0.80	-0.68	-33.17	27.63	7.21	-6.09
	U_3~L_3	-68.49	71.54	-3.69	3.07	0.80	-0.68	-33.17	27.63	7.21	-6.09
	L_3~U_4	-70.17	69.10	-4.04	3.18	0.39	-0.33	-36.38	28.61	3.54	-2.97
	U_4~L_4	-70.17	69.10	-4.04	3.18	0.39	-0.33	-36.38	28.61	3.54	-2.97
	L_4~U_5	-86.86	56.37	-3.03	2.23	0.39	-0.29	-27.35	20.11	3.52	-2.64
	U_5~L_5	-86.86	52.05	-3.03	2.23	0.39	-0.29	-27.35	20.11	3.52	-2.64
	L_5~U_6	-54.59	58.66	-3.32	3.34	0.00	0.00	-29.98	30.02	0.00	0.00
	U_6~L_6	-54.59	58.66	-3.32	3.34	0.00	0.00	-29.98	30.02	0.00	0.00
	L_6~U_7	-9.16	17.57	-1.44	0.28	0.00	0.00	-12.99	2.52	0.00	0.00
	U_7~L_7	-8.12	-8.77	-0.90	0.23	0.45	-0.11	-6.51	0.38	2.74	-0.69
	U_1~L_2	-8.12	-8.77	-0.90	0.23	0.45	-0.11	-6.51	0.38	2.74	-0.69
	L_2~U_3	-23.22	7.61	-0.62	0.69	0.14	-0.13	-5.54	6.18	1.22	-1.01

Location	Member	Max. Pos. Mom. Start (k-in)	Max. Pos. Mom. End (k-in)	S_{top} (in^3)	S_b (in^3)	Z_z (in^3)	I_z (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F/S_{bc}	M_z (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor C_{m2x}	Equivalent Mom. Factor C_{m3x}
Structure 1	U_1~L_1	-24.94	13.61	-8.67	-0.24	15.6	19.63	15.58	25.96	5	804.0	1.66	.857	1.5
	L_1~L_2	-21.37	-2.35	4.04	-10.87	15.4	15.42	15.42	23.71	2	751.9	1.54	.782	1.5
	L_2~L_3	-16.78	-8.81	-13.89	15.4	15.42	15.42	15.42	23.71	2	751.9	1.54	.782	1.5
	U_1~L_2	-4.45	-33.37	12.98	-22.41	15.4	15.42	15.42	23.71	2	751.9	1.54	.782	1.5
	L_2~U_2	-42.92	29.96	22.07	0.00	15.4	19.37	19.37	29.87	4	907.0	1.54	.782	1.5
	U_2~L_3	-74.78	144.45	-34.87	75.99	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5
	L_3~U_3	-96.48	51.52	1.06	0.00	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5
	U_3~L_4	-9.02	38.48	0.00	0.00	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5
	L_4~U_4	-21.37	29.50	0.00	7.05	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5
	U_4~L_5	-14.08	20.60	0.00	0.00	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5
	L_5~U_5	-20.30	29.52	0.00	0.00	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5
	U_5~L_6	-19.47	18.86	0.00	0.00	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5
	L_6~U_6	-13.72	2.70	0.00	0.00	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5
	U_6~L_7	-1.16	1.16	0.00	0.00	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5
	U_1~L_2	-12.07	9.57	7.18	-1.86	15.4	15.42	15.42	23.71	2	751.9	1.54	.782	1.5
	L_2~U_3	-17.54	12.90	2.08	-1.77	15.4	15.42	15.42	23.71	2	751.9	1.54	.782	1.5
	U_3~L_3	-30.25	25.16	3.04	-2.65	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5
	L_3~U_4	-29.76	23.15	2.08	-2.08	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5
	U_4~L_4	-30.01	28.44	1.54	-1.65	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5
	L_4~U_5	-38.30	35.51	8.48	-7.97	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5
	U_5~L_5	-38.30	35.51	8.48	-7.97	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5
	L_5~U_6	-32.23	24.05	9.39	-7.68	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5
	U_6~L_6	-16.78	11.77	3.94	-2.95	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5
	L_6~U_7	-12.41	8.87	4.64	-3.83	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_7~L_7	-0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_1~L_2	-8.22	-0.99	3.25	6.19	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_2~U_3	-19.17	7.34	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_3~L_3	-24.29	29.61	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_3~U_4	-32.01	18.04	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_4~L_4	-33.17	24.54	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_4~U_5	-39.38	38.27	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_5~L_5	-47.47	43.50	4.28	-1.69	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_5~U_6	-14.41	35.90	11.33	-7.07	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_6~L_6	-14.41	35.90	11.33	-7.07	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_6~U_7	-42.08	38.58	10.22	-8.33	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_7~L_7	-39.62	45.03	7.64	-3.35	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_1~L_2	-39.75	45.03	7.64	-3.35	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_2~U_3	-24.09	19.58	6.20	1.80	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_3~L_3	-18.97	14.68	3.16	1.77	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_3~U_4	-16.24	12.84	3.16	1.77	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_4~L_4	-12.49	0.01	0.39	-3.82	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_4~U_5	-11.40	7.25	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_5~L_5	-7.07	5.15	1.85	0.67	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_5~U_6	-21.48	14.62	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_6~L_6	-28.23	23.18	5.67	2.27	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_6~U_7	-40.16	35.93	5.19	0.73	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_7~L_7	-47.73	42.27	4.69	-4.14	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_1~L_2	-47.73	42.27	4.69	-4.14	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_2~U_3	-18.52	52.49	10.75	4.99	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_3~L_3	-38.68	37.49	5.73	1.94	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_3~U_4	-29.61	19.15	5.57	4.92	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_4~L_4	-18.68	19.15	5.57	4.92	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_4~U_5	-28.05	19.15	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_5~L_5	-28.05	19.15	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_5~U_6	-9.40	-0.05	-4.01	-34.41	20.64	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_6~L_6	-11.20	7.20	5.02	-3.54	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_6~U_7	-6.50	0.00	2.82	-3.89	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_7~L_7	-19.91	16.16	5.42	-4.51	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_1~L_2	-19.91	16.16	5.42	-4.51	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_2~U_3	-33.13	27.63	7.21	-6.09	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_3~L_3	-33.17	27.63	7.21	-6.09	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_3~U_4	-36.38	28.61	3.54	-2.97	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_4~L_4	-36.38	28.61	3.54	-2.97	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_4~U_5	-27.35	20.11	3.52	-2.64	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_5~L_5	-27.35	20.11	3.52	-2.64	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_5~U_6	-29.98	30.02	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_6~L_6	-29.98	30.02	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_6~U_7	-12.99	2.52	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_7~L_7	-6.51	0.38	2.74	-0.69	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	U_1~L_2	-6.51	0.38	2.74	-0.69	0.00	0.00	0.00	0.00	0	0.0	1.00	0	1.0
	L_2~U_3	-5.54	6.18	1.22	-1.01	15.4	15.42	15.42	23.71	2	751.9	1.54	.782	1.5

YY Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	U_1~L_1	-40.28	-19.43	2.73	2.19	0.00	0.00	0.00	0.00	-155.91	-87.24
	L_1~L_2	-25.25	-16.61	10.21	9.17	0.00	0.00	0.00	0.00	-95.63	-74.95
	L_2~L_3	-27.17	-27.66	3.07	0.27	0.00	0.00	0.00	0.00	-108.59	-163.60
	U_1~L_2	-27.74	-27.07	5.45	3.06	0.00	0.00	0.00	0.00	-176.71	-107.20
	L_2~U_2	-7.36	-1.14	-0.60	-0.62	-0.13	0.33	85.30	15.26	-9.62	-6.55
	U_2~L_3	0.13	-2.50	0.02	0.51	-0.28	0.00	0.00	0.00	189.19	90.68
	L_3~U_3	-13.34	-28.07	0.00	0.00	0.00	0.00	0.00	0.00	325.16	144.48
	U_3~L_4	-11.22	-5.74	0.00	0.00	0.00	0.00	0.00	0.00	267.43	189.49
	L_4~U_4	26.64	21.54	-0.69	-2.97	0.00	0.00	0.00	0.00	200.23	181.56
	U_4~L_5	26.75	20.83	0.00	0.00	0.00	0.00	0.00	0.00	147.19	168.67
	L_5~U_5	5.79	1.37	0.00	0.00	0.00	0.00	0.00	0.00	40.53	-66.15
	U_5~L_6	5.79	1.37	0.00	0.00	0.00	0.00	0.00	0.00	40.53	-66.15
	L_6~U_6	1389.6	1.53	2155	1.5	2115.6	-0.023	0.39	0.00	-147.97	-125.46
	U_6~L_7	1389.6	1.53	2155	1.5	2115.6	-0.023	0.39	0.00	-8.71	-14.63
	U_1~L_2	-20.73	-21.65	0.00	0.00	0.00	0.00	0.00	0.00	-274.39	-242.77
	L_2~U_3	-17.52	-21.57	0.00	0.00	0.00	0.00	0.00	0.00	-247.49	-254.75
	U_3~L_3	-67.68	-136.49	-2.50	-1.18	0.53	0.78	0.00	0.00	-117.81	-207.92
	L_3~U_4	-140.03	-172.09	43.53	-106.40	94.0	93.99	93.99	104.66	65.3	111.44
	U_4~L_4	-23.09	-21.65	0.00	0.00	0.00	0.00	0.00	0.00	-274.39	-242.77
	L_4~U_5	-37.52	-23.17	-2.22	1.39	0.00	0.00	0.00	0.00	-60.57	-153.66
	U_5~L_5	-68.22	-20.32	4.25	-2.41	-0.41	-0.38	0.00	0.00	-60.18	-18.74
	L_5~U_6	-60.48	-17.86	13.19	3.32	0.00	0.00	0.00	0.00	-139.19	-137.67
	U_6~L_6	-50.73	-26.57	1.06	3.86	0.00	0.00	0.00	0.00	-243.68	-24.33
	L_6~U_7	-85.80	-14.63	0.00	0.00	0.00	0.00	0.00	0.00	-159.83	-80.74
	U_1~L_2	-51.84	-2.57	4.46	-3.05	0.00	0.00	0.00	0.00	-207.04	-169.12
	L_2~U_3	-26.74	-9.87	0.00	0.00	0.00	0.00	0.00	0.00	-177.76	-162.52
	U_3~L_3	-24.06	-26.69	8.35	8.37	0.00	0.00	0.00	0.00	-267.89	-219.64
	L_3~U_4	-29.53	-22.90	1.83	1.42	0.00	0.00	0.00	0.00	-298.20	-215.01
	U_4~L_4	-12.73	-69.10	33.79	19.81	0.00	0.00	0.00	0.00	-241.77	-320.58
	L_4~U_5	-31.23	-18.09	0.00	0.00	0.00	0.00	0.00	0.00	-93.25	-152.45
	U_5~L_5	-41.81	-50.53	0.00	0.00	0.00	0.00	0.00	0.00	-73.32	-177.56
	L_5~U_6	-12.65	-85.10	0.00	0.00	0.00	0.00	0.00	0.00	18.61	-203.54
	U_6~L_6	-25.61	-85.10	0.00	0.00	0.00	0.00	0.00	0.00	89.17	-203.54
	L_6~U_7	7.78	8.96	0.00	0.00	0.00	0.00	0.00	0.00	231.96	134.66
	U_1~L_2	19.02	12.44	19.71	8.32	0.00	0.00	0.00	0.00	297.62	169.73
	L_2~U_3	26.10	12.44	19.71	8.32	0.00	0.00	0.00	0.00	297.62	169.73
	U_3~L_3	18.61	12.33	-9.63	-11.57	0.00	0.00	0.00	0.00	145.19	96.40
	L_3~U_4	19.34	14.30	10.91	7.20	0.00	0.00	0.00	0.00	61.00	77.54
	U_4~L_4	11.18	8.99	-7.10

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max, Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

| Location | Member | ZZ Axis Moments from STAAD: Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-ft) | Live Load (Max) End (k-ft) | Pedestrian Load (Min) Start (k-ft) | Pedestrian Load (Max) End (k-ft) | Lane Reduction & Impact Live Load Start (k-ft) | Lane Reduction & Impact Live Load End (k-ft) | Impact Pedestrian Load Max Start (k-ft) | Impact Pedestrian Load Max End (k-ft) | Max. Pos. Mom. Start (k-in) | Max. Pos. Mom. End (k-in) | S_{bb} (in^3) | S_b (in^3) | S_T (in^3) | I (in^4) | I_{eff} (in^4) | Shape Factor f | M_p (k-in) | Formula I.8 Term = F/ S_{bb} | M_z (k-in) | Equivalent Mom. Factor a | $C_{m(x)}$ | $C_{m(y)}$ | YY Axis Moments from STAAD: Dead Load Start (k-ft) | Dead Load End (k-ft) | Live Load (Max) Start (k-ft) | Live Load (Max) End (k-ft) | Pedestrian Load (Min) Start (k-ft) | Pedestrian Load (Max) End (k-ft) | Lane Reduction & Impact Live Load Start (k-ft) | Lane Reduction & Impact Live Load End (k-ft) | Impact Pedestrian Load Max Start (k-ft) | Impact Pedestrian Load Max End (k-ft) | Max. Pos. Mom. Start (k-in) | Max. Pos. Mom. End (k-in) | S_{bb} (in^3) | S_b (in^3) | S_T (in^3) | Z_T (in^3) | I_{yy} (in^4) | Shape Factor f | M_p (k-in) | P_{allow} (kip) | Formula I.8 Term = F/ S_{bb} | M_z (k-in) | Equivalent Mom. Factor a | $C_{m(x)}$ | $C_{m(y)}$ | Yield Axial Action | Yield Moment Portion | Yield Total | Pass | Tension Axial Action | Tension Moment Portion | Tension Total | Pass | Fracture Axial Action | Fracture Moment Portion | Fracture Total | Pass | Compression Axial Action | Compression Moment Portion | Compression Total | Pass |
|---|---|---|---

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: **HS20 Lane**
Condition: **As-Built**

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

Vehicle Load Factors: DL Factor= 1.30, LL Factor= 2.17
Pedestrian Load Factors: DL Factor= 1.30, LL Factor= 1.80

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Yes/Control/Compression Load)

M_z Information

M_y Information

| Location | Member | ZZ Axis Moments from STAAD: Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) Start (k-in) | Pedestrian Load (Max) End (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Start (k-in) | Impact Pedestrian Load End (k-in) | Max. Pos. Mom. Start (k-in) | Max. Pos. Mom. End (k-in) | Max. Neg. Mom. (k-in) | S_{bb} (in^3) | S_b (in^3) | Z_z (in^3) | I (in^4) | I_{eff} (in^4) | Shape Factor | M_p (k-in) | Formula I.8 Terms * F$_y$/S_{bb} | M_n (k-in) | Equivalent Mom. Factor: Start | End | C_m | C_{mb} | C_{bb} | YY Axis Moments from STAAD: Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) Start (k-in) | Pedestrian Load (Max) End (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Start (k-in) | Impact Pedestrian Load End (k-in) | Max. Pos. Mom. Start (k-in) | Max. Pos. Mom. End (k-in) | Max. Neg. Mom. (k-in) | S_{bb} (in^3) | S_b (in^3) | Z_y (in^3) | I_{yy} (in^4) | Shape Factor | M_p (k-in) | P_{crit} (kip) | Formula I.8 Terms * F$_y$/S_{bb} | M_n (k-in) | Equivalent Mom. Factor: Start | End | C_m | C_{mb} | C_{bb} | Tension: Yield: Axial Stress | Yield: Moment Stress | Yield: Total | Yield: Pass | Fracture: Axial Stress | Fracture: Moment Stress | Fracture: Total | Fracture: Pass | Buckle: Axial Stress | Buckle: Moment Stress | Buckle: Total | Buckle: Pass | Compression: Axial Stress | Compression: Moment Stress | Compression: Total | Compression: Pass |
|---|---|---

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.80

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information | M_3 Information

ZZ Axis Moments from STAAD | YY Axis Moments from STAAD | YY Axis Moments from STAAD

| Location | | Member | Dead Load Start (k-ft) | Dead Load End (k-ft) | Live Load (Max) Start (k-ft) | Live Load (Max) End (k-ft) | Pedestrian Load (Max) Start (k-ft) | Pedestrian Load (Max) End (k-ft) | Lane Reduction & Impact Live Load Start (k-ft) | Lane Reduction & Impact Live Load End (k-ft) | Impact Pedestrian Load Start (k-ft) | Impact Pedestrian Load End (k-ft) | Max. Neg. Mom. Start (k-ft) | Max. Neg. Mom. End (k-ft) | Dead Load (k-ft) | Live Load (Max) (k-ft) | Live Load (Min) (k-ft) | Pedestrian Load (Max) (k-ft) | Pedestrian Load (Min) (k-ft) | Lane Reduction & Impact Live Load (k-ft) | Impact Pedestrian Load (k-ft) | S_{top} (in^3) | S_{bot} (in^3) | Z_z (in^3) | I_z (in^4) | Shape Factor f | M_p (k-in) | Formula 1.8 Term * F_y/S_bot | M_y (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor $C_{m(a)}$ | Equivalent Mom. Factor $C_{m(b)}$ | Dead Load (k-ft) | Live Load (Max) (k-ft) | Live Load (Min) (k-ft) | Pedestrian Load (Max) (k-ft) | Pedestrian Load (Min) (k-ft) | Lane Reduction & Impact Live Load (k-ft) | Impact Pedestrian Load (k-ft) | S_{top} (in^3) | S_{bot} (in^3) | Z_y (in^3) | I_{yy} (in^4) | Shape Factor f | M_p (k-in) | r_{yy} (in) | Formula 1.8 Term * F_y/S_bot | M_y (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor $C_{m(a)}$ | Equivalent Mom. Factor $C_{m(b)}$ | Pass | Yield Axial Tension | Yield Moment Tension | Yield Total | Pass | Fracture Axial Tension | Fracture Moment Tension | Fracture Total | Pass | Buckle Axial Compression | Buckle Moment Compression | Buckle Total | Pass | Yield Axial Compression | Yield Moment Compression | Yield Total | Pass |
|---|---|---

Axial - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Does Lumpsteel vs Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

Location		Member	ZZ Axis Moments from STAAD: Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)	Max. Pos. Moments: Start (k-in)	Max. Pos. Moments: End (k-in)	S_{top} (in^3)	S_b (in^3)	Z_z (in^3)	I (in^4)	$I_{t/n}$ (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F_y/S_{top}	M_z (k-in)	YY Axis Moments from STAAD: Equivalent Mom. Factor a	Equivalent Mom. Factor $C_{m/n}$	Dead Load (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)	Max. Neg. Mom. Start (k-in)	Max. Neg. Mom. End (k-in)	S_{top} (in^3)	S_b (in^3)	Z_y (in^3)	$I_{t/n}$ (in^4)	Shape Factor	M_p (k-in)	$P_{/n}$ (kips)	Formula 1.8 Term * F_y/$M_{n/n}$	$M_{n/n}$ (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor $C_{m/n}$	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass
Structure 1		U_0-L_1	3.65	-1.42	-0.01	0.39	-0.02	-0.15	0.15	0.01	-0.03	-0.02	-0.13	4.19	-0.24	-1.58	1.75	0.12	-0.34	-0.23	4.47	7.24	4.23	-5.26	15.6	15.63	15.58	25.96	5	804.0	1.66	857	1.5	773.7	0.617	0.85	0.85	-84.92	-28.02	-8.71	-5.19	2.83	2.73	-1.09	-0.56	0.65	0.50	-94.05	-55.63	30.54	29.47	-13.07	-6.73	6.58	6.00	-314.17	-156.96	-44.22	27.43	100.5	100.60	120.29	66.1	1.20	3970	144	0.9425776	3126.1	0.500	0.80	0.80	0.309	0.088	0.40	Yes	0.187	0.048	0.24	Yes	—	—	—	—
		U_1-L_1	-11.48	-3.33	-0.95	0.00	0.43	-0.17	-0.25	0.07	0.08	-0.04	-10.25	-0.04	4.60	-1.84	-2.95	0.84	-1.98	-2.84	4.13	7.24	4.23	-5.26	15.6	15.63	15.58	25.96	5	804.0	1.66	857	1.5	773.7	0.617	0.85	0.85	-122.21	-23.62	-12.26	-10.07	3.62	2.79	1.18	-0.11	0.49	0.45	-132.36	-109.79	39.14	30.16	14.16	-1.30	5.93	5.36	-127.52	-205.00	243.68	96.06	94.4	100.6	113.97	62.1	1.13	3454	166	0.9425777	2947.1	0.394	0.76	0.76	0.225	0.118	0.35	Yes	0.124	0.065	0.19	Yes	—	—	—	—
		U_1-L_2	-12.07	-11.78	-3.36	-0.07	-0.15	-0.43	-0.03	0.09	-0.03	-0.15	-4.65	-4.68	-1.52	-0.39	1.56	-0.37	-0.04	-0.14	-17.15	-3.64	-25.65	15.4	15.42	15.42	23.71	5	791.1	1.54	782	1.5	763.3	-0.09	0.51	0.51	-139.74	-40.92	-6.23	-41.49	-244.66	-19.27	-15.58	-1.76	4.19	2.78	38.09	-11.36	-348.45	14.05	94.3	93.99	93.99	104.66	65.3	1.11	3454	160	0.9425777	2947.3	-0.040	0.38	0.38	0.277	0.099	0.38	Yes	0.263	0.094	0.36	Yes
		U_2-L_2	9.81	-15.01	-0.08	-0.09	0.34	-0.52	0.00	0.00	0.00	-0.11	-0.83	-1.00	3.72	-5.59	0.00	0.00	-0.04	-1.27	10.96	-21.68	20.81	-31.63	15.4	15.42	15.42	23.71	5	791.1	1.54	782	1.5	763.3	-0.608	0.34	0.34	206.47	91.61	4.66	-3.27	-9.35	-2.57	0.00	0.00	27.73	9.26	159.27	42.65	49.57	99.03	94.0	93.99	93.99	104.66	65.3	1.11	3454	171	0.9518878	2952.4	0.268	0.71	0.71	0.503	0.061	0.57	Yes	0.466	0.040	0.51	Yes
		U_2-L_3	-16.21	25.06	-0.46	0.00	0.14	0.11	0.00	0.00	0.00	0.00	-1.69	1.26	-0.61	0.91	0.00	0.00	-0.13	0.33	32.57	19.4	19.37	19.37	23.87	5	957.7	1.54	782	1.5	958.8	0.033	0.34	0.34	-154.31	8.15	5.44	1.98	-0.39	0.00	0.00	-22.26	-7.10	0.00	0.00	-124.06	-50.89	113.4	113.37	113.37	130.97	81.7	1.08	4426	0.096	0.53	Yes	0.224	0.053	0.28	Yes	—	—	—	—
		U_3-L_3	-34.06	79.08	0.74	1.78	0.37	0.14	-0.28	0.44	0.00	0.00	-8.01	19.22	3.96	1.58	-3.32	5.24	0.00	0.00	-61.64	144.46	-35.69	106.18	25.1	25.09	35.09	53.13	4	1183.7	1.51	1753	1.5	1737.0	-0.427	0.43	0.43	-192.51	23.27	4.33	3.23	-1.65	1.10	-1.71	-0.37	0.00	0.00	-148.32	105.83	-288.78	83.98	148.0	147.96	147.96	167.25	221.8	1.13	5519	262	0.9564852	4728.8	-0.194	0.92	0.92	0.338	0.135	0.54	Yes	0.273	0.074	0.30	Yes
		U_3-L_4	-21.10	62.80	-1.51	1.65	0.01	-0.07	-0.06	17.26	0.00	0.00	-0.06	17.26	2.56	1.49	-4.50	4.15	0.00	0.00	-137.28	145.16	-79.29	112.53	25.1	25.09	35.09	53.13	4	1183.7	1.51	1753	1.5	1737.0	-0.943	0.22	0.22	-172.01	-14.62	-2.96	-2.44	-0.50	0.00	0.00	-56.45	-7.24	-26.78	-6.92	0.00	0.00	-229.20	-121.81	-409.26	-23.95	94.0	147.96	147.96	167.25	221.8	1.13	5519	245	0.9662676	4738.1	-0.194	0.92	0.92	0.242	0.382	0.62	Yes	0.196	0.301	0.50	Yes
		U_4-L_4	-1.39	102.62	0.40	2.05	0.31	-0.39	-0.09	0.65	0.00	0.00	-0.28	22.15	3.30	4.16	-1.07	7.76	0.00	0.00	-10.49	183.32	5.36	125.70	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5	1737.0	-0.057	0.58	0.58	-153.23	-53.31	6.17	1.99	-0.17	-0.13	-1.81	-0.82	0.00	0.00	-126.10	-102.37	-203.06	-124.29	148.0	147.96	147.96	167.25	221.8	1.13	5519	205	0.9599547	4689.9	0.612	0.84	0.84	0.371	0.141	0.52	Yes	0.204	0.078	0.29	Yes
		U_4-L_5	-12.27	139.07	0.79	2.39	0.38	0.08	-0.19	0.58	0.21	0.13	-8.51	29.83	4.08	0.84	-2.32	6.95	2.47	1.56	-34.99	250.19	-95.18	160.61	40.7	40.70	40.44	67.92	25	1661.0	1.67	2241	1.5	2014.7	-0.145	0.54	0.54	-251.60	97.15	-11.79	-8.28	2.74	1.21	0.27	2.17	0.60	-127.30	-87.85	29.58	19.52	-2.54	0.82	21.98	7.20	61.26	291.17	168.58	202.9	202.86	190.44	238.56	256.9	1.18	7872	228	0.9638845	6452.3	0.431	0.77	0.77	0.287	0.088	0.38	Yes
		U_5-L_5	-73.43	69.78	-1.50	1.54	0.16	0.04	-0.31	0.35	0.00	0.00	-16.20	16.63	1.67	0.46	-3.77	4.25	0.00	0.00	-130.56	126.75	-91.83	91.72	39.8	39.77	39.56	65.61	21	1610.3	1.65	2165	1.5	1968.6	-0.971	0.21	0.21	-124.82	-78.50	-11.87	-7.46	-1.08	1.02	1.69	0.30	0.00	0.00	-196.55	-276.52	106.45	-78.09	197.4	197.41	184.99	230.30	248.6	1.17	7600	299	0.9683136	6308.9	0.711	0.88	0.88	0.477	0.097	0.58	Yes	0.295	0.055	0.35	Yes
		U_5-L_6	-82.30	69.78	-1.50	1.54	0.16	0.04	-0.39	0.23	0.00	0.00	-21.09	13.76	1.72	0.67	-4.92	2.71	2.00	0.00	-133.37	38.13	162.87	44.21	42.7	42.74	42.74	65.30	9	1389.8	1.53	2155	1.5	2116.6	-0.376	0.45	0.45	-93.31	-87.17	-13.90	1.32	1.20	2.23	0.68	0.00	0.00	-263.66	-426.49	84.89	-65.30	173.7	173.70	173.70	202.71	247.5	1.17	6890	277	0.9152526	5901.6	0.631	0.84	0.84	0.491	0.137	0.63	Yes	0.270	0.075	0.35	Yes
		U_6-L_6	-69.90	47.85	0.96	0.68	0.09	-0.01	-0.31	0.21	0.00	0.00	-10.39	7.34	0.93	-0.10	-3.70	2.56	0.00	0.00	-113.76	78.29	-88.86	62.00	20.6	20.80	20.67	34.66	7	1076.0	1.67	1444	1.5	1329.6	-0.688	0.32	0.32	-136.33	-66.15	-9.74	-6.20	1.32	1.11	1.94	0.89	0.00	0.00	-105.14	-66.98	-32.04	-20.39	37.79	-85.96	133.5	133.45	123.27	155.40	188.8	1.14	5128	176	0.9503181	4196.9	0.608	0.84	0.84	0.386	0.140	0.53	Yes
		U_6-L_7	-27.40	6.37	0.49	0.05	0.03	0.02	-0.15	0.03	0.00	0.00	-5.32	0.53	0.36	0.22	-1.75	0.34	0.00	0.00	-47.15	9.42	-34.84	8.74	15.4	15.42	15.42	23.71	7	791.1	1.54	782	1.5	763.3	-0.200	0.52	0.52	-59.25	-19.65	-10.16	-8.03	1.15	1.11	2.35	0.79	0.00	0.00	-109.73	-86.69	-12.44	-11.93	28.22	9.53	0.00	0.00	-160.71	-291.37	103.99	-77.68	94.0	93.99	93.99	104.66	65.3	1.11	3454	145	0.9423755	2925.7	0.552	0.82	0.82	0.372	0.145	0.52	Yes
		U_7-L_7	-0.38	3.27	0.01	0.01	-0.01	-0.01	-0.05	0.04	0.00	0.00	-0.11	0.12	0.04	0.03	-0.03	0.03	0.00	0.00	-0.64	0.97	-0.48	0.90	15.4	15.42	15.42	23.71	7	791.1	1.54	782	1.5	763.3	-0.009	0.34	0.34	-20.28	-10.04	6.09	-4.15	-0.05	0.20	2.89	0.00	0.00	0.00	-34.07	-7.46	0.00	-0.66	-191.40	-39.55	93.99	104.66	65.3	1.11	3454	160	0.9423755	2925.7	0.552	0.82	0.82	0.372	0.145	0.52	Yes
		U_7-L_8	-31.05	12.71	-0.87	0.54	0.22	-0.18	-0.19	0.11	0.05	-0.04	-9.34	5.78	2.34	-1.98	-3.29	1.32	0.56	-0.52	-60.60	29.04	-35.28	12.24	15.4	15.42	15.42	23.71	7	791.1	1.54	782	1.5	763.3	-0.479	0.41	0.41	-199.02	-99.98	4.60	1.19	-0.30	0.04	2.80	0.48	0.07	0.03	-148.38	-5.76	28.89	-0.36	-155.86	102.22	266.65	-128.94	94.0	93.99	93.99	104.66	65.3	1.11	3454	123	0.9337222	2894.2	0.485	0.79	0.79	0.238	0.154	0.40	Yes
		U_8-L_8	-46.66	27.26	-1.51	1.65	0.01	-0.07	-0.06	17.26	0.00	0.00	-0.06	17.26	2.56	1.49	-4.50	4.15	0.00	0.00	-137.28	145.16	-79.29	112.53	25.1	25.09	35.09	53.13	4	1183.7	1.51	1753	1.5	1737.0	-0.943	0.22	0.22	-172.01	-14.62	-2.96	-2.44	-0.50	0.00	0.00	-56.45	-7.24	-26.78	-6.92	0.00	0.00	-229.20	-121.81	-409.26	-23.95	94.0	147.96	147.96	167.25	221.8	1.13	5519	245	0.9662676	4738.1	-0.194	0.92	0.92	0.242	0.382	0.62	Yes
		U_8-L_9	-118.88	85.32	-2.12	1.65	0.31	-0.29	-0.55	0.42	0.06	-0.05	-22.91	17.85	3.33	-3.08	-6.59	5.04	0.67	-0.62	-203.92	149.93	-147.08	104.24	25.1	25.09	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.734	0.31	0.31	-301.40	-67.04	9.40	1.64	-0.15	-0.36	-3.13	-1.42	0.03	0.05	-265.48	-48.76	-395.28	-95.46	148.0	147.96	147.96	167.25	221.8	1.13	5519	207	0.9601995	4688.3	0.242	0.70	0.70	0.434	0.187	0.63	Yes
		U_9-L_9	-118.21	87.78	-1.94	1.65	0.26	-0.27	-0.57	0.46	0.04	-0.04	-20.99	13.21	2.40	-2.03	-5.97	3.72	0.43	-0.40	-184.50	148.84	-147.08	100.32	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.732	0.31	0.31	-297.12	-100.44	4.12	2.48	0.01	-0.11	-3.27	-1.47	0.02	0.03	-264.72	-142.44	28.33	0.78	-39.05	-18.84	-0.14	30.15	346.2	-146.01	148.0	147.96	147.96	167.25	221.8	1.13	5519	207	0.9572364	4672.2	0.245	0.71	0.71	0.427	0.178	0.62	Yes
		U_{10}-L_9	-146.00	120.15	-2.01	1.96	0.16	-0.11	-0.77	0.62	0.04	-0.04	-27.19	21.13	1.76	-1.87	-8.29	7.49	0.50	-0.46	-249.91	202.65	-189.98	152.15	38.8	38.83	38.83	59.23	3	1284.6	1.53	1955	1.5	1922.1	-0.814	0.22	0.22	-277.59	-108.48	3.57	1.18	0.02	-0.01	-1.77	-0.03	0.01	0.01	-244.72	-242.03	-298.91	-141.19	160.8	160.80	160.80	184.25	223.9	1.15	6080	156	0.9417776	5078.9	0.843	0.82	0.82	0.463	0.179	0.64	Yes
		U_{10}-L_{10}	-86.84	116.71	-1.36	2.27	0.29	-0.55	-0.13	0.38	0.01	-0.06	-14.54	24.53	3.10	-3.91	-1.51	4.57	0.14	-0.70	-144.39	204.86	-106.17	138.92	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.705	0.32	0.32	-280.17	-31.06	-14.92	-3.69	2.19	1.10	-1.06	-0.10	0.40	0.20	-161.10	-61.41	23.60	11.83	-12.76	-1.15	4.90	2.39	-95.76	-173.44	-195.57	-14.76	173.7	173.70	173.70	202.71	247.5	1.17	6890	180	0.9541562	5469.3	0.291	0.72	0.72	0.521	0.184	0.71	Yes
		U_{11}-L_{10}	-1.34	1.61	-0.79	-0.69	0.33	0.12	0.00	0.00	0.00	0.00	-1.36	1.21	-0.75	0.59	0.00	0.00	-2.75	-2.45	2.29	2.59	-1.79	2.02	15.4	15.42	15.42	23.71	7	791.1	1.54	782	1.5	763.3	-0.009	0.34	0.34	-46.58	-9.76	-4.56	-2.26	1.83	0.85	-0.25	-0.04	0.16	0.08	-36.21	-23.72	9.26	4.73	-5.14	-0.46	1.97	0.96	-38.50	-69.73	-78.65	-5.93	94.0	93.99	93.99	104.66	65.3	1.11	3454	58	0.9425777	2947.1	0.394	0.76	0.76	0.225	0.118	0.35	Yes
		U_{11}-L_{12}	-118.22	92.25	-2.94	2.40	0.94	-0.83	-0.62	0.43	0.11	-0.10	-31.76	29.96	10.19	-8.93	-6.28	5.11	1.31	-1.25	-222.92	181.58	-151.73	100.57	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.792	0.26	0.26	32.87	-71.75	-15.95	-23.11	18.68	12.11	0.13	3.98	3.06	-3.14	-17.77	-262.34	92.80	-52.79	148.0	147.96	147.96	167.25	221.8	1.13	5519	217	0.9618976	4696.6	0.931	0.97	0.97	0.492	0.183	0.68	Yes
		U_{12}-L_{12}	-34.32	8.80	-1.16	0.76	0.56	-0.46	-0.18	0.11	0.07	-0.06	-12.66	8.15	0.65	-0.28	-4.55	2.14	1.27	-0.86	-72.82	-58.83	28.85	-18.51	0.47	0.47	15.42	15.42	23.71	7	791.1	1.54	782	1.5	763.3	-0.490	0.40	0.40	-88.14	-32.22	-13.30	-5.18	1.95	1.29	1.44	0.29	0.21	0.14	-143.60	-55.95	23.03	13.94	-17.27	-3.44	2.37	1.62	-196.55	-163.77	160.14	-12.33	94.0	93.99	93.99	104.66	65.3	1.11	3454	96	0.9139827	2834.9	0.833	0.93	0.93	0.252	0.132	0.39	Yes
		U_{13}-L_{12}	-1.48	1.62	-0.71	0.01	0.01	-0.01	-0.01	0.01	0.00	0.00	-1.58	1.58	-0.98	0.77	0.00	0.00	-3.58	-3.19	2.98	3.37	-2.33	2.63	15.4	15.42	15.42	23.71	7	791.1	1.54	782	1.5	763.3	-0.009	0.34	0.34	-60.58	-12.69	-5.93	-2.94	2.38	1.10	-0.32	-0.05	0.21	0.10	-47.10	-30.84	12.04	6.15	-6.68	-0.60	2.56	1.25	-50.07	-90.69	-102.24	-7.71	94.0	93.99	93.99	104.66	65.3	1.11	3454	75	0.9425777	2947.1	0.394	0.76	0.76	0.225	0.118	0.35	Yes
		U_{13}-L_{14}	-13.33	-37.03	-0.21	0.04	0.24	-0.54	0.00	0.00	0.00	-0.14	-2.26	-0.43	2.99	-2.89	-0.86	0.00	0.00	-0.59	-12.44	-47.20	-25.90	-82.84	8.4	8.47	8.47	14.75	1	853.4	-0.377	0.45	0.45	131.99	1.78	-4.30	-5.65	-8.08	-1.86	0.00	0.00	2.09	0.73	-46.45	-61.02	-87.23	-20.07	0.00	0.00	25.09	8.80	70.43	29.54	-129.90	-17.93	41.1	13.03	103.08	133.08	116.41	73.3	1.13	3841	126	0.9345406	3779.0	-0.542	0.94	0.94	0.425	0.069	0.50	Yes
		U_{14}-L_{14}	-66.01	54.01	-1.56	0.51	-0.13	-0.15	-0.23	0.17	0.00	0.00	-16.87	5.48	-1.44	-1.64	-2.80	2.04	0.00	0.00	-122.37	82.08	-88.93	66.66	20.5	20.51	20.40	33.89	8	1017.2	1.65	1118	1.5	1016.2	-0.671	0.33	0.33	-243.32	-138.08	3.73	10.38	-2.86	-5.17	-1.76	-0.67	0.00	0.00	-229.29	63.45	-383.43	-300.51	128.2	128.15	118.23	148.43	106.4	1.16	4898	160	0.9485836	4011.5	0.784	0.91	0.91	0.450	0.188	0.64	Yes
		U_{15}-L_{14}	-133.76	104.25	-3.02	2.79	0.61	-0.59	-0.42	0.27	0.00	0.00	-30.19	17.42	1.32	-1.50	-7.52	4.62	0.00	0.00	-229.27	170.00	-177.06	107.78	38.8	38.83	38.83	59.23	3	1284.6	1.53	1955	1.5	1922.1	-0.689	0.32	0.32	-270.47	-100.80	7.93	4.59	-5.31	-0.93	-3.04	-1.30	0.00	0.00	-249.65	-89.52	0.00	-12.45	-89.52	-37.98	0.00	0.00	-359.25	-247.08	89.53	0.00	160.8	160.80	160.80	184.25	223.9	1.15	6080	156	0.9417776	5078.9	0.843	0.82	0.82	0.463	0.179	0.64	Yes
		U_{15}-L_{16}	-116.16	105.67	-2.20	2.01	0.23	0.01	-0.36	0.36	0.00	0.00	-23.75	21.66	2.46	0.15	-4.27	4.31	0.00	0.00	-202.46	184.31	-143.67	137.70	42.7	42.74	42.74	65.30	5	1389.6	1.53	2155	1.5	2115.6	-0.910	0.24	0.24	-153.52	-20.51	8.09	5.80	-1.64	-0.32	0.00	0.00	0.00	0.00	-53.84	-129.63	7.02	20.80	-19.70	-3.85	0.00	0.00	-82.93	210.87	-184.37	18.41	173.7	173.70	173.70	202.71	247.5	1.17	6890	201	0.9547539	5530.1	-0.393	0.44	0.44	0.569	0.125	0.70	Yes
		U_{16}-L_{16}	-138.98	120.29	-2.85	1.96	0.10	-0.09	-0.45	0.40	0.00	0.00	-30.52	23.51	1.56	-0.03	-5.60	4.40	0.00	0.00	-234.33	219.74	-164.65	157.93	38.8	38.83	38.83	59.23	3	1284.6	1.53	1955	1.5	1922.1	-0.844	0.22	0.22	-321.12	-120.64	2.57	1.49	-0.38	-0.06	-2.22	-0.91	0.00	0.00	-295.29	-85.70	-344.04	-23.21	160.8	160.80	160.80	184.25	223.9	1.15	6080	156	0.9417776	5078.9	0.843	0.82	0.82	0.463	0.179	0.64	Yes
		U_{16}-L_{17}	-131.93	101.03	-2.79	2.43	0.73	-0.33	-0.42	0.51	0.00	0.00	-30.18	26.27	7.87	-7.34	-5.03	6.11	0.00	0.00	-236.88	253.25	-154.45	188.67	46.7	46.71	46.71	73.43	10	1711.0	1.53	2357	1.5	2312.1	-0.935	0.23	0.23	-325.23	1.03	6.01	4.16	-2.91	1.03	2.21	-0.57	0.00	0.00	-282.19	98.21	-490.96	25.49	201.3	201.30	201.30	221.31	271.6	1.10	7303	171	0.9518445	6323.0	-0.052	0.98	0.98	0.557	0.175	0.74	Yes
		U_{17}-L_{17}	-175.29	162.92	-3.09	2.80	0.91	-0.64	-0.56	0.44	0.02	-0.02	-33.84	30.24	12.48	-8.75	-7.64	6.67	0.42	-0.22	-300.11	277.50	-201.62	192.84	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.924	0.23	0.23	-293.53	-32.62	3.32	3.36	-2.44	0.59	2.02	-0.23	-0.16	-0.19	-253.33	-32.47	36.13	-24.24	-2.77	-1.07	2.33	0.87	-297.12	-317.40	144.06	-27.13	173.7	173.70	173.70	202.71	247.5	1.17	6890	140	0.9617113	5477.8	0.268	0.71	0.71	0.287	0.112	0.40	Yes
		U_{18}-L_{17}	-44.32	68.11	-1.17	0.63	0.33	0.13	-0.15	0.26	0.00	0.00	-10.61	20.02	2.62	-1.46	-2.39	4.47	0.00	0.00	-76.61	129.46	-59.70	112.47	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.705	0.32	0.32	-280.17	-31.06	-14.92	-3.69	2.19	1.10	-1.06	-0.10	0.40	0.20	-161.10	-61.41	23.60	11.83	-12.76	-1.15	4.90	2.39	-95.76	-173.44	-195.57	-14.76	173.7	173.70	173.70	202.71	247.5	1.17	6890	180	0.9541562	5469.3	0.291	0.72	0.72	0.521	0.184	0.71	Yes
		U_{19}-L_{19}	-45.28	135.72	-1.93	2.53	1.00	-0.38	-0.36	0.49	0.18	-0.02	-20.80	27.31	10.75	-4.13	-4.34	5.62	2.17	-0.28	-103.94	235.61	-35.58	167.49	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.441	0.42	0.42	-254.53	118.11	-9.74	-3.99	3.55	1.62	-0.21	0.37	1.76	0.17	-105.19	-43.08	38.33	17.46	-2.51	4.48	21.41	1.99	192.97	57.60	413.93	188.78	148.0	147.96	147.96	167.25	221.8	1.13	5519	114	0.9274995	4328.7	0.456	0.78	0.78	0.453	0.208	0.67	Yes
		U_{19}-L_{20}	-143.91	99.49	-2.89	2.38	0.50	-0.61	-0.59	0.41	0.00	0.00	-32.52	22.23	6.31	-3.41	-5.76

Axial AB Inventory

Inventory Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Upper Chord	Structure 1	U_0 - U_1	-----	-596.12	-168	161	-430	-569	6	12	-67	-131	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.186	1.00	Yes	0.804	0.135	0.94	Yes	1.00	**4.78**
		U_1 - U_2	-----	-595.93	-54	117	-159	-620	-7	-7	-17	-153	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.180	1.00	Yes	0.804	0.147	0.96	Yes	1.00	**2.58**
		U_2 - U_3	-----	-635.93	-107	304	-454	-299	10	27	-26	129	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.128	1.00	Yes	0.858	0.108	0.97	Yes	1.00	**2.39**
		U_3 - U_4	359.21	-562.25	85	320	-391	-616	5	38	157	62	0.412	0.173	0.59	Yes	0.283	0.119	0.41	Yes	0.765	0.234	1.00	Yes	0.758	0.147	0.91	Yes	1.00	**2.37**
		U_4 - U_5	381.01	-585.39	141	310	-871	-152	22	-31	94	-51	0.437	0.223	0.66	Yes	0.300	0.153	0.46	Yes	0.797	0.196	1.00	Yes	0.789	0.207	1.00	Yes	1.00	**2.49**
		U_5 - U_6	720.57	-----	282	499	-455	270	-157	-79	248	-286	0.826	0.167	1.00	Yes	0.557	0.109	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.34**
		U_6 - U_7	897.19	-----	397	238	-333	41	-319	-132	384	-120	0.858	0.137	1.00	Yes	0.600	0.094	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.08**
		U_7 - U_8	1006.09	-----	-394	1795	-163	877	-210	-222	-112	-221	0.697	0.295	1.00	Yes	0.486	0.201	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.08**
		U_8 - U_9	851.52	-----	1434	-415	687	-167	-431	-91	-237	-119	0.698	0.293	1.00	Yes	0.477	0.200	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.83**
		U_9 - U_{10}	765.95	-----	248	339	268	-279	-259	30	-17	570	0.831	0.167	1.00	Yes	0.563	0.112	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.09**
		U_{10} - U_{11}	-----	-618.92	372	-28	303	-926	22	102	212	143	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.164	0.97	Yes	0.790	0.207	1.00	Yes	1.00	**3.43**
		U_{11} - U_{12}	-----	-893.74	230	-103	48	-655	112	403	154	613	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.151	1.00	Yes	0.838	0.109	0.95	Yes	1.00	**2.12**
		U_{12} - U_{13}	-----	-1272.81	9	-234	-193	-573	346	206	537	330	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.133	1.00	Yes	0.850	0.079	0.93	Yes	1.00	**2.11**
		U_{13} - U_{14}	-----	-1347.96	-155	-389	-461	-1402	225	177	383	501	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.213	1.00	Yes	0.773	0.155	0.93	Yes	1.00	**1.68**
		U_{14} - U_{15}	-----	-1354.47	-280	-254	-1315	-606	213	29	591	170	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.211	1.00	Yes	0.776	0.145	0.93	Yes	1.00	**1.69**
		U_{15} - U_{16}	-----	-1485.97	-143	-431	-557	-797	79	36	431	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.136	1.00	Yes	0.852	0.088	0.94	Yes	1.00	**2.06**
		U_{16} - U_{17}	-----	-1426.41	-336	-211	-1099	-403	133	-53	604	56	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.170	1.00	Yes	0.818	0.121	0.94	Yes	1.00	**2.34**
		U_{17} - U_{18}	-----	-1097.58	-204	-79	-671	105	-13	-62	456	-60	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.121	1.00	Yes	0.859	0.109	0.97	Yes	1.00	**2.43**
		U_{18} - U_{19}	-----	-738.31	-191	-75	-714	-40	14	-116	465	-280	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.157	1.00	Yes	0.831	0.144	0.98	Yes	1.00	**2.65**
		U_{19} - U_{20}	-----	-465.23	-257	291	-1529	2321	-71	-120	407	-1328	-----	-----	-----	-----	-----	-----	-----	-----	0.528	0.330	0.86	Yes	0.523	0.467	1.00	Yes	1.00	**5.63**
	Structure 2	U_0 - U_1	-----	-655.05	-103	-10	-178	-1308	8	-61	-55	-119	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.222	1.00	Yes	0.774	0.222	1.00	Yes	1.00	**5.54**
		U_1 - U_2	-----	-882.05	-55	-145	46	-882	-73	-220	-35	-153	-----	-----	-----	-----	-----	-----	-----	-----	0.857	0.142	1.00	Yes	0.851	0.134	0.99	Yes	1.00	**2.99**
		U_2 - U_3	-----	-1209.01	-108	-227	-71	-1133	-23	408	-84	108	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.131	1.00	Yes	0.858	0.115	0.98	Yes	1.00	**2.59**
		U_3 - U_4	-----	-1396.80	-413	-389	-778	-1018	559	961	192	173	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.192	1.00	Yes	0.795	0.091	0.89	Yes	1.00	**2.09**
		U_4 - U_5	-----	-1553.62	-453	-328	-830	-1392	809	320	238	139	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.194	1.00	Yes	0.798	0.115	0.92	Yes	1.00	**2.01**
		U_5 - U_6	-----	-1641.01	-392	69	-1149	-770	182	-246	263	377	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.143	1.00	Yes	0.843	0.095	0.94	Yes	1.00	**1.95**
		U_6 - U_7	-----	-1398.14	-260	-82	-959	-1434	-152	-196	337	135	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.193	1.00	Yes	0.796	0.128	0.93	Yes	1.00	**1.60**
		U_7 - U_8	-----	-1405.98	-179	-154	-1530	-824	-114	-192	206	53	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.186	1.00	Yes	0.801	0.136	0.94	Yes	1.00	**1.61**
		U_8 - U_9	-----	-1276.16	-245	157	-961	-399	-108	-208	310	-228	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.121	1.00	Yes	0.866	0.102	0.97	Yes	1.00	**1.79**
		U_9 - U_{10}	-----	-968.52	-50	374	-1134	-129	-149	-157	258	-50	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.150	1.00	Yes	0.836	0.138	0.98	Yes	1.00	**1.90**
		U_{10} - U_{11}	651.49	-821.88	287	466	-1081	-95	-215	-183	331	-135	0.550	0.193	0.75	Yes	0.374	0.125	0.50	Yes	0.822	0.169	1.00	Yes	0.817	0.153	0.97	Yes	1.00	**2.89**
		U_{11} - U_{12}	934.38	-----	313	593	-1082	389	-388	-145	427	-112	0.789	0.205	1.00	Yes	0.530	0.137	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.22**
		U_{12} - U_{13}	1308.90	-----	-99	-176	-328	-131	26	-749	-235	-480	0.884	0.113	1.00	Yes	0.630	0.079	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.98**
		U_{13} - U_{14}	1234.90	-----	-861	3516	-432	1606	-416	-867	-498	-655	0.607	0.385	1.00	Yes	0.430	0.253	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.10**
		U_{14} - U_{15}	1277.91	-----	3193	-319	1302	67	-1037	-626	-816	-608	0.628	0.366	1.00	Yes	0.445	0.241	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.94**
		U_{15} - U_{16}	1514.19	-----	111	136	13	190	-705	157	-316	14	0.915	0.081	1.00	Yes	0.651	0.057	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.65**
		U_{16} - U_{17}	1189.45	-----	606	452	678	-556	-338	-81	246	190	0.876	0.121	1.00	Yes	0.583	0.079	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.14**
		U_{17} - U_{18}	827.08	-----	429	405	347	-387	-5	194	79	644	0.830	0.167	1.00	Yes	0.553	0.110	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.88**
		U_{18} - U_{19}	814.76	-518.02	525	422	392	-717	62	113	350	275	0.818	0.173	1.00	Yes	0.537	0.111	0.65	Yes	0.616	0.183	0.80	Yes	0.612	0.122	0.74	Yes	1.00	**3.35**
		U_{19} - U_{20}	610.58	-777.35	388	332	-125	-534	1	-61	128	417	0.573	0.142	0.72	Yes	0.380	0.093	0.48	Yes	0.863	0.128	1.00	Yes	0.858	0.086	0.95	Yes	1.00	**2.81**
		U_{20} - U_{21}	485.21	-947.68	217	209	-236	-568	-83	-73	290	169	0.376	0.114	0.50	Yes	0.264	0.075	0.34	Yes	0.871	0.122	1.00	Yes	0.865	0.082	0.95	Yes	1.00	**2.52**
		U_{21} - U_{22}	311.42	-833.79	74	153	-508	-1121	-28	30	184	340	0.242	0.199	0.45	Yes	0.171	0.134	0.31	Yes	0.767	0.228	1.00	Yes	0.761	0.162	0.93	Yes	1.00	**1.86**
		U_{22} - U_{23}	312.01	-835.03	162	55	-1105	-505	-3	-9	405	83	0.242	0.204	0.45	Yes	0.172	0.137	0.31	Yes	0.768	0.225	1.00	Yes	0.762	0.160	0.93	Yes	1.00	**1.86**
		U_{23} - U_{24}	451.08	-960.85	186	191	-508	-382	-107	-27	318	-163	0.350	0.108	0.46	Yes	0.245	0.071	0.32	Yes	0.883	0.112	1.00	Yes	0.877	0.074	0.96	Yes	1.00	**2.41**
		U_{24} - U_{25}	529.48	-794.95	298	304	-693	-99	-133	-27	391	-136	0.497	0.164	0.67	Yes	0.329	0.107	0.44	Yes	0.883	0.116	1.00	Yes	0.877	0.111	0.99	Yes	1.00	**2.54**
		U_{25} - U_{26}	815.48	-687.06	415	457	-746	373	-261	-3	302	-249	0.819	0.171	0.99	Yes	0.537	0.109	0.65	Yes	0.816	0.182	1.00	Yes	0.811	0.127	0.94	Yes	1.00	**3.56**
		U_{26} - U_{27}	844.85	-----	470	327	-618	442	-311	4	263	-287	0.848	0.151	1.00	Yes	0.565	0.100	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.34**
		U_{27} - U_{28}	1170.89	-----	445	446	-655	627	-475	81	239	-217	0.863	0.132	1.00	Yes	0.574	0.087	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.74**
		U_{28} - U_{29}	1509.92	-----	-303	122	-83	-3	109	-556	-339	-328	0.913	0.081	1.00	Yes	0.649	0.056	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.06**
		U_{29} - U_{30}	1297.45	-----	-398	3300	-19	1054	-500	-739	-310	-207	0.638	0.356	1.00	Yes	0.452	0.234	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.22**
		U_{30} - U_{31}	1288.57	-----	3228	-630	1071	-131	-894	-445	-314	-194	0.634	0.360	1.00	Yes	0.449	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		U_{31} - U_{32}	1363.78	-----	-52	171	-135	-183	-535	224	185	481	0.921	0.074	1.00	Yes	0.656	0.052	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.63**
		U_{32} - U_{33}	974.69	-----	511	327	437	-811	-101	-16	469	443	0.823	0.172	1.00	Yes	0.553	0.114	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.19**
		U_{33} - U_{34}	883.32	-721.81	480	373	-71	-917	-13	212	415	979	0.746	0.249	1.00	Yes	0.508	0.165	0.68	Yes	0.722	0.218	0.94	Yes	0.717	0.129	0.85	Yes	1.00	**3.52**
		U_{34} - U_{35}	448.51	-941.80	412	123	-62	-1078	179	150	590	462	0.329	0.195	0.53	Yes	0.223	0.132	0.36	Yes	0.818	0.177	1.00	Yes	0.813	0.131	0.95	Yes	1.00	**2.51**
		U_{35} - U_{36}	-----	-1247.66	213	-104	-313	-907	96	86	360	438	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.146	1.00	Yes	0.846	0.096	0.95	Yes	1.00	**2.26**
		U_{36} - U_{37}	-----	-1378.18	-40	52	-744	-1564	85	-3	407	268	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.201	1.00	Yes	0.785	0.139	0.93	Yes	1.00	**1.98**
		U_{37} - U_{38}	-----	-1386.27	144	-126	-1465	-956	41	23	325	233	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.205	1.00	Yes	0.789	0.131	0.92	Yes	1.00	**1.99**
		U_{38} - U_{39}	-----	-1632.43	185	-265	-727	-1262	129	-26	539	-68	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.147	1.00	Yes	0.838	0.105	0.95	Yes	1.00	**2.30**
		U_{39} - U_{40}	-----	-1562.46	-157	-328	-1523	-943	26	-12	441	92	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.185	1.00	Yes	0.802	0.126	0.93	Yes	1.00	**2.33**
		U_{40} - U_{41}	-----	-1459.98	-204	-330	-1167	-799	54	-99	393	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.154	1.00	Yes	0.831	0.104	0.94	Yes	1.00	**2.51**
		U_{41} - U_{42}	-----	-1221.22	-99	-158	-1139	-3	-72	-81	391	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.119	1.00	Yes	0.867	0.116	0.99	Yes	1.00	**2.86**
		U_{42} - U_{43}	-----	-858.78	-94	-68	-896	-187	-33	-71	331	-310	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.158	1.00	Yes	0.829	0.136	0.97	Yes	1.00	**3.07**
		U_{43} - U_{44}	-----	-528.77	56	-314	-1721	2154	-55	72	148	-1051	-----	-----	-----	-----	-----	-----	-----	-----	0.628	0.238	0.87	Yes	0.624	0.366	1.00	Yes	1.00	**4.79**
	Structure 3	U_0 - U_1	-----	-683.98	-25	-145	-211	-1108	9	-79	-158	-226	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.218	1.00	Yes	0.770	0.223	1.00	Yes	1.00	**7.22**
		U_1 - U_2	-----	-752.24	-38	-133	139	-662	-64	-234	-69	-218	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.138	1.00	Yes	0.846	0.133	0.98	Yes	1.00	**2.93**
		U_2 - U_3	-----	-1097.71	-79	-157	36	-659	-52	342	-121	184	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.122	1.00	Yes	0.859	0.107	0.97	Yes	1.00	**2.72**
		U_3 - U_4	-----	-1406.40	-191	-308	-380	-903	496	831	238	282	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.176	1.00	Yes	0.806	0.100	0.91	Yes	1.00	**2.57**
		U_4 - U_5	-----	-1485.30	-400	-52	-646	-548	690	232	343	169	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.135	1.00	Yes	0.851	0.071	0.93	Yes	1.00	**2.26**
		U_5 - U_6	-----	-1361.20	-188	-282	-579	-1395	142	-147	260	311	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.204	1.00	Yes	0.780	0.154	0.94	Yes	1.00	**1.80**
		U_6 - U_7	-----	-1378.12	-380	-107	-1475	-456	-88	-186	399	57	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.197	1.00	Yes	0.790	0.163	0.96	Yes	1.00	**1.84**
		U_7 - U_8	-----	-1318.75	-162	8	-515	-313	-61	-179	287	-269	-----	-----	-----	-----	-----	-----	-----	-----	0.892	0.101	1.00	Yes	0.881	0.071	0.96	Yes	1.00	**2.16**
		U_8 - U_9	-----	-927.38	-95	187	-728	10	-36	-156	266	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.878	0.111	0.99	Yes	0.870	0.121	1.00	Yes	1.00	**1.92**
		U_9 - U_{10}	-----	-640.35	-49	257	-808	202	-113	-110	222	-177	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.143	0.97	Yes	0.817	0.181	1.00	Yes	1.00	**2.58**
		U_{10} - U_{11}	739.09	-----	341	241	-563	265	-264	-162	353	-405	0.802	0.191	1.00	Yes	0.543	0.128	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.52**
		U_{11} - U_{12}	816.62	-----	-542	1574	-155	559	-211	-522	-217	-189	0.669	0.328	1.00	Yes	0.458	0.223	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.32**
		U_{12} - U_{13}	995.60	-----	1611	-261	554	12	-630	-371	-276	-270	0.690	0.308	1.00	Yes	0.481	0.210	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.27**
		U_{13} - U_{14}	881.27	-----	226	463	69	-96	-410	-212	-117	292	0.843	0.155	1.00	Yes	0.589	0.106	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.10**
		U_{14} - U_{15}	741.18	-----	484	358	306	-353	-144	-37	154	35	0.850	0.141	1.00	Yes	0.573	0.092	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		U_{15} - U_{16}	508.22	-566.58	397	280	-145	-838	-70	135	92	459	0.583	0.277	0.86	Yes	0.400	0.189	0.59	Yes	0.771	0.229	1.00	Yes	0.764	0.199	0.97	Yes	1.00	**2.91**
		U_{16} - U_{17}	505.15	-572.76	465	177	-618	-407	59	81	446	216	0.579	0.222	0.81	Yes	0.397	0.152	0.55	Yes	0.779	0.216	1.00	Yes	0.772	0.147	0.92	Yes	1.00	**2.92**
		U_{17} - U_{18}	303.35	-618.09	416	-37	-290	-481	-96	65	317	-19	0.348	0.168	0.52	Yes	0.235	0.110	0.35	Yes	0.841	0.155	1.00	Yes	0.833	0.114	0.95	Yes	1.00	**2.76**
		U_{18} - U_{19}	-----	-546.12	232	-28	-633	-334	-97	40	514	-17	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.256	1.00	Yes	0.736	0.150	0.89	Yes	1.00	**2.67**
		U_{19} - U_{20}	-----	-523.94	295	-457	-1088	1213	-215	238	413	-758	-----	-----	-----	-----	-----	-----	-----	-----	0.713	0.160	0.88	Yes	0.707	0.288	1.00	Yes	1.00	**4.91**

Axial AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Lower Chord	Structure 1	L_0 - L_1	333.77	-----	-132	-189	1105	-1318	50	185	-108	-396	0.511	0.481	1.00	Yes	0.301	0.293	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**21.85**
		L_1 - L_2	484.40	-----	160	-741	137	67	-154	-85	-24	-65	0.741	0.255	1.00	Yes	0.452	0.172	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.75**
		L_2 - L_3	720.92	-----	-468	-618	26	119	-97	-53	-41	47	0.829	0.165	1.00	Yes	0.480	0.099	0.58	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.37**
		L_3 - L_4	698.20	-----	-285	-755	114	344	-70	-76	87	73	0.803	0.196	1.00	Yes	0.477	0.127	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.74**
		L_4 - L_5	-----	-523.39	-741	479	110	601	-249	164	57	37	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.165	0.97	Yes	0.797	0.196	1.00	Yes	1.00	**2.15**
		L_5 - L_6	-----	-708.48	-91	219	157	584	382	120	70	120	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.167	1.00	Yes	0.817	0.129	0.95	Yes	1.00	**2.05**
		L_6 - L_7	-----	-1177.38	-180	274	-193	311	50	56	-3	119	-----	-----	-----	-----	-----	-----	-----	-----	0.958	0.033	1.00	Yes	0.948	0.049	1.00	Yes	1.00	**2.58**
		L_7 - L_8	-----	-1269.74	2	597	-21	1357	-64	-75	41	-1	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.181	1.00	Yes	0.804	0.180	0.99	Yes	1.00	**1.74**
		L_8 - L_9	-----	-1283.90	572	-33	1263	-55	-122	-146	-56	-57	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.171	1.00	Yes	0.813	0.167	0.99	Yes	1.00	**1.74**
		L_9 - L_{10}	-----	-1161.96	265	-152	397	-185	-99	27	89	-37	-----	-----	-----	-----	-----	-----	-----	-----	0.946	0.039	0.99	Yes	0.935	0.062	1.00	Yes	1.00	**2.85**
		L_{10} - L_{11}	-----	-544.46	229	-235	626	-317	238	106	77	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.108	0.95	Yes	0.830	0.166	1.00	Yes	1.00	**2.63**
		L_{11} - L_{12}	556.52	-----	488	-930	565	-112	19	-146	94	-35	0.721	0.272	1.00	Yes	0.432	0.179	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.29**
		L_{12} - L_{13}	1132.16	-----	-168	-505	219	-46	62	13	24	28	0.893	0.097	1.00	Yes	0.571	0.058	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.96**
		L_{13} - L_{14}	1293.46	-----	307	-1642	354	-443	-2	-143	10	-3	0.761	0.238	1.00	Yes	0.493	0.145	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.61**
		L_{14} - L_{15}	1540.87	-----	-1814	-298	-369	-27	-323	30	-120	-64	0.753	0.241	1.00	Yes	0.489	0.146	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.77**
		L_{15} - L_{16}	1713.25	-----	-989	-1104	-205	-352	18	-379	-129	-53	0.837	0.160	1.00	Yes	0.537	0.094	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.15**
		L_{16} - L_{17}	1164.91	-----	-1367	196	-412	93	-690	96	-97	-52	0.737	0.262	1.00	Yes	0.478	0.162	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.37**
		L_{17} - L_{18}	999.73	-----	-447	-98	-180	22	268	-28	-84	-18	0.871	0.120	1.00	Yes	0.557	0.073	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.49**
		L_{18} - L_{19}	410.26	-----	-536	395	-852	679	-121	170	-550	208	0.628	0.370	1.00	Yes	0.425	0.235	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.10**
		L_{19} - L_{20}	109.89	-463.57	-263	82	-530	259	106	24	145	33	0.168	0.189	0.36	Yes	0.103	0.127	0.23	Yes	0.842	0.117	0.96	Yes	0.835	0.159	1.00	Yes	1.00	**3.21**
	Structure 2	L_0 - L_1	410.26	-----	258	-955	875	-2152	38	132	-99	-345	0.498	0.495	1.00	Yes	0.296	0.318	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**15.10**
		L_1 - L_2	586.64	-----	549	-1329	129	-136	-94	-58	-62	-9	0.713	0.286	1.00	Yes	0.424	0.185	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.61**
		L_2 - L_3	1051.76	-----	140	-1063	-72	-101	-15	-25	62	83	0.829	0.162	1.00	Yes	0.544	0.096	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.59**
		L_3 - L_4	1405.39	-----	-9	-1283	14	-384	-40	-17	180	78	0.826	0.165	1.00	Yes	0.556	0.102	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		L_4 - L_5	1832.37	-----	-825	-1310	-386	-188	-68	-140	90	223	0.854	0.139	1.00	Yes	0.566	0.082	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.56**
		L_5 - L_6	1935.50	-----	-756	-1768	-125	-297	-116	-130	128	-17	0.830	0.165	1.00	Yes	0.557	0.100	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		L_6 - L_7	1936.51	-----	-1694	-1847	-378	-27	-95	197	-175	42	0.820	0.175	1.00	Yes	0.545	0.102	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.78**
		L_7 - L_8	1388.50	-----	-1563	-495	-186	342	-171	-296	-128	7	0.796	0.197	1.00	Yes	0.523	0.116	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		L_8 - L_9	1133.78	-----	-1095	189	-36	579	-176	538	-22	18	0.793	0.198	1.00	Yes	0.534	0.125	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.70**
		L_9 - L_{10}	758.65	-756.37	-1274	139	-56	822	89	-308	33	106	0.677	0.241	0.92	Yes	0.394	0.149	0.55	Yes	0.800	0.150	0.95	Yes	0.794	0.204	1.00	Yes	1.00	**3.27**
		L_{10} - L_{11}	-----	-758.89	-595	438	135	542	-405	187	68	0	-----	-----	-----	-----	-----	-----	-----	-----	0.897	0.097	1.00	Yes	0.891	0.104	1.00	Yes	1.00	**2.38**
		L_{11} - L_{12}	-----	-1016.18	-312	438	-523	1173	132	282	47	11	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.119	0.96	Yes	0.833	0.160	1.00	Yes	1.00	**2.17**
		L_{12} - L_{13}	-----	-1513.91	-400	-70	-385	-604	176	-94	69	108	-----	-----	-----	-----	-----	-----	-----	-----	0.913	0.081	1.00	Yes	0.906	0.060	0.97	Yes	1.00	**2.32**
		L_{13} - L_{14}	-----	-1505.77	-348	1243	-842	2667	-194	-335	-85	-284	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.179	0.95	Yes	0.758	0.233	1.00	Yes	1.00	**1.63**
		L_{14} - L_{15}	-----	-1515.12	1186	-425	2615	-939	-370	-252	-342	-187	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.172	0.95	Yes	0.762	0.228	1.00	Yes	1.00	**1.63**
		L_{15} - L_{16}	-----	-1524.61	-376	55	-854	80	-180	38	-110	41	-----	-----	-----	-----	-----	-----	-----	-----	0.920	0.073	1.00	Yes	0.912	0.085	1.00	Yes	1.00	**2.09**
		L_{16} - L_{17}	-----	-1126.98	689	-89	1379	-182	254	69	115	-90	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.148	0.98	Yes	0.821	0.170	1.00	Yes	1.00	**1.80**
		L_{17} - L_{18}	-----	-837.53	387	-142	710	-284	108	-31	-15	-110	-----	-----	-----	-----	-----	-----	-----	-----	0.886	0.082	0.97	Yes	0.879	0.114	1.00	Yes	1.00	**2.01**
		L_{18} - L_{19}	-----	-651.56	287	-159	641	197	18	129	-8	32	-----	-----	-----	-----	-----	-----	-----	-----	0.874	0.121	1.00	Yes	0.868	0.124	1.00	Yes	1.00	**2.59**
		L_{19} - L_{20}	-----	-655.28	322	-629	540	339	155	-90	40	-23	-----	-----	-----	-----	-----	-----	-----	-----	0.879	0.115	1.00	Yes	0.873	0.121	1.00	Yes	1.00	**3.29**
		L_{20} - L_{21}	996.21	-886.40	-260	-1129	787	371	-39	-33	-122	-116	0.794	0.178	0.98	Yes	0.521	0.106	0.63	Yes	0.837	0.130	0.97	Yes	0.832	0.165	1.00	Yes	1.00	**5.59**
		L_{21} - L_{22}	855.65	-435.49	-285	-1998	302	246	-36	-193	-83	-5	0.682	0.312	1.00	Yes	0.456	0.195	0.66	Yes	0.411	0.252	0.67	Yes	0.409	0.292	0.71	Yes	1.00	**3.14**
		L_{22} - L_{23}	852.78	-366.04	-1954	-399	228	273	-248	188	36	-22	0.680	0.312	1.00	Yes	0.455	0.195	0.66	Yes	0.346	0.252	0.60	Yes	0.343	0.285	0.63	Yes	1.00	**3.11**
		L_{23} - L_{24}	993.38	-695.70	-1198	-648	313	556	296	-89	41	121	0.792	0.207	1.00	Yes	0.519	0.124	0.65	Yes	0.657	0.197	0.86	Yes	0.653	0.175	0.83	Yes	1.00	**5.14**
		L_{24} - L_{25}	-----	-649.65	-533	53	333	286	-213	465	74	-40	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.124	1.00	Yes	0.866	0.103	0.97	Yes	1.00	**4.81**
		L_{25} - L_{26}	-----	-666.52	-339	54	145	531	142	-129	36	101	-----	-----	-----	-----	-----	-----	-----	-----	0.894	0.087	0.99	Yes	0.888	0.102	1.00	Yes	1.00	**4.34**
		L_{26} - L_{27}	-----	-845.53	-255	283	-452	655	-54	187	-208	133	-----	-----	-----	-----	-----	-----	-----	-----	0.894	0.068	0.97	Yes	0.888	0.105	1.00	Yes	1.00	**2.41**
		L_{27} - L_{28}	-----	-1156.74	-138	393	-310	1220	192	285	187	109	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.129	0.98	Yes	0.842	0.150	1.00	Yes	1.00	**2.18**
		L_{28} - L_{29}	-----	-1540.39	-25	-251	-121	-676	138	-38	-21	-25	-----	-----	-----	-----	-----	-----	-----	-----	0.929	0.067	1.00	Yes	0.921	0.067	0.99	Yes	1.00	**2.28**
		L_{29} - L_{30}	-----	-1538.82	-355	934	-893	2579	-91	-179	-72	-188	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.158	0.94	Yes	0.774	0.225	1.00	Yes	1.00	**1.82**
		L_{30} - L_{31}	-----	-1471.10	1167	-388	2914	-1028	-50	-45	-203	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.179	0.93	Yes	0.740	0.254	1.00	Yes	1.00	**2.19**
		L_{31} - L_{32}	-----	-1514.42	-108	-378	-819	-185	15	58	-39	2	-----	-----	-----	-----	-----	-----	-----	-----	0.914	0.085	1.00	Yes	0.906	0.081	0.99	Yes	1.00	**2.97**
		L_{32} - L_{33}	-----	-1009.02	283	-338	1256	-511	145	60	49	-110	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.112	0.95	Yes	0.827	0.171	1.00	Yes	1.00	**2.67**
		L_{33} - L_{34}	430.78	-758.87	227	-620	415	231	170	-54	-32	-88	0.430	0.131	0.57	Yes	0.252	0.082	0.34	Yes	0.897	0.061	0.96	Yes	0.891	0.108	1.00	Yes	1.00	**3.39**
		L_{34} - L_{35}	885.88	-825.70	-209	-641	795	125	-3	349	-30	45	0.791	0.169	0.96	Yes	0.460	0.104	0.57	Yes	0.873	0.127	1.00	Yes	0.867	0.127	1.00	Yes	1.00	**4.50**
		L_{35} - L_{36}	1186.80	-----	129	-1102	481	93	221	-33	89	-64	0.830	0.170	1.00	Yes	0.559	0.106	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		L_{36} - L_{37}	1411.58	-----	-439	-1600	336	66	-91	107	-100	-4	0.809	0.185	1.00	Yes	0.532	0.108	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.89**
		L_{37} - L_{38}	1907.00	-----	-1751	-1872	184	-301	-93	-335	7	-41	0.807	0.185	1.00	Yes	0.536	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		L_{38} - L_{39}	1874.70	-----	-1818	-1010	-200	-152	-115	457	-22	-21	0.804	0.190	1.00	Yes	0.540	0.117	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.32**
		L_{39} - L_{40}	1766.75	-----	-1419	-1027	-147	-288	23	-535	-43	-32	0.824	0.170	1.00	Yes	0.545	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.70**
		L_{40} - L_{41}	1330.39	-----	-1410	-87	-250	-62	-589	145	-43	-10	0.782	0.212	1.00	Yes	0.526	0.133	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.85**
		L_{41} - L_{42}	1010.57	-----	-1215	220	-105	-85	-112	-191	-18	9	0.796	0.196	1.00	Yes	0.522	0.117	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.25**
		L_{42} - L_{43}	585.91	-----	-1008	262	-98	-15	-118	454	17	-3	0.712	0.280	1.00	Yes	0.423	0.178	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.59**
		L_{43} - L_{44}	219.22	-473.17	-61	-17	-1567	540	-155	-45	643	188	0.266	0.424	0.70	Yes	0.158	0.270	0.43	Yes	0.680	0.268	0.95	Yes	0.676	0.319	1.00	Yes	1.00	**6.86**
	Structure 3	L_0 - L_1	449.50	-404.42	97	-348	597	-873	-30	-139	33	151	0.688	0.293	0.99	Yes	0.420	0.198	0.62	Yes	0.735	0.149	0.89	Yes	0.728	0.262	1.00	Yes	1.00	**5.90**
		L_1 - L_2	547.59	-----	238	-471	189	-199	-67	33	-25	24	0.838	0.155	1.00	Yes	0.567	0.097	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.08**
		L_2 - L_3	1018.65	-----	-45	-386	3	-169	234	254	8	-2	0.887	0.107	1.00	Yes	0.568	0.065	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.87**
		L_3 - L_4	1295.76	-----	118	-1182	58	-346	41	5	29	51	0.819	0.178	1.00	Yes	0.532	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.86**
		L_4 - L_5	1768.99	-----	-913	-959	-318	-208	-113	-175	75	107	0.864	0.128	1.00	Yes	0.555	0.075	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.69**
		L_5 - L_6	1556.03	-----	-296	-1893	-82	-345	-97	-139	142	78	0.760	0.238	1.00	Yes	0.494	0.144	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.96**
		L_6 - L_7	1291.97	-----	-1589	97	-402	242	-248	215	-185	20	0.760	0.240	1.00	Yes	0.492	0.147	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.59**
		L_7 - L_8	1116.52	-----	-533	-311	-67	151	169	4	-24	44	0.881	0.114	1.00	Yes	0.564	0.068	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		L_8 - L_9	533.22	-----	-886	339	-134	396	-319	371	-3	45	0.691	0.299	1.00	Yes	0.414	0.195	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.35**
		L_9 - L_{10}	-----	-541.87	-315	128	-489	636	249	115	164	128	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.090	0.93	Yes	0.826	0.168	1.00	Yes	1.00	**3.45**
		L_{10} - L_{11}	-----	-1144.89	-171	217	-313	439	33	-117	-53	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.932	0.035	0.97	Yes	0.922	0.069	1.00	Yes	1.00	**3.05**
		L_{11} - L_{12}	-----	-1256.60	-40	474	-73	1245	-169	-208	-234	-401	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.186	1.00	Yes	0.796	0.165	0.97	Yes	1.00	**1.88**
		L_{12} - L_{13}	-----	-1240.49	470	-23	1304	-60	-239	-214	-451	-278	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.200	1.00	Yes	0.786	0.173	0.96	Yes	1.00	**1.92**
		L_{13} - L_{14}	-----	-1179.92	129	-21	102	29	-250	-26	-191	80	-----	-----	-----	-----	-----	-----	-----	-----	0.961	0.035	1.00	Yes	0.950	0.020	0.98	Yes	1.00	**2.59**
		L_{14} - L_{15}	-----	-750.51	330	-158	572	171	100	-133	142	-29	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.125	1.00	Yes	0.866	0.127	1.00	Yes	1.00	**2.10**
		L_{15} - L_{16}	-----	-552.57	332	-511	421	198	-84	-110	-4	-47	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.147	1.00	Yes	0.842	0.135	0.98	Yes	1.00	**1.89**
		L_{16} - L_{17}	691.64	-393.84	-695	-419	471	74	23	179	113	-69	0.796	0.197	1.00	Yes	0.473	0.127	0.60	Yes	0.538	0.148	0.69	Yes	0.533	0.168	0.71	Yes	1.00	**3.07**
		L_{17} - L_{18}	709.55	-269.33	-622	-595	205	52	174	-89	-3	18	0.816	0.178	1.00	Yes	0.472	0.107	0.58	Yes	0.368	0.204	0.58	Yes	0.365	0.150	0.52	Yes	1.00	**3.51**
		L_{18} - L_{19}	424.28	-----	-806	85	169	-40	-279	462	67	-173	0.649	0.341	1.00	Yes	0.396	0.226	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.78**
		L_{19} - L_{20}	143.14	-----	-222	132	-1483	881	1550	421	1333	363	0.219	0.778	1.00	Yes	0.129	0.467	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**16.86**

Axial AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Verticals	Structure 1	$U_0 - L_0$			-----	-313.60	-38	66	-197	261	-76	-25	54	17	-----	-----	-----	-----	-----	-----	-----	-----	0.700	0.145	0.85	Yes	0.664	0.334	1.00	Yes	1.00	**1.92**
		$U_1 - L_1$			-----	-337.42	53	-42	-201	224	-13	-26	-82	6	-----	-----	-----	-----	-----	-----	-----	-----	0.737	0.102	0.84	Yes	0.714	0.286	1.00	Yes	1.00	**3.14**
		$U_2 - L_2$			158.46	-305.29	136	-152	-219	272	141	42	59	63	0.285	0.388	0.68	Yes	0.157	0.214	0.38	Yes	0.667	0.142	0.81	Yes	0.646	0.347	1.00	Yes	1.00	**4.63**
		$U_3 - L_3$			286.32	-----	225	-263	-257	298	344	103	203	141	0.515	0.481	1.00	Yes	0.283	0.264	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.36**
		$U_4 - L_4$			-----	-352.52	84	-84	193	-194	-343	-116	475	167	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.182	0.96	Yes	0.746	0.248	1.00	Yes	1.00	**3.02**
		$U_5 - L_5$			-----	-419.48	75	-91	239	-264	-59	-54	97	62	-----	-----	-----	-----	-----	-----	-----	-----	0.759	0.108	0.87	Yes	0.724	0.268	1.00	Yes	1.00	**1.96**
		$U_6 - L_6$			-----	-502.86	89	-87	229	-238	-87	-32	891	276	-----	-----	-----	-----	-----	-----	-----	-----	0.761	0.235	1.00	Yes	0.721	0.208	0.93	Yes	1.00	**1.80**
		$U_7 - L_7$			-----	-433.42	134	-151	306	-333	-168	32	209	71	-----	-----	-----	-----	-----	-----	-----	-----	0.724	0.142	0.87	Yes	0.669	0.328	1.00	Yes	1.00	**1.53**
		$U_8 - L_8$			-----	-1303.11	-14	9	-11	6	-101	4	563	119	-----	-----	-----	-----	-----	-----	-----	-----	0.941	0.054	1.00	Yes	0.903	0.003	0.91	Yes	1.00	**2.39**
		$U_9 - L_9$			-----	-650.81	-175	207	-412	473	-245	-97	-229	-174	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.128	0.91	Yes	0.735	0.263	1.00	Yes	1.00	**2.11**
		$U_{10} - L_{10}$			-----	-774.70	-124	104	-352	330	-744	-405	-570	-466	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.191	1.00	Yes	0.764	0.183	0.95	Yes	1.00	**2.63**
		$U_{11} - L_{11}$			-----	-660.57	-146	197	-385	487	-545	-375	-375	-370	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.170	0.97	Yes	0.769	0.226	1.00	Yes	1.00	**2.38**
		$U_{12} - L_{12}$			-----	-531.23	-126	121	-309	315	-330	-236	-107	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.150	0.92	Yes	0.729	0.269	1.00	Yes	1.00	**2.19**
		$U_{13} - L_{13}$			-----	-364.21	-81	100	-230	257	-173	-56	-1	-6	-----	-----	-----	-----	-----	-----	-----	-----	0.736	0.132	0.87	Yes	0.698	0.294	1.00	Yes	1.00	**1.73**
		$U_{14} - L_{14}$			-----	-365.68	-58	67	-137	158	-268	-88	448	67	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.175	1.00	Yes	0.774	0.201	0.98	Yes	1.00	**3.46**
		$U_{15} - L_{15}$			88.90	-292.78	-63	60	269	-291	-66	-48	282	201	0.160	0.453	0.62	Yes	0.088	0.249	0.34	Yes	0.656	0.217	0.88	Yes	0.620	0.372	1.00	Yes	1.00	**4.30**
		$U_{16} - L_{16}$			-----	-306.15	24	-27	213	-226	-80	-100	1094	-54	-----	-----	-----	-----	-----	-----	-----	-----	0.690	0.305	1.00	Yes	0.648	0.289	0.94	Yes	1.00	**2.26**
		$U_{17} - L_{17}$			-----	-436.79	56	-71	221	-243	-120	-108	202	-146	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.111	0.93	Yes	0.754	0.246	1.00	Yes	1.00	**1.85**
		$U_{18} - L_{18}$			-----	-537.22	137	-143	420	-439	-130	-114	215	-204	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.091	0.88	Yes	0.747	0.248	1.00	Yes	1.00	**2.02**
		$U_{19} - L_{19}$			-----	-632.07	163	-162	556	-533	-111	-41	252	-56	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.115	0.91	Yes	0.736	0.258	1.00	Yes	1.00	**2.30**
		$U_{20} - L_{20}$			-----	-583.45	158	-257	280	-474	25	3	595	78	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.227	1.00	Yes	0.679	0.220	0.90	Yes	1.00	**1.60**
	Structure 2	$U_0 - L_0$			-----	-693.32	-143	187	-487	598	-78	-13	36	6	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.118	0.95	Yes	0.743	0.254	1.00	Yes	1.00	**2.45**
		$U_1 - L_1$			-----	-723.61	-94	102	-477	509	-120	-27	-100	24	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.076	0.91	Yes	0.775	0.216	1.00	Yes	1.00	**2.86**
		$U_2 - L_2$			-----	-590.45	-82	93	-456	473	-95	-45	-9	-1	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.079	0.87	Yes	0.752	0.242	1.00	Yes	1.00	**2.49**
		$U_3 - L_3$			-----	-495.58	-42	49	-223	241	100	-46	-43	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.079	0.93	Yes	0.777	0.220	1.00	Yes	1.00	**2.17**
		$U_4 - L_4$			-----	-341.28	4	4	-203	210	284	85	-83	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.162	0.94	Yes	0.722	0.268	1.00	Yes	1.00	**2.29**
		$U_5 - L_5$			-----	-332.73	76	-71	-194	225	314	189	-47	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.752	0.210	0.97	Yes	0.704	0.288	1.00	Yes	1.00	**3.21**
		$U_6 - L_6$			271.47	-----	173	-193	-301	314	363	254	164	-39	0.488	0.507	1.00	Yes	0.269	0.279	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.75**
		$U_7 - L_7$			-----	-369.88	70	-82	91	-101	-67	-17	443	27	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.158	1.00	Yes	0.783	0.129	0.92	Yes	1.00	**3.27**
		$U_8 - L_8$			-----	-455.44	115	-127	370	-388	-62	-112	126	-58	-----	-----	-----	-----	-----	-----	-----	-----	0.660	0.111	0.78	Yes	0.656	0.339	1.00	Yes	1.00	**2.72**
		$U_9 - L_9$			-----	-697.61	199	-199	549	-584	-105	-119	1384	171	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.201	0.98	Yes	0.748	0.248	1.00	Yes	1.00	**2.82**
		$U_{10} - L_{10}$			-----	-787.61	182	-191	548	-583	-94	-115	337	-171	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.101	0.88	Yes	0.736	0.258	1.00	Yes	1.00	**2.79**
		$U_{11} - L_{11}$			-----	-827.89	185	-184	465	-491	-159	-44	345	4	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.123	0.96	Yes	0.774	0.217	1.00	Yes	1.00	**2.28**
		$U_{12} - L_{12}$			-----	-894.15	146	-118	505	-487	-126	30	207	202	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.101	0.96	Yes	0.775	0.216	1.00	Yes	1.00	**2.36**
		$U_{13} - L_{13}$			-----	-731.91	212	-217	565	-547	-146	6	342	84	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.177	1.00	Yes	0.706	0.270	0.98	Yes	1.00	**2.06**
		$U_{14} - L_{14}$			-----	-1255.79	95	-92	179	-178	-41	224	476	298	-----	-----	-----	-----	-----	-----	-----	-----	0.918	0.077	1.00	Yes	0.833	0.032	0.87	Yes	1.00	**2.38**
		$U_{15} - L_{15}$			-----	-696.85	-77	89	-666	661	-314	34	-34	60	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.162	0.94	Yes	0.672	0.319	1.00	Yes	1.00	**3.33**
		$U_{16} - L_{16}$			-----	-702.46	-61	33	-464	414	-820	-248	-603	-241	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.184	1.00	Yes	0.753	0.197	0.95	Yes	1.00	**2.40**
		$U_{17} - L_{17}$			-----	-637.64	-118	108	-540	531	-482	-305	-298	-302	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.155	0.95	Yes	0.742	0.251	1.00	Yes	1.00	**2.13**
		$U_{18} - L_{18}$			-----	-606.66	-112	100	-413	438	-274	-246	69	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.118	0.93	Yes	0.773	0.224	1.00	Yes	1.00	**1.93**
		$U_{19} - L_{19}$			-----	-481.14	-73	71	-288	291	-246	-149	-123	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.724	0.121	0.85	Yes	0.718	0.280	1.00	Yes	1.00	**2.37**
		$U_{20} - L_{20}$			-----	-382.86	-42	40	-215	226	-234	-132	-20	-99	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.142	0.93	Yes	0.733	0.259	1.00	Yes	1.00	**2.42**
		$U_{21} - L_{21}$			-----	-315.23	-30	32	-239	256	-219	-97	43	3	-----	-----	-----	-----	-----	-----	-----	-----	0.712	0.158	0.87	Yes	0.667	0.327	1.00	Yes	1.00	**2.74**
		$U_{22} - L_{22}$			-----	-380.37	4	-5	-14	20	-212	-84	502	74	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.139	1.00	Yes	0.805	0.026	0.84	Yes	1.00	**3.45**
		$U_{23} - L_{23}$			-----	-304.26	20	-25	261	-276	462	57	235	159	-----	-----	-----	-----	-----	-----	-----	-----	0.687	0.202	0.89	Yes	0.644	0.352	1.00	Yes	1.00	**3.41**
		$U_{24} - L_{24}$			-----	-340.88	43	-48	199	-215	-70	-7	1005	95	-----	-----	-----	-----	-----	-----	-----	-----	0.699	0.301	1.00	Yes	0.653	0.246	0.90	Yes	1.00	**2.07**
		$U_{25} - L_{25}$			-----	-470.15	53	-49	309	-306	-92	10	384	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.121	0.83	Yes	0.702	0.298	1.00	Yes	1.00	**2.25**
		$U_{26} - L_{26}$			-----	-592.49	99	-94	428	-466	-123	0	446	22	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.122	0.92	Yes	0.755	0.238	1.00	Yes	1.00	**2.00**
		$U_{27} - L_{27}$			-----	-629.45	96	-92	561	-564	-159	22	249	156	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.096	0.88	Yes	0.733	0.262	1.00	Yes	1.00	**2.17**
		$U_{28} - L_{28}$			-----	-682.97	55	-34	476	-454	-230	74	1114	158	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.206	1.00	Yes	0.732	0.202	0.94	Yes	1.00	**2.12**
		$U_{29} - L_{29}$			-----	-697.34	113	-136	666	-655	-215	33	487	104	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.220	1.00	Yes	0.672	0.319	1.00	Yes	1.00	**2.83**
		$U_{30} - L_{30}$			-----	-1241.29	-18	7	54	-88	-82	118	490	213	-----	-----	-----	-----	-----	-----	-----	-----	0.908	0.086	1.00	Yes	0.823	0.016	0.84	Yes	1.00	**2.61**
		$U_{31} - L_{31}$			-----	-742.82	-97	96	-582	578	-313	-19	-48	35	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.163	1.00	Yes	0.716	0.279	1.00	Yes	1.00	**2.94**
		$U_{32} - L_{32}$			-----	-838.55	-78	53	-434	393	-685	-264	-476	-235	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.189	1.00	Yes	0.727	0.186	0.92	Yes	1.00	**2.59**
		$U_{33} - L_{33}$			-----	-841.53	-120	105	-414	430	-434	-346	-29	-272	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.145	1.00	Yes	0.787	0.190	0.98	Yes	1.00	**2.56**
		$U_{34} - L_{34}$			-----	-805.92	-125	111	-503	540	-320	-333	-219	-388	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.126	0.93	Yes	0.754	0.238	1.00	Yes	1.00	**3.39**
		$U_{35} - L_{35}$			-----	-711.52	-148	144	-521	559	-122	-96	-32	-103	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.072	0.87	Yes	0.763	0.237	1.00	Yes	1.00	**3.16**
		$U_{36} - L_{36}$			-----	-474.33	-82	92	-340	358	89	71	105	35	-----	-----	-----	-----	-----	-----	-----	-----	0.688	0.102	0.79	Yes	0.683	0.313	1.00	Yes	1.00	**2.59**
		$U_{37} - L_{37}$			-----	-366.84	-61	72	-113	135	-104	-20	372	61	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.166	1.00	Yes	0.776	0.172	0.95	Yes	1.00	**3.25**
		$U_{38} - L_{38}$			301.12	-----	-230	254	258	-256	219	119	433	375	0.542	0.455	1.00	Yes	0.298	0.250	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.40**
		$U_{39} - L_{39}$			94.01	-278.39	-82	80	158	-184	61	0	1246	51	0.169	0.597	0.77	Yes	0.093	0.328	0.43	Yes	0.629	0.365	1.00	Yes	0.589	0.236	0.83	Yes	1.00	**2.99**
		$U_{40} - L_{40}$			-----	-339.17	-30	23	214	-217	14	-22	304	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.122	0.90	Yes	0.718	0.278	1.00	Yes	1.00	**2.41**
		$U_{41} - L_{41}$			-----	-487.71	12	-15	240	-254	10	-20	206	-122	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.086	0.92	Yes	0.765	0.231	1.00	Yes	1.00	**2.24**
		$U_{42} - L_{42}$			-----	-586.43	34	-44	472	-487	12	-27	269	-168	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.077	0.87	Yes	0.747	0.249	1.00	Yes	1.00	**2.40**
		$U_{43} - L_{43}$			-----	-703.13	52	-66	579	-576	-58	-58	336	92	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.107	0.92	Yes	0.754	0.246	1.00	Yes	1.00	**2.67**
		$U_{44} - L_{44}$			-----	-635.12	109	-121	282	-454	-161	-27	933	158	-----	-----	-----	-----	-----	-----	-----	-----	0.760	0.231	1.00	Yes	0.681	0.193	0.88	Yes	1.00	**1.98**
	Structure 3	$U_0 - L_0$			-----	-636.58	-134	180	-484	556	-59	-8	231	30	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.153	1.00	Yes	0.741	0.258	1.00	Yes	1.00	**2.74**
		$U_1 - L_1$			-----	-667.49	-104	116	-449	473	-119	-3	-19	128	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.081	0.92	Yes	0.777	0.220	1.00	Yes	1.00	**3.13**
		$U_2 - L_2$			-----	-543.05	-102	108	-404	423	-142	-43	21	26	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.088	0.89	Yes	0.755	0.239	1.00	Yes	1.00	**2.61**
		$U_3 - L_3$			-----	-449.17	-41	54	-197	219	50	-62	1	-21	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.083	0.93	Yes	0.775	0.222	1.00	Yes	1.00	**2.23**
		$U_4 - L_4$			-----	-331.47	-11	16	-219	233	232	50	-42	14	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.148	0.90	Yes	0.701	0.298	1.00	Yes	1.00	**2.70**
		$U_5 - L_5$			-----	-307.68	47	-45	-247	268	230	155	-4	19	-----	-----	-----	-----	-----	-----	-----	-----	0.690	0.185	0.88	Yes	0.651	0.342	1.00	Yes	1.00	**3.51**
		$U_6 - L_6$			-----	-369.34	43	-49	105	-112	-9	5	478	66	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.174	1.00	Yes	0.782	0.143	0.93	Yes	1.00	**3.42**
		$U_7 - L_7$			-----	-360.32	69	-82	247	-268	-8	-83	87	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.107	0.84	Yes	0.690	0.305	1.00	Yes	1.00	**2.13**
		$U_8 - L_8$			-----	-511.60	111	-108	308	-317	-61	-120	1120	217	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.256	1.00	Yes	0.702	0.271	0.98	Yes	1.00	**2.21**
		$U_9 - L_9$			-----	-651.26	130	-169	415	-512	-180	-136	239	-72	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.120	0.91	Yes	0.758	0.238	1.00	Yes	1.00	**2.41**
		$U_{10} - L_{10}$			-----	-797.08	118	-115	390	-401	-199	-93	383	84	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.128	0.96	Yes	0.786	0.208	1.00	Yes	1.00	**2.66**
		$U_{11} - L_{11}$			-----	-644.55	168	-193	429	-489	-111	-11	362	135	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.147	0.92	Yes	0.728	0.272	1.00	Yes	1.00	**1.96**
		$U_{12} - L_{12}$			-----	-1240.80	69	-97	100	-167	-30	64	818	327	-----	-----	-----	-----	-----	-----	-----	-----	0.896	0.100	1.00	Yes	0.860	0.031	0.90	Yes	1.00	**2.48**
		$U_{13} - L_{13}$			-----	-443.44	-70	81	-292	315	-209	-1	-28	45	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.144	0.89	Yes	0.684	0.310	1.00	Yes	1.00	**2.30**
		$U_{14} - L_{14}$			-----	-520.92	-47	28	-223	213	-680	-310	-497	-262	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.209	1.00	Yes	0.747	0.195	0.95	Yes	1.00	**2.48**
		$U_{15} - L_{15}$			-----	-439.00	-48	52	-228	239	-243	-173	-311	-269	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.155	0.95	Yes	0.757	0.242	1.00	Yes	1.00	**2.24**
		$U_{16} - L_{16}$			-----	-349.50	-69	68	-190	196	-407	-255	172	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.194	0.97	Yes	0.740	0.251	1.00	Yes	1.00	**3.05**
		$U_{17} - L_{17}$			309.43	-----	-269	310	203	-222	-26	99	-46	139	0.557	0.437	1.00	Yes	0.306	0.240	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.90**
		$U_{18} - L_{18}$			142.25	-248.64	-130	146	152	-197	-149	21	1605	371	0.256	0.717	0.98	Yes	0.141	0.394	0.54	Yes	0.543	0.450	1.00	Yes	0.526	0.252	0.78	Yes	1.00	**3.44**
		$U_{19} - L_{19}$			83.74	-311.53	-86	72	259	-241	-91	20	252	51	0.151	0.404	0.56	Yes	0.083	0.222	0.31	Yes	0.681	0.142	0.83	Yes	0.659	0.331	1.00	Yes	1.00	**2.74**
		$U_{20} - L_{20}$			-----	-308.05	13	-15	61	-169	-74	-24	674	216	-----	-----	-----	-----	-----	-----	-----	-----	0.688	0.305	1.00	Yes	0.652	0.216	0.87	Yes	1.00	**1.59**

Axial AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Diagonals	Structure 1	$U_0 - L_1$	631.34	-----	-126	73	-4	-11	-36	-94	19	49	0.828	0.171	1.00	Yes	0.500	0.094	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.57**
		$U_1 - L_2$	464.92	-170.05	-91	9	32	-25	-164	-120	35	21	0.836	0.164	1.00	Yes	0.460	0.090	0.55	Yes	0.390	0.150	0.55	Yes	0.360	0.116	0.48	Yes	1.00	**3.86**
		$U_2 - L_3$	-----	-333.95	-138	1	69	-35	-115	-125	75	56	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.222	1.00	Yes	0.707	0.176	0.89	Yes	1.00	**5.69**
		$U_3 - L_4$	-----	-323.13	-69	-111	11	-57	-153	-373	118	-90	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.256	1.00	Yes	0.684	0.142	0.83	Yes	1.00	**4.15**
		$U_4 - L_4$	572.23	-----	-86	41	-19	24	-304	-266	-38	-78	0.839	0.158	1.00	Yes	0.462	0.087	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		$U_5 - L_5$	620.87	-----	-150	255	-49	100	-632	-181	32	-33	0.734	0.260	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.05**
		$U_5 - L_6$	656.19	-----	-273	275	-80	107	-106	-214	348	185	0.776	0.220	1.00	Yes	0.427	0.121	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.13**
		$U_6 - L_7$	640.37	-----	-96	312	7	141	-271	-163	341	226	0.757	0.240	1.00	Yes	0.416	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.27**
		$U_8 - L_8$	918.16	-----	27	423	21	144	586	344	348	101	0.734	0.263	1.00	Yes	0.455	0.148	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.16**
		$U_9 - L_{10}$	968.86	-----	-263	305	-76	88	628	551	173	137	0.775	0.216	1.00	Yes	0.480	0.122	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.07**
		$U_{10} - L_{11}$	968.07	-----	-184	254	-60	100	401	463	-16	168	0.818	0.178	1.00	Yes	0.506	0.101	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.80**
		$U_{11} - L_{12}$	841.06	-----	-230	152	-72	47	355	364	-10	138	0.832	0.161	1.00	Yes	0.458	0.089	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.60**
		$U_{12} - L_{13}$	643.21	-----	-201	171	-79	65	161	71	-34	-17	0.784	0.207	1.00	Yes	0.493	0.116	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.20**
		$U_{13} - L_{14}$	457.45	-----	-106	30	-32	11	26	-60	-65	-112	0.823	0.168	1.00	Yes	0.453	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.18**
		$U_{15} - L_{14}$	-----	-213.71	-124	-90	39	-55	-876	-481	1	-20	-----	-----	-----	-----	-----	-----	-----	-----	0.501	0.491	1.00	Yes	0.452	0.158	0.62	Yes	1.00	**5.57**
		$U_{16} - L_{15}$	299.47	-----	-120	72	-11	-6	-1064	-213	-83	-81	0.539	0.461	1.00	Yes	0.296	0.253	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.52**
		$U_{17} - L_{16}$	492.32	-----	-139	90	-32	12	-579	-538	-105	-126	0.722	0.276	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.86**
		$U_{18} - L_{17}$	584.93	-----	-303	244	-109	73	-745	-524	-106	-112	0.692	0.307	1.00	Yes	0.380	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.00**
		$U_{19} - L_{18}$	643.24	-----	-339	250	-130	85	-760	-534	-61	-101	0.697	0.298	1.00	Yes	0.383	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.93**
		$U_{20} - L_{19}$	677.98	-----	-169	226	-93	90	-906	-381	-89	-34	0.734	0.264	1.00	Yes	0.404	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.14**
	Structure 2	$U_0 - L_1$	795.62	-----	-422	389	-96	81	-22	-70	-54	-30	0.787	0.206	1.00	Yes	0.433	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.98**
		$U_1 - L_2$	800.98	-----	-394	327	-72	51	-128	-43	-81	-6	0.792	0.202	1.00	Yes	0.436	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.04**
		$U_2 - L_3$	656.56	-----	-347	276	-62	46	-21	-17	1	111	0.776	0.217	1.00	Yes	0.427	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.56**
		$U_3 - L_4$	591.91	-----	-191	137	-24	4	-38	-45	134	75	0.789	0.202	1.00	Yes	0.434	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.47**
		$U_4 - L_5$	429.18	-----	-149	102	17	-25	-111	-12	105	-95	0.772	0.222	1.00	Yes	0.425	0.122	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.97**
		$U_5 - L_6$	426.57	-220.56	-139	61	67	-65	-71	3	11	-173	0.767	0.228	1.00	Yes	0.422	0.125	0.55	Yes	0.521	0.180	0.71	Yes	0.467	0.178	0.65	Yes	1.00	**4.26**
		$U_6 - L_7$	-----	-388.26	-114	-65	31	-110	-30	-197	127	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.165	1.00	Yes	0.744	0.130	0.88	Yes	1.00	**5.02**
		$U_8 - L_7$	523.63	-----	-227	70	-58	46	-629	-497	-142	-214	0.668	0.331	1.00	Yes	0.420	0.189	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		$U_8 - L_8$	610.64	-----	-310	196	-126	91	-1074	-457	-158	-170	0.661	0.335	1.00	Yes	0.364	0.184	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.05**
		$U_{10} - L_9$	757.73	-----	-320	202	-111	87	-614	-666	-110	-140	0.750	0.248	1.00	Yes	0.412	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		$U_{11} - L_{10}$	824.46	-----	-336	265	-105	135	-715	-542	142	14	0.751	0.240	1.00	Yes	0.413	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.06**
		$U_{12} - L_{11}$	874.46	-----	-343	365	-114	157	-334	-262	230	96	0.797	0.200	1.00	Yes	0.438	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.09**
		$U_{13} - L_{12}$	742.54	-----	-427	379	-143	146	-416	-239	374	157	0.735	0.261	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.79**
		$U_{14} - L_{13}$	720.89	-----	-265	415	-3	149	-563	-185	548	207	0.713	0.277	1.00	Yes	0.392	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.17**
		$U_{14} - L_{15}$	581.05	-----	-112	391	60	38	463	43	243	-62	0.687	0.305	1.00	Yes	0.378	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.38**
		$U_{15} - L_{16}$	628.74	-----	-374	358	-30	38	208	131	-66	-19	0.743	0.249	1.00	Yes	0.409	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.68**
		$U_{16} - L_{17}$	703.52	-----	-304	372	-38	80	40	242	-218	101	0.762	0.230	1.00	Yes	0.419	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.18**
		$U_{17} - L_{18}$	648.97	-----	-283	297	-48	80	184	327	-47	176	0.767	0.228	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.97**
		$U_{18} - L_{19}$	661.07	-----	-281	269	-23	78	323	255	86	115	0.782	0.218	1.00	Yes	0.430	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.78**
		$U_{19} - L_{20}$	599.04	-----	-207	174	-10	40	235	213	16	87	0.764	0.233	1.00	Yes	0.420	0.131	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.88**
		$U_{20} - L_{21}$	440.50	-----	-133	113	-11	24	129	50	-24	32	0.792	0.208	1.00	Yes	0.436	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.71**
		$U_{21} - L_{22}$	418.80	-----	-159	4	7	9	119	-12	-52	117	0.753	0.237	1.00	Yes	0.414	0.130	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.52**
		$U_{23} - L_{22}$	321.06	-----	-148	-30	-21	-55	-793	-447	-470	-144	0.577	0.419	1.00	Yes	0.318	0.230	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.19**
		$U_{24} - L_{23}$	333.40	-----	-109	85	-26	19	-879	-168	-284	-168	0.600	0.394	1.00	Yes	0.330	0.217	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.30**
		$U_{25} - L_{24}$	549.72	-----	-193	161	-17	66	-607	-598	193	91	0.701	0.297	1.00	Yes	0.386	0.169	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.51**
		$U_{26} - L_{25}$	616.75	-----	-270	252	-16	83	-623	-423	300	155	0.729	0.266	1.00	Yes	0.401	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.49**
		$U_{27} - L_{26}$	651.42	-----	-281	292	-39	81	-325	-241	261	119	0.770	0.224	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.05**
		$U_{28} - L_{27}$	647.30	-----	-298	353	-39	85	-660	-105	407	238	0.701	0.289	1.00	Yes	0.386	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.00**
		$U_{29} - L_{28}$	622.82	-----	-361	347	-51	61	-153	-253	287	149	0.736	0.257	1.00	Yes	0.405	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.21**
		$U_{30} - L_{29}$	578.59	-----	-142	365	52	73	-140	-60	604	236	0.684	0.316	1.00	Yes	0.376	0.174	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.69**
		$U_{30} - L_{31}$	704.89	-----	-170	481	33	59	515	78	283	-21	0.697	0.300	1.00	Yes	0.384	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.45**
		$U_{31} - L_{32}$	758.27	-----	-439	405	-60	69	251	149	-46	16	0.750	0.241	1.00	Yes	0.413	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.72**
		$U_{32} - L_{33}$	870.41	-----	-335	361	-55	97	97	327	-183	133	0.793	0.198	1.00	Yes	0.436	0.109	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.50**
		$U_{33} - L_{34}$	860.15	-----	-356	285	-54	97	271	431	33	243	0.784	0.210	1.00	Yes	0.431	0.115	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.99**
		$U_{34} - L_{35}$	808.07	-----	-327	227	-69	78	264	205	105	92	0.799	0.191	1.00	Yes	0.440	0.105	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.97**
		$U_{35} - L_{36}$	736.47	-----	-354	244	-90	81	127	46	18	2	0.798	0.202	1.00	Yes	0.439	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.87**
		$U_{36} - L_{37}$	595.42	-----	-237	108	-48	44	-17	-72	-53	-106	0.759	0.234	1.00	Yes	0.478	0.130	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
		$U_{38} - L_{37}$	-----	-364.79	8	-23	37	-91	-151	-128	-359	-92	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.208	1.00	Yes	0.699	0.104	0.81	Yes	1.00	**3.89**
		$U_{39} - L_{38}$	248.54	-194.23	-94	23	59	-56	-1412	-249	-34	-18	0.447	0.529	0.98	Yes	0.246	0.291	0.54	Yes	0.463	0.532	1.00	Yes	0.411	0.120	0.54	Yes	1.00	**3.69**
		$U_{40} - L_{39}$	370.36	-----	-137	87	26	-28	-498	-547	-37	-35	0.666	0.333	1.00	Yes	0.366	0.183	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.90**
		$U_{41} - L_{40}$	531.64	-----	-171	120	-8	-6	-640	-413	-71	-60	0.709	0.290	1.00	Yes	0.390	0.160	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.22**
		$U_{42} - L_{41}$	586.28	-----	-310	251	-34	19	-685	-478	-47	-46	0.693	0.300	1.00	Yes	0.381	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.25**
		$U_{43} - L_{42}$	716.02	-----	-384	303	-50	31	-735	-541	12	-31	0.708	0.288	1.00	Yes	0.390	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.42**
		$U_{44} - L_{43}$	729.21	-----	-198	285	-87	70	-958	-304	82	-18	0.721	0.276	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.53**
	Structure 3	$U_0 - L_1$	700.03	-----	-421	338	-108	89	28	-133	-64	-53	0.758	0.237	1.00	Yes	0.417	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		$U_1 - L_2$	731.52	-----	-345	270	-92	60	-176	-75	-127	-45	0.792	0.205	1.00	Yes	0.436	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.28**
		$U_2 - L_3$	663.70	-----	-352	270	-88	54	-16	-4	-47	80	0.785	0.214	1.00	Yes	0.432	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.07**
		$U_3 - L_4$	552.96	-----	-160	110	-24	5	3	-29	77	49	0.811	0.180	1.00	Yes	0.446	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.68**
		$U_4 - L_5$	432.24	-----	-149	103	-2	-14	-94	-53	52	-106	0.777	0.221	1.00	Yes	0.428	0.121	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
		$U_5 - L_6$	402.56	-208.41	-161	-61	39	-54	-149	-164	-37	-216	0.724	0.269	1.00	Yes	0.398	0.148	0.55	Yes	0.488	0.313	0.81	Yes	0.441	0.206	0.65	Yes	1.00	**5.83**
		$U_7 - L_6$	411.62	-----	-100	14	-26	7	-444	-366	-151	-198	0.740	0.256	1.00	Yes	0.407	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.47**
		$U_8 - L_7$	535.11	-----	-181	141	-70	49	-949	-373	-198	-184	0.652	0.344	1.00	Yes	0.410	0.198	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.07**
		$U_9 - L_8$	788.73	-----	-233	126	-70	39	-684	-716	-62	-136	0.780	0.215	1.00	Yes	0.429	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.42**
		$U_{10} - L_9$	954.83	-----	-205	232	-62	77	-632	-545	40	-58	0.807	0.190	1.00	Yes	0.499	0.108	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.75**
		$U_{11} - L_{10}$	998.91	-----	-283	308	-82	88	-480	-356	217	84	0.799	0.198	1.00	Yes	0.495	0.112	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.85**
		$U_{12} - L_{11}$	948.61	-----	-92	364	-4	129	-589	-341	211	139	0.758	0.237	1.00	Yes	0.470	0.134	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.90**
		$U_{12} - L_{13}$	624.33	-----	-19	367	38	84	260	10	199	-27	0.738	0.256	1.00	Yes	0.406	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.37**
		$U_{13} - L_{14}$	671.97	-----	-275	305	-18	67	172	154	-25	22	0.794	0.205	1.00	Yes	0.437	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.24**
		$U_{14} - L_{15}$	670.29	-----	-134	274	-22	67	108	253	-59	75	0.792	0.202	1.00	Yes	0.436	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.69**
		$U_{15} - L_{16}$	581.61	-----	-82	55	-10	26	145	241	6	95	0.853	0.139	1.00	Yes	0.469	0.077	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.50**
		$U_{17} - L_{16}$	-----	-334.19	-60	-105	16	-48	-406	-181	-109	109	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.231	1.00	Yes	0.707	0.135	0.85	Yes	1.00	**4.35**
		$U_{18} - L_{17}$	-----	-257.76	-80	-12	55	-29	-1077	-215	274	182	-----	-----	-----	-----	-----	-----	-----	-----	0.593	0.402	1.00	Yes	0.545	0.103	0.65	Yes	1.00	**3.59**
		$U_{19} - L_{18}$	382.62	-183.86	-102	21	36	-24	-615	-559	249	194	0.688	0.309	1.00	Yes	0.378	0.170	0.55	Yes	0.422	0.318	0.74	Yes	0.389	0.131	0.52	Yes	1.00	**2.92**
		$U_{20} - L_{19}$	582.70	-----	26	23	-15	-11	-802	-469	204	209	0.764	0.232	1.00	Yes	0.462	0.128	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.10**

Axial AB Inventory

Inventory Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 2.167 1.625

| | | | Vehicle | Pedestrian | Axial Force | | ZZ Axis Bending | | | | YY Axis Bending | | | | Tension | | | | | | | | Compression | | | | | | | |

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
Center Truss - Lower Chord	Structure 1	L_0 - L_1	128.25	-----	1064	-1466	688	-1030	-461	-1693	-235	-864	0.196	0.803	1.00	Yes	0.116	0.481	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**20.36**
		L_1 - L_2	446.58	-----	-38	-688	37	89	-497	228	54	1	0.683	0.313	1.00	Yes	0.417	0.206	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.66**
		L_2 - L_3	711.91	-----	-611	-561	28	174	200	-165	0	-17	0.819	0.180	1.00	Yes	0.474	0.107	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.90**
		L_3 - L_4	649.47	-290.75	-307	-928	82	324	-121	89	-19	-1	0.747	0.244	1.00	Yes	0.444	0.158	0.61	Yes	0.397	0.222	0.62	Yes	0.394	0.224	0.62	Yes	1.00	**3.98**
		L_4 - L_5	-----	-536.86	-675	284	103	495	-197	16	172	-109	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.144	0.97	Yes	0.818	0.179	1.00	Yes	1.00	**3.19**
		L_5 - L_6	-----	-736.50	-283	197	145	568	198	153	29	95	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.135	1	Yes	0.850	0.126	0.98	Yes	1.00	**3.22**
		L_6 - L_7	-----	-1205.24	-54	102	-134	122	117	-42	156	-6	-----	-----	-----	-----	-----	-----	-----	-----	0.981	0.018	1	Yes	0.970	0.021	1.00	Yes	1.00	**3.69**
		L_7 - L_8	-----	-1254.17	-33	583	-99	1465	41	72	107	155	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.194	1	Yes	0.794	0.194	0.99	Yes	1.00	**2.42**
		L_8 - L_9	-----	-1269.01	554	-47	1382	-101	37	-14	122	54	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.178	1	Yes	0.804	0.183	0.99	Yes	1.00	**2.50**
		L_9 - L_{10}	-----	-1177.34	195	-164	312	-252	24	9	188	65	-----	-----	-----	-----	-----	-----	-----	-----	0.958	0.033	1	Yes	0.948	0.049	1.00	Yes	1.00	**4.32**
		L_{10} - L_{11}	-----	-543.23	236	-518	647	-364	18	-142	96	87	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.090	0.93	Yes	0.828	0.171	1.00	Yes	1.00	**4.17**
		L_{11} - L_{12}	589.12	-----	263	-750	389	-166	-186	174	-15	8	0.763	0.231	1.00	Yes	0.458	0.151	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.21**
		L_{12} - L_{13}	1128.55	-----	-297	-468	109	-78	7	-179	-15	-35	0.891	0.104	1.00	Yes	0.570	0.062	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.39**
		L_{13} - L_{14}	1271.47	-----	227	-1614	231	-391	-250	119	-105	61	0.748	0.243	1.00	Yes	0.484	0.149	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.38**
		L_{14} - L_{15}	1608.33	-----	-1552	-498	-344	-81	-313	112	-68	-51	0.786	0.209	1.00	Yes	0.511	0.127	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.79**
		L_{15} - L_{16}	1705.52	-----	-960	-1169	-184	-390	321	227	-79	10	0.833	0.163	1.00	Yes	0.535	0.096	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.70**
		L_{16} - L_{17}	1251.27	-----	-1219	74	-392	33	-259	-76	-35	-63	0.791	0.202	1.00	Yes	0.513	0.124	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.46**
		L_{17} - L_{18}	939.85	-----	-712	146	-175	-64	-227	-316	-5	25	0.818	0.178	1.00	Yes	0.524	0.107	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.89**
		L_{18} - L_{19}	494.45	-----	-623	288	-251	183	-29	-236	10	-3	0.757	0.236	1.00	Yes	0.512	0.148	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.21**
		L_{19} - L_{20}	256.25	-----	-1108	489	-1595	929	-68	-15	575	129	0.392	0.598	1.00	Yes	0.239	0.399	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.17**
	Structure 2	L_0 - L_1	75.30	-----	1224	-3189	663	-2076	-438	-1522	-216	-749	0.091	0.899	1.00	Yes	0.054	0.570	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**18.24**
		L_1 - L_2	570.24	-----	383	-1159	125	-128	-423	226	82	84	0.693	0.305	1.00	Yes	0.412	0.195	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.78**
		L_2 - L_3	1067.90	-----	-73	-884	-26	-93	241	-87	115	173	0.842	0.153	1.00	Yes	0.552	0.092	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.41**
		L_3 - L_4	1411.84	-----	-55	-1292	43	-256	-167	183	49	128	0.830	0.166	1.00	Yes	0.559	0.103	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.99**
		L_4 - L_5	1832.36	-----	-1038	-1284	-207	-161	237	-80	15	-13	0.854	0.137	1.00	Yes	0.566	0.082	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.16**
		L_5 - L_6	1933.99	-----	-792	-1602	-10	-247	-353	177	-92	56	0.830	0.164	1.00	Yes	0.557	0.101	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.90**
		L_6 - L_7	1955.80	-----	-1687	-1619	-303	-5	255	21	55	-33	0.828	0.164	1.00	Yes	0.550	0.096	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		L_7 - L_8	1367.48	-----	-1495	-446	-145	305	-604	-245	-60	80	0.784	0.215	1.00	Yes	0.515	0.128	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.17**
		L_8 - L_9	1119.16	-----	-1030	-49	-73	536	196	828	49	-141	0.783	0.217	1.00	Yes	0.527	0.138	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.51**
		L_9 - L_{10}	785.25	-744.00	-1323	166	-21	706	372	-140	-42	6	0.701	0.256	0.96	Yes	0.408	0.159	0.57	Yes	0.787	0.162	0.95	Yes	0.781	0.212	1.00	Yes	1.00	**4.46**
		L_{10} - L_{11}	-----	-734.41	-768	489	38	568	-211	-142	127	-47	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.104	0.98	Yes	0.863	0.134	1.00	Yes	1.00	**3.09**
		L_{11} - L_{12}	-----	-1001.85	-521	695	-683	1283	-327	-236	-26	19	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.123	0.96	Yes	0.822	0.175	1.00	Yes	1.00	**2.92**
		L_{12} - L_{13}	-----	-1481.89	-264	-266	-425	-845	64	-73	43	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.894	0.105	1	Yes	0.886	0.084	0.98	Yes	1.00	**3.16**
		L_{13} - L_{14}	-----	-1463.33	-488	1434	-1077	2960	-78	-111	-60	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.176	0.92	Yes	0.736	0.258	1.00	Yes	1.00	**2.10**
		L_{14} - L_{15}	-----	-1476.47	1394	-536	2887	-1117	-127	-109	-80	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.750	0.169	0.92	Yes	0.743	0.252	1.00	Yes	1.00	**2.03**
		L_{15} - L_{16}	-----	-1492.00	-431	-54	-1036	-119	-66	-36	-12	-25	-----	-----	-----	-----	-----	-----	-----	-----	0.900	0.097	1	Yes	0.892	0.103	1.00	Yes	1.00	**2.84**
		L_{16} - L_{17}	-----	-1129.11	612	-64	1389	-272	22	-4	41	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.131	0.97	Yes	0.822	0.171	1.00	Yes	1.00	**2.62**
		L_{17} - L_{18}	-----	-838.92	431	-391	735	-360	-106	78	128	153	-----	-----	-----	-----	-----	-----	-----	-----	0.887	0.091	0.98	Yes	0.881	0.118	1.00	Yes	1.00	**3.19**
		L_{18} - L_{19}	-----	-659.43	279	-433	586	144	104	-66	-12	-51	-----	-----	-----	-----	-----	-----	-----	-----	0.884	0.093	0.98	Yes	0.879	0.113	1.00	Yes	1.00	**3.20**
		L_{19} - L_{20}	-----	-652.67	200	-674	480	284	-171	142	-70	-21	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.111	0.99	Yes	0.870	0.130	1.00	Yes	1.00	**3.99**
		L_{20} - L_{21}	1061.39	-814.89	-538	-896	593	259	8	-206	15	-64	0.846	0.153	1.00	Yes	0.555	0.091	0.65	Yes	0.770	0.127	0.9	Yes	0.765	0.131	0.90	Yes	1.00	**5.72**
		L_{21} - L_{22}	920.21	-495.44	-351	-1552	307	107	-258	317	-44	-37	0.734	0.261	1.00	Yes	0.491	0.164	0.66	Yes	0.468	0.195	0.67	Yes	0.465	0.227	0.70	Yes	1.00	**3.96**
		L_{22} - L_{23}	931.80	-----	-1514	-559	120	260	-263	114	82	-65	0.743	0.249	1.00	Yes	0.497	0.156	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.02**
		L_{23} - L_{24}	992.87	-701.93	-1087	-609	192	423	380	277	27	63	0.792	0.200	1.00	Yes	0.519	0.120	0.64	Yes	0.663	0.191	0.86	Yes	0.659	0.159	0.82	Yes	1.00	**5.32**
		L_{24} - L_{25}	425.04	-626.75	-831	217	210	464	-163	34	133	-134	0.481	0.185	0.67	Yes	0.285	0.118	0.41	Yes	0.840	0.118	0.96	Yes	0.835	0.160	1.00	Yes	1.00	**4.16**
		L_{25} - L_{26}	-----	-667.71	-550	385	133	545	3	71	18	74	-----	-----	-----	-----	-----	-----	-----	-----	0.895	0.084	0.98	Yes	0.890	0.106	1.00	Yes	1.00	**3.67**
		L_{26} - L_{27}	-----	-819.44	-364	422	-706	856	28	-171	86	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.078	0.95	Yes	0.860	0.137	1.00	Yes	1.00	**3.75**
		L_{27} - L_{28}	-----	-1133.40	-98	535	-353	1415	29	109	66	145	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.135	0.97	Yes	0.825	0.175	1.00	Yes	1.00	**2.97**
		L_{28} - L_{29}	-----	-1464.85	-130	-363	-240	-1010	121	16	169	7	-----	-----	-----	-----	-----	-----	-----	-----	0.883	0.109	1	Yes	0.876	0.100	0.98	Yes	1.00	**2.96**
		L_{29} - L_{30}	-----	-1467.58	-484	1306	-1112	2901	21	13	15	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.164	0.91	Yes	0.738	0.253	1.00	Yes	1.00	**2.16**
		L_{30} - L_{31}	-----	-1465.80	1334	-471	2987	-1103	-6	-18	-42	-44	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.172	0.92	Yes	0.738	0.261	1.00	Yes	1.00	**2.19**
		L_{31} - L_{32}	-----	-1486.91	-295	-163	-915	-332	5	15	-5	-17	-----	-----	-----	-----	-----	-----	-----	-----	0.897	0.099	1	Yes	0.889	0.091	0.99	Yes	1.00	**3.21**
		L_{32} - L_{33}	-----	-1002.69	620	-568	1271	-486	78	-29	164	-109	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.120	0.95	Yes	0.822	0.173	1.00	Yes	1.00	**2.89**
		L_{33} - L_{34}	-----	-741.72	465	-720	536	117	-22	190	1	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.877	0.103	0.98	Yes	0.871	0.126	1.00	Yes	1.00	**3.02**
		L_{34} - L_{35}	797.97	-789.01	26	-1070	778	23	181	-142	4	-52	0.712	0.193	0.91	Yes	0.415	0.120	0.54	Yes	0.834	0.105	0.94	Yes	0.829	0.171	1.00	Yes	1.00	**4.48**
		L_{35} - L_{36}	1165.42	-----	95	-992	576	2	-441	247	-78	0	0.815	0.175	1.00	Yes	0.549	0.111	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.96**
		L_{36} - L_{37}	1407.33	-----	-436	-1499	410	-7	305	34	13	-18	0.807	0.191	1.00	Yes	0.530	0.112	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.45**
		L_{37} - L_{38}	1907.61	-----	-1524	-1665	114	-367	-725	-182	-47	47	0.807	0.191	1.00	Yes	0.537	0.114	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.87**
		L_{38} - L_{39}	1855.64	-----	-1660	-1164	-289	-53	287	854	-5	-67	0.796	0.201	1.00	Yes	0.534	0.125	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.84**
		L_{39} - L_{40}	1756.52	-----	-1607	-768	-197	-376	360	-122	-61	-6	0.819	0.176	1.00	Yes	0.542	0.105	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.29**
		L_{40} - L_{41}	1417.69	-----	-1216	-85	-343	3	-289	-146	-1	3	0.833	0.165	1.00	Yes	0.561	0.103	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.58**
		L_{41} - L_{42}	1036.08	-----	-1036	114	-140	-129	-257	-292	80	191	0.817	0.181	1.00	Yes	0.535	0.108	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.27**
		L_{42} - L_{43}	574.68	-----	-1214	393	-249	139	-163	284	245	115	0.698	0.294	1.00	Yes	0.415	0.188	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.06**
		L_{43} - L_{44}	214.36	-----	-2256	717	-2676	898	-899	-263	1143	334	0.260	0.732	1.00	Yes	0.155	0.465	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**21.64**
	Structure 3	L_0 - L_1	66.76	-----	-29	-21	1351	-2369	5	24	-190	-860	0.102	0.889	1.00	Yes	0.062	0.594	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**22.24**
		L_1 - L_2	451.40	-----	386	-804	146	-165	-290	298	36	59	0.691	0.303	1.00	Yes	0.467	0.191	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.81**
		L_2 - L_3	958.75	-----	-12	-627	-25	-135	304	-45	86	127	0.835	0.160	1.00	Yes	0.534	0.097	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.10**
		L_3 - L_4	1291.35	-----	18	-1108	41	-294	-176	196	30	120	0.817	0.180	1.00	Yes	0.530	0.111	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.57**
		L_4 - L_5	1762.13	-----	-1069	-792	-269	-125	88	-136	28	14	0.861	0.138	1.00	Yes	0.553	0.081	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.08**
		L_5 - L_6	1583.28	-----	-345	-1619	-35	-311	-226	375	-62	137	0.774	0.221	1.00	Yes	0.503	0.134	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.84**
		L_6 - L_7	1327.07	-----	-1418	-5	-343	213	-221	176	5	-34	0.780	0.214	1.00	Yes	0.506	0.131	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.72**
		L_7 - L_8	1088.00	-----	-549	-342	-78	76	337	329	-30	52	0.859	0.137	1.00	Yes	0.549	0.083	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.12**
		L_8 - L_9	572.25	-----	-854	332	-177	398	-144	-21	71	-86	0.741	0.251	1.00	Yes	0.445	0.165	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.23**
		L_9 - L_{10}	-----	-536.50	-610	332	-445	675	-39	8	-52	-13	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.078	0.91	Yes	0.817	0.179	1.00	Yes	1.00	**4.47**
		L_{10} - L_{11}	-----	-1174.29	-193	194	-301	326	74	-128	8	-297	-----	-----	-----	-----	-----	-----	-----	-----	0.956	0.030	0.99	Yes	0.945	0.051	1.00	Yes	1.00	**4.51**
		L_{11} - L_{12}	-----	-1266.34	-55	534	-122	1405	-84	-98	-134	-198	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.187	1	Yes	0.802	0.186	0.99	Yes	1.00	**2.63**
		L_{12} - L_{13}	-----	-1240.05	557	-34	1429	-98	-129	-138	-212	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.196	1	Yes	0.785	0.189	0.98	Yes	1.00	**2.40**
		L_{13} - L_{14}	-----	-1194.95	92	-36	77	-69	-87	-75	-71	-85	-----	-----	-----	-----	-----	-----	-----	-----	0.973	0.018	1	Yes	0.962	0.014	0.98	Yes	1.00	**3.62**
		L_{14} - L_{15}	-----	-745.06	210	-217	571	146	-33	-143	-31	-88	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.126	1	Yes	0.860	0.126	0.99	Yes	1.00	**3.28**
		L_{15} - L_{16}	-----	-541.78	294	-626	469	154	-173	344	-3	-80	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.161	1	Yes	0.825	0.166	1.00	Yes	1.00	**3.19**
		L_{16} - L_{17}	703.76	-276.18	-636	-498	383	40	-224	43	57	-81	0.810	0.190	1.00	Yes	0.481	0.122	0.61	Yes	0.377	0.205	0.59	Yes	0.374	0.154	0.53	Yes	1.00	**4.22**
		L_{17} - L_{18}	693.70	-----	-618	-709	118	-44	177	113	42	102	0.798	0.200	1.00	Yes	0.462	0.120	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.24**
		L_{18} - L_{19}	452.73	-----	-845	65	47	15	-119	239	52	-73	0.693	0.305	1.00	Yes	0.423	0.204	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.45**
		L_{19} - L_{20}	24.74	-----	-97	-7	-2059	1772	-61	-17	1571	428	0.038	0.955	1.00	Yes	0.022	0.576	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**35.22**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression											
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
DL Factor:	Vehicle 1.300	Pedestrian 1.300	Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
LL Factor:	2.167	1.625	(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-328.25	1	18	-122	196	-69	-22	-545	-175	-----	-----	-----	-----	-----	-----	-----	-----	0.733	0.262	1	Yes	0.695	0.251	0.95	Yes	1.00	**2.46**
		$U_1 - L_1$	-----	-333.90	56	-52	-217	224	107	41	-117	-49	-----	-----	-----	-----	-----	-----	-----	-----	0.730	0.114	0.85	Yes	0.707	0.287	1.00	Yes	1.00	**4.35**
		$U_2 - L_2$	137.45	-310.25	121	-136	-214	265	97	9	62	101	0.247	0.368	0.62	Yes	0.136	0.203	0.34	Yes	0.678	0.136	0.82	Yes	0.656	0.339	1.00	Yes	1.00	**5.83**
		$U_3 - L_3$	238.65	-----	201	-235	-350	375	-251	-246	25	285	0.429	0.562	1.00	Yes	0.236	0.309	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.85**
		$U_4 - L_4$	-----	-373.79	54	-55	159	-162	-160	-74	-93	-42	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.097	0.92	Yes	0.791	0.207	1.00	Yes	1.00	**2.92**
		$U_5 - L_5$	-----	-421.73	59	-66	246	-260	-150	-46	-95	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.763	0.105	0.87	Yes	0.728	0.263	1.00	Yes	1.00	**2.32**
		$U_6 - L_6$	-----	-465.37	72	-72	194	-210	-135	0	1130	418	-----	-----	-----	-----	-----	-----	-----	-----	0.705	0.289	1	Yes	0.667	0.184	0.86	Yes	1.00	**1.98**
		$U_7 - L_7$	-----	-436.34	119	-132	303	-328	-130	46	0	99	-----	-----	-----	-----	-----	-----	-----	-----	0.729	0.125	0.86	Yes	0.673	0.323	1.00	Yes	1.00	**1.84**
		$U_8 - L_8$	-----	-1343.28	-27	28	-11	12	-220	-68	-219	-92	-----	-----	-----	-----	-----	-----	-----	-----	0.970	0.022	1	Yes	0.931	0.005	0.94	Yes	1.00	**2.61**
		$U_9 - L_9$	-----	-654.92	-176	203	-400	462	-245	-171	-315	-253	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.146	0.93	Yes	0.740	0.257	1.00	Yes	1.00	**2.54**
		$U_{10} - L_{10}$	-----	-816.92	-115	115	-359	348	-203	-146	-318	-256	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.114	0.97	Yes	0.806	0.186	1.00	Yes	1.00	**3.71**
		$U_{11} - L_{11}$	-----	-666.64	-118	161	-370	462	-140	-32	-157	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.091	0.9	Yes	0.776	0.214	1.00	Yes	1.00	**3.27**
		$U_{12} - L_{12}$	-----	-534.03	-103	102	-298	306	-125	5	-100	63	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.089	0.87	Yes	0.733	0.262	1.00	Yes	1.00	**2.99**
		$U_{13} - L_{13}$	-----	-368.98	-64	78	-238	257	-106	45	-80	107	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.102	0.85	Yes	0.707	0.293	1.00	Yes	1.00	**2.30**
		$U_{14} - L_{14}$	-----	-399.28	-39	45	-96	111	-149	-49	-189	-37	-----	-----	-----	-----	-----	-----	-----	-----	0.891	0.099	1	Yes	0.845	0.141	0.99	Yes	1.00	**3.48**
		$U_{15} - L_{15}$	54.26	-296.15	-45	44	276	-284	-156	-89	-94	-226	0.098	0.429	0.53	Yes	0.054	0.236	0.29	Yes	0.664	0.180	0.85	Yes	0.627	0.364	1.00	Yes	1.00	**4.65**
		$U_{16} - L_{16}$	-----	-283.62	19	-22	165	-181	-167	-116	1455	9	-----	-----	-----	-----	-----	-----	-----	-----	0.639	0.360	1	Yes	0.600	0.231	0.84	Yes	1.00	**2.87**
		$U_{17} - L_{17}$	-----	-436.27	43	-55	217	-236	-170	-99	41	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.131	0.95	Yes	0.753	0.239	1.00	Yes	1.00	**2.71**
		$U_{18} - L_{18}$	-----	-534.59	116	-121	423	-441	-158	-63	64	-9	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.093	0.88	Yes	0.744	0.250	1.00	Yes	1.00	**3.19**
		$U_{19} - L_{19}$	-----	-649.46	130	-143	482	-508	-69	3	362	147	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.148	0.96	Yes	0.756	0.236	1.00	Yes	1.00	**3.62**
		$U_{20} - L_{20}$	-----	-598.09	163	-209	404	-503	17	2	544	71	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.200	1	Yes	0.696	0.233	0.93	Yes	1.00	**2.70**
	Structure 2	$U_0 - L_0$	-----	-648.32	-94	155	-403	522	-274	-46	-787	-133	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.216	1	Yes	0.695	0.221	0.92	Yes	1.00	**2.44**
		$U_1 - L_1$	-----	-701.73	-87	94	-470	511	58	-71	-866	-285	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.196	1	Yes	0.752	0.217	0.97	Yes	1.00	**3.30**
		$U_2 - L_2$	-----	-593.09	-48	57	-446	472	133	52	-702	-196	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.176	0.97	Yes	0.756	0.242	1.00	Yes	1.00	**3.42**
		$U_3 - L_3$	-----	-487.62	-24	29	-215	237	41	146	-509	-166	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.167	1	Yes	0.765	0.216	0.99	Yes	1.00	**3.16**
		$U_4 - L_4$	-----	-341.62	17	-9	-205	212	-42	101	40	238	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.127	0.91	Yes	0.723	0.271	1.00	Yes	1.00	**3.62**
		$U_5 - L_5$	-----	-336.51	79	-76	-190	219	-97	1	4	245	-----	-----	-----	-----	-----	-----	-----	-----	0.760	0.128	0.89	Yes	0.712	0.279	1.00	Yes	1.00	**4.94**
		$U_6 - L_6$	234.90	-----	139	-147	-257	266	-815	-113	39	308	0.422	0.575	1.00	Yes	0.232	0.316	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.02**
		$U_7 - L_7$	-----	-281.53	79	-93	119	-135	-114	-24	-1184	-119	-----	-----	-----	-----	-----	-----	-----	-----	0.636	0.359	1	Yes	0.596	0.173	0.77	Yes	1.00	**3.35**
		$U_8 - L_8$	-----	-459.27	113	-125	371	-383	-166	-113	-643	-478	-----	-----	-----	-----	-----	-----	-----	-----	0.666	0.224	0.89	Yes	0.662	0.335	1.00	Yes	1.00	**3.38**
		$U_9 - L_9$	-----	-667.56	202	-207	457	-511	-220	-118	1861	313	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.253	1	Yes	0.715	0.217	0.94	Yes	1.00	**3.28**
		$U_{10} - L_{10}$	-----	-787.42	184	-194	566	-590	-162	-77	-44	-97	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.098	0.88	Yes	0.736	0.260	1.00	Yes	1.00	**3.80**
		$U_{11} - L_{11}$	-----	-845.51	196	-196	435	-467	-122	-13	-81	34	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.078	0.93	Yes	0.791	0.206	1.00	Yes	1.00	**2.67**
		$U_{12} - L_{12}$	-----	-889.25	192	-191	514	-492	-59	45	49	119	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.086	0.94	Yes	0.771	0.221	1.00	Yes	1.00	**2.79**
		$U_{13} - L_{13}$	-----	-660.99	264	-271	513	-517	-112	9	917	121	-----	-----	-----	-----	-----	-----	-----	-----	0.737	0.257	1	Yes	0.637	0.247	0.89	Yes	1.00	**1.92**
		$U_{14} - L_{14}$	-----	-1344.07	78	-77	81	-86	-101	57	-110	34	-----	-----	-----	-----	-----	-----	-----	-----	0.983	0.012	1	Yes	0.891	0.015	0.91	Yes	1.00	**2.57**
		$U_{15} - L_{15}$	-----	-707.48	-136	151	-659	661	-32	16	-184	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.157	0.95	Yes	0.682	0.316	1.00	Yes	1.00	**3.43**
		$U_{16} - L_{16}$	-----	-736.62	-83	49	-490	451	-134	-53	-292	-207	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.116	0.97	Yes	0.789	0.208	1.00	Yes	1.00	**2.90**
		$U_{17} - L_{17}$	-----	-639.62	-138	125	-539	530	-85	-42	-160	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.092	0.89	Yes	0.744	0.250	1.00	Yes	1.00	**2.48**
		$U_{18} - L_{18}$	-----	-614.47	-130	116	-380	421	-77	-39	-188	-60	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.089	0.91	Yes	0.783	0.215	1.00	Yes	1.00	**2.36**
		$U_{19} - L_{19}$	-----	-489.96	-86	77	-276	277	-90	-43	-131	62	-----	-----	-----	-----	-----	-----	-----	-----	0.737	0.081	0.82	Yes	0.732	0.267	1.00	Yes	1.00	**3.45**
		$U_{20} - L_{20}$	-----	-385.38	-58	61	-209	222	-112	-13	-149	76	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.103	0.9	Yes	0.738	0.253	1.00	Yes	1.00	**3.35**
	Structure 3	$U_0 - L_0$	-----	-315.77	-39	40	-245	256	-140	-66	-132	97	-----	-----	-----	-----	-----	-----	-----	-----	0.713	0.128	0.85	Yes	0.668	0.327	1.00	Yes	1.00	**3.51**
		$U_1 - L_1$	-----	-422.52	-5	6	0	2	-131	-46	-131	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.951	0.044	1	Yes	0.894	0.007	0.91	Yes	1.00	**3.68**
		$U_2 - L_2$	-----	-307.88	24	-25	263	-269	-91	34	-97	-149	-----	-----	-----	-----	-----	-----	-----	-----	0.696	0.145	0.85	Yes	0.651	0.344	1.00	Yes	1.00	**3.76**
		$U_3 - L_3$	-----	-320.02	52	-55	154	-169	-134	-51	1245	160	-----	-----	-----	-----	-----	-----	-----	-----	0.656	0.342	1	Yes	0.613	0.193	0.81	Yes	1.00	**2.54**
		$U_4 - L_4$	-----	-471.42	81	-78	306	-303	-121	33	80	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.709	0.088	0.8	Yes	0.704	0.295	1.00	Yes	1.00	**3.07**
		$U_5 - L_5$	-----	-597.57	135	-134	401	-450	-153	22	-65	12	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.085	0.89	Yes	0.761	0.230	1.00	Yes	1.00	**2.34**
		$U_6 - L_6$	-----	-628.79	157	-155	567	-567	-148	42	-98	55	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.082	0.86	Yes	0.732	0.263	1.00	Yes	1.00	**2.43**
		$U_7 - L_7$	-----	-654.24	137	-119	440	-432	-117	38	1352	260	-----	-----	-----	-----	-----	-----	-----	-----	0.756	0.236	1	Yes	0.701	0.186	0.89	Yes	1.00	**2.19**
		$U_8 - L_8$	-----	-695.08	222	-242	673	-671	-197	-41	110	117	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.142	0.92	Yes	0.670	0.322	1.00	Yes	1.00	**2.90**
		$U_9 - L_9$	-----	-1336.20	-3	-10	19	-47	-132	-19	-123	-4	-----	-----	-----	-----	-----	-----	-----	-----	0.977	0.021	1	Yes	0.886	0.008	0.90	Yes	1.00	**2.62**
		$U_{10} - L_{10}$	-----	-745.09	-187	189	-586	587	-113	-43	-195	-141	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.149	0.98	Yes	0.718	0.281	1.00	Yes	1.00	**2.86**
		$U_{11} - L_{11}$	-----	-903.13	-123	88	-483	446	-183	-107	-294	-195	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.132	1	Yes	0.783	0.207	1.00	Yes	1.00	**3.05**
		$U_{12} - L_{12}$	-----	-858.40	-169	146	-404	430	-139	-78	-156	-82	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.080	0.95	Yes	0.803	0.190	1.00	Yes	1.00	**2.91**
		$U_{13} - L_{13}$	-----	-820.09	-156	162	-508	525	-102	19	146	-160	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.080	0.9	Yes	0.767	0.232	1.00	Yes	1.00	**4.69**
		$U_{14} - L_{14}$	-----	-617.38	-180	186	-408	439	-105	35	2023	582	-----	-----	-----	-----	-----	-----	-----	-----	0.687	0.307	1	Yes	0.662	0.186	0.85	Yes	1.00	**3.54**
		$U_{15} - L_{15}$	-----	-471.69	-103	116	-341	358	-103	47	-52	192	-----	-----	-----	-----	-----	-----	-----	-----	0.684	0.101	0.79	Yes	0.679	0.313	1.00	Yes	1.00	**3.45**
		$U_{16} - L_{16}$	-----	-292.00	-57	68	-57	68	-121	-8	-1250	-49	-----	-----	-----	-----	-----	-----	-----	-----	0.660	0.336	1	Yes	0.618	0.087	0.71	Yes	1.00	**3.40**
		$U_{17} - L_{17}$	219.93	-----	-153	169	257	-257	-117	-29	-936	-609	0.396	0.600	1.00	Yes	0.218	0.330	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.03**
		$U_{18} - L_{18}$	90.38	-224.93	-86	95	109	-146	-150	-64	1908	530	0.163	0.739	0.91	Yes	0.089	0.406	0.50	Yes	0.492	0.504	1	Yes	0.476	0.186	0.67	Yes	1.00	**3.48**
		$U_{19} - L_{19}$	-----	-320.90	-55	41	244	-246	-169	-94	147	52	-----	-----	-----	-----	-----	-----	-----	-----	0.701	0.133	0.84	Yes	0.679	0.314	1.00	Yes	1.00	**3.44**
		$U_{20} - L_{20}$	-----	-331.42	37	-37	161	-228	-224	-72	340	109	-----	-----	-----	-----	-----	-----	-----	-----	0.740	0.204	0.95	Yes	0.701	0.292	1.00	Yes	1.00	**2.23**

Axial AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression											
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Diagonals	Structure 1	$U_0 - L_1$			608.17	-----	-60	51	22	-19	-507	-237	-39	-1	0.798	0.197	1.00	Yes	0.482	0.109	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.02**
		$U_1 - L_2$			428.65	-167.20	-100	26	29	-18	-319	-222	72	62	0.771	0.220	1.00	Yes	0.424	0.121	0.55	Yes	0.384	0.206	0.59	Yes	0.354	0.128	0.49	Yes	1.00	**5.09**
		$U_2 - L_3$			-----	-288.76	-112	16	53	-31	-381	-490	13	182	-----	-----	-----	-----	-----	-----	-----	-----	0.665	0.327	1	Yes	0.611	0.144	0.76	Yes	1.00	**6.71**
		$U_3 - L_4$			-----	-319.77	-75	-108	14	-52	-424	-349	-56	-15	-----	-----	-----	-----	-----	-----	-----	-----	0.731	0.268	1	Yes	0.677	0.138	0.82	Yes	1.00	**5.12**
		$U_4 - L_4$			597.70	-----	-92	38	-13	23	67	14	111	21	0.876	0.120	1.00	Yes	0.482	0.066	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.76**
		$U_5 - L_5$			681.18	-----	-150	273	-35	76	190	80	189	96	0.805	0.190	1.00	Yes	0.443	0.104	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.87**
		$U_6 - L_6$			650.99	-----	-282	262	-78	85	371	-26	296	170	0.770	0.228	1.00	Yes	0.423	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.59**
		$U_6 - L_7$			624.93	-----	-62	344	-8	115	310	215	243	175	0.739	0.252	1.00	Yes	0.406	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.74**
		$U_8 - L_9$			944.18	-----	9	433	54	177	372	321	137	109	0.755	0.240	1.00	Yes	0.468	0.135	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.98**
		$U_9 - L_{10}$			1016.69	-----	-290	319	-97	85	331	292	89	104	0.813	0.184	1.00	Yes	0.503	0.103	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		$U_{10} - L_{11}$			1027.38	-----	-202	259	-74	71	0	-57	-53	-69	0.868	0.129	1.00	Yes	0.537	0.072	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.21**
		$U_{11} - L_{12}$			845.52	-----	-242	160	-79	29	-263	-279	-192	-163	0.836	0.154	1.00	Yes	0.460	0.085	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.72**
		$U_{12} - L_{13}$			622.04	-----	-192	167	-72	51	-357	-330	-229	-195	0.758	0.237	1.00	Yes	0.477	0.134	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.84**
		$U_{13} - L_{14}$			427.88	-----	-104	25	-27	10	-308	-330	-210	-207	0.770	0.229	1.00	Yes	0.423	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.58**
		$U_{15} - L_{14}$			379.40	-179.05	-148	-37	33	-49	-400	-417	4	-61	0.682	0.310	1.00	Yes	0.375	0.170	0.55	Yes	0.419	0.257	0.68	Yes	0.379	0.189	0.57	Yes	1.00	**7.58**
		$U_{16} - L_{15}$			399.91	-----	-133	92	-5	-11	-352	-350	-33	-75	0.719	0.272	1.00	Yes	0.396	0.150	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.16**
		$U_{17} - L_{16}$			491.27	-----	-144	83	-25	6	-174	-552	-23	-94	0.720	0.275	1.00	Yes	0.396	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.81**
		$U_{18} - L_{17}$			640.50	-----	-341	263	-93	56	-258	-226	4	-43	0.757	0.240	1.00	Yes	0.416	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		$U_{19} - L_{18}$			693.85	-----	-349	257	-100	64	-365	-140	39	0	0.752	0.239	1.00	Yes	0.413	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.54**
		$U_{20} - L_{19}$			678.06	-----	-361	310	-125	103	-453	-79	0	28	0.734	0.259	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.40**
	Structure 2	$U_0 - L_1$			755.56	-----	-382	369	-47	57	-498	-157	-126	61	0.747	0.252	1.00	Yes	0.411	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.31**
		$U_1 - L_2$			738.94	-----	-370	285	-66	41	-628	-254	60	20	0.731	0.266	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.34**
		$U_2 - L_3$			608.96	-----	-337	255	-38	27	-469	-182	-63	-186	0.720	0.276	1.00	Yes	0.396	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		$U_3 - L_4$			552.40	-----	-180	118	-12	-1	-430	-200	-237	-222	0.736	0.255	1.00	Yes	0.405	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		$U_4 - L_5$			391.77	-----	-132	87	18	-25	-428	-398	-142	-88	0.705	0.293	1.00	Yes	0.388	0.161	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.08**
		$U_5 - L_6$			362.61	-196.37	-128	62	61	-59	-607	-460	-102	-21	0.652	0.340	1.00	Yes	0.359	0.187	0.55	Yes	0.464	0.349	0.82	Yes	0.416	0.164	0.58	Yes	1.00	**5.77**
		$U_6 - L_7$			-----	-305.14	-59	-39	37	-83	-320	-746	-496	-336	-----	-----	-----	-----	-----	-----	-----	-----	0.653	0.339	1	Yes	0.585	0.094	0.68	Yes	1.00	**3.84**
		$U_8 - L_7$			583.05	-----	-217	108	-58	47	-285	-264	-26	-113	0.743	0.252	1.00	Yes	0.468	0.142	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.84**
		$U_8 - L_9$			694.87	-----	-336	236	-125	89	-284	-433	17	-69	0.753	0.243	1.00	Yes	0.414	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.32**
		$U_{10} - L_9$			774.08	-----	-322	198	-115	96	-35	-561	46	-19	0.766	0.233	1.00	Yes	0.421	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.94**
		$U_{11} - L_{10}$			900.38	-----	-376	306	-132	123	-44	-86	145	35	0.820	0.179	1.00	Yes	0.451	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.40**
		$U_{12} - L_{11}$			884.70	-----	-350	353	-141	150	256	163	215	115	0.806	0.185	1.00	Yes	0.443	0.102	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.45**
		$U_{13} - L_{12}$			750.23	-----	-426	389	-180	174	347	202	350	182	0.742	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.20**
		$U_{14} - L_{13}$			727.50	-----	-216	452	-29	193	383	-188	471	163	0.720	0.280	1.00	Yes	0.396	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.74**
		$U_{14} - L_{15}$			610.31	-----	-144	409	56	76	249	165	30	-20	0.722	0.277	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.57**
		$U_{15} - L_{16}$			631.31	-----	-379	352	-67	72	195	173	9	34	0.746	0.250	1.00	Yes	0.411	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.75**
		$U_{16} - L_{17}$			726.21	-----	-324	383	-52	105	99	77	-6	14	0.787	0.212	1.00	Yes	0.433	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.65**
		$U_{17} - L_{18}$			688.68	-----	-309	304	-53	104	-1	-5	-27	6	0.814	0.180	1.00	Yes	0.448	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.56**
		$U_{18} - L_{19}$			665.78	-----	-284	262	-18	105	-249	-231	-5	21	0.787	0.206	1.00	Yes	0.433	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.06**
		$U_{19} - L_{20}$			578.85	-----	-212	183	-15	68	-344	-307	0	58	0.738	0.260	1.00	Yes	0.406	0.147	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.11**
		$U_{20} - L_{21}$			419.08	-----	-120	106	-16	35	-319	-262	18	31	0.754	0.245	1.00	Yes	0.415	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.27**
		$U_{21} - L_{22}$			360.49	-----	-145	6	-9	-34	-455	-407	-560	-380	0.648	0.347	1.00	Yes	0.357	0.191	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.85**
		$U_{23} - L_{22}$			402.70	-----	-147	27	-22	-32	-164	-257	-240	-273	0.724	0.267	1.00	Yes	0.398	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.62**
		$U_{24} - L_{23}$			428.57	-----	-123	104	-8	26	-168	-204	229	142	0.771	0.223	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.57**
		$U_{25} - L_{24}$			550.73	-----	-200	146	-14	57	-47	-563	251	162	0.702	0.294	1.00	Yes	0.386	0.168	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.48**
		$U_{26} - L_{25}$			661.40	-----	-290	264	-29	102	-13	-91	287	197	0.782	0.216	1.00	Yes	0.430	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.56**
		$U_{27} - L_{26}$			659.51	-----	-292	285	-64	108	230	102	264	160	0.780	0.213	1.00	Yes	0.429	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.32**
		$U_{28} - L_{27}$			701.46	-----	-316	370	-78	125	271	177	262	179	0.760	0.234	1.00	Yes	0.418	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.41**
		$U_{29} - L_{28}$			617.23	-----	-362	332	-116	114	334	-83	303	143	0.730	0.266	1.00	Yes	0.401	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.17**
		$U_{30} - L_{29}$			600.70	-----	-158	382	8	133	264	153	404	111	0.710	0.290	1.00	Yes	0.391	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.80**
		$U_{30} - L_{31}$			735.90	-----	-197	494	19	129	281	166	124	34	0.728	0.271	1.00	Yes	0.400	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.46**
		$U_{31} - L_{32}$			768.94	-----	-448	403	-122	124	179	144	53	61	0.761	0.235	1.00	Yes	0.418	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.70**
		$U_{32} - L_{33}$			914.19	-----	-358	363	-81	141	26	32	8	28	0.833	0.158	1.00	Yes	0.458	0.087	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.88**
		$U_{33} - L_{34}$			874.76	-----	-364	269	-65	149	-344	-175	7	39	0.797	0.202	1.00	Yes	0.438	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.90**
		$U_{34} - L_{35}$			824.60	-----	-273	242	-101	90	-369	260	-193	-171	0.816	0.182	1.00	Yes	0.449	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.18**
		$U_{35} - L_{36}$			675.25	-----	-332	234	-117	88	-544	-440	-245	-186	0.731	0.259	1.00	Yes	0.402	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.53**
		$U_{36} - L_{37}$			520.85	-----	-190	105	-59	55	-332	-790	-215	-206	0.664	0.331	1.00	Yes	0.418	0.190	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.27**
		$U_{38} - L_{37}$			-----	-368.89	-103	-35	41	-99	-317	-294	-276	-297	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.196	1	Yes	0.707	0.118	0.83	Yes	1.00	**5.87**
		$U_{39} - L_{38}$			387.95	-224.74	-126	63	69	-65	-255	-477	77	7	0.698	0.299	1.00	Yes	0.384	0.164	0.55	Yes	0.535	0.230	0.77	Yes	0.476	0.161	0.64	Yes	1.00	**5.53**
		$U_{40} - L_{39}$			366.68	-----	-126	69	19	-27	-50	-594	27	-13	0.659	0.333	1.00	Yes	0.363	0.183	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.28**
		$U_{41} - L_{40}$			588.53	-----	-191	141	-12	-5	-172	-188	27	-5	0.785	0.214	1.00	Yes	0.431	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.26**
		$U_{42} - L_{41}$			654.33	-----	-348	271	-51	30	-123	-151	-5	2	0.774	0.224	1.00	Yes	0.425	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		$U_{43} - L_{42}$			776.17	-----	-390	311	-71	44	-326	-88	-18	-44	0.768	0.230	1.00	Yes	0.422	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.65**
		$U_{44} - L_{43}$			769.67	-----	-376	367	-124	105	-403	-19	34	-10	0.761	0.235	1.00	Yes	0.419	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.48**
	Structure 3	$U_0 - L_1$			658.80	-----	-372	310	-64	67	-570	-185	-137	43	0.714	0.284	1.00	Yes	0.392	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.56**
		$U_1 - L_2$			661.67	-----	-331	234	-85	52	-685	-273	35	10	0.717	0.282	1.00	Yes	0.394	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_2 - L_3$			630.39	-----	-335	252	-66	38	-283	-339	-75	-172	0.745	0.251	1.00	Yes	0.410	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.16**
		$U_3 - L_4$			506.97	-----	-151	104	-15	3	-419	-398	-217	-204	0.743	0.251	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.63**
		$U_4 - L_5$			381.14	-----	-126	91	-6	-8	-507	-400	-194	-132	0.685	0.308	1.00	Yes	0.377	0.170	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.94**
		$U_5 - L_6$			323.15	-151.60	-147	-65	-5	-79	-742	-600	-782	-553	0.581	0.414	1.00	Yes	0.320	0.228	0.55	Yes	0.355	0.414	0.77	Yes	0.321	0.188	0.51	Yes	1.00	**6.47**
		$U_7 - L_6$			435.31	-----	-105	23	-23	6	-130	-273	-27	-144	0.783	0.213	1.00	Yes	0.431	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.77**
		$U_8 - L_7$			641.21	-----	-196	171	-66	46	-164	-230	-29	-86	0.782	0.216	1.00	Yes	0.492	0.121	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.02**
		$U_8 - L_9$			815.88	-----	-251	125	-77	27	-12	-460	56	-40	0.807	0.185	1.00	Yes	0.444	0.102	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.26**
		$U_{10} - L_9$			1020.21	-----	-215	247	-74	68	150	42	137	56	0.862	0.134	1.00	Yes	0.533	0.075	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.82**
		$U_{11} - L_{10}$			996.54	-----	-294	310	-101	87	458	345	307	197	0.797	0.197	1.00	Yes	0.493	0.111	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.61**
		$U_{12} - L_{11}$			938.94	-----	-15	414	-16	142	450	371	293	217	0.751	0.242	1.00	Yes	0.465	0.136	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.55**
		$U_{12} - L_{13}$			626.70	-----	-46	355	-4	107	257	195	114	92	0.741	0.249	1.00	Yes	0.408	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.37**
		$U_{13} - L_{14}$			661.87	-----	-283	290	-71	76	235	211	91	114	0.783	0.208	1.00	Yes	0.430	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.28**
		$U_{14} - L_{15}$			700.57	-----	-151	277	-31	69	45	5	37	14	0.828	0.166	1.00	Yes	0.456	0.091	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.14**
		$U_{15} - L_{16}$			597.19	-----	-93	39	-12	23	-91	-30	-50	-23	0.876	0.116	1.00	Yes	0.482	0.064	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.89**
		$U_{17} - L_{16}$			-----	-376.67	-58	-71	9	-96	-92	-262	-235	215	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.129	1	Yes	0.797	0.123	0.93	Yes	1.00	**4.98**
		$U_{18} - L_{17}$			-----	-307.93	-124	20	61	-35	-295	-433	131	244	-----	-----	-----	-----	-----	-----	-----	-----	0.709	0.287	1	Yes	0.652	0.158	0.82	Yes	1.00	**7.06**
		$U_{19} - L_{18}$			414.98	-118.42	-89	0	27	-21	-233	-460	37	-1	0.746	0.247	1.00	Yes	0.410	0.136	0.55	Yes	0.272	0.208	0.48	Yes	0.251	0.113	0.37	Yes	1.00	**3.81**
		$U_{20} - L_{19}$			615.39	-----	-78	63	-20	-1	-378	-195	31	-18	0.807	0.186	1.00	Yes	0.488	0.103	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.00**

Axial AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Upper Chord	Structure 1	U_0 - U_1			-----	-577.45	-230	184	869	-913	-167	226	674	-849	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.122	0.91	Yes	0.779	0.217	1.00	Yes	1.00	**6.48**
		U_1 - U_2			-----	-511.20	-95	134	-322	-705	-165	159	-81	-509	-----	-----	-----	-----	-----	-----	-----	-----	0.696	0.300	1	Yes	0.689	0.168	0.86	Yes	1.00	**2.86**
		U_2 - U_3			-----	-578.83	-49	406	-757	-196	-126	188	560	-611	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.204	1	Yes	0.781	0.180	0.97	Yes	1.00	**3.86**
		U_3 - U_4			695.49	-571.04	250	560	-532	-290	-255	5	-246	-390	0.797	0.199	1.00	Yes	0.547	0.136	0.69	Yes	0.777	0.185	0.97	Yes	0.770	0.133	0.91	Yes	1.00	**5.65**
		U_4 - U_5			685.11	-548.32	308	533	-613	-164	-116	7	-366	-168	0.785	0.207	1.00	Yes	0.539	0.142	0.69	Yes	0.746	0.206	0.96	Yes	0.739	0.146	0.89	Yes	1.00	**5.51**
		U_5 - U_6			735.16	-----	313	526	-354	308	94	139	-104	-169	0.843	0.154	1.00	Yes	0.568	0.100	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.18**
		U_6 - U_7			895.60	-----	436	210	50	56	299	356	74	-70	0.856	0.142	1.00	Yes	0.599	0.098	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.80**
		U_7 - U_8			1005.92	-----	-223	1535	-139	920	338	689	230	380	0.697	0.302	1.00	Yes	0.486	0.207	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.67**
		U_8 - U_9			799.67	-----	1586	-565	812	-254	585	51	302	267	0.655	0.338	1.00	Yes	0.448	0.230	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.98**
		U_9 - U_{10}			687.91	-----	248	289	292	-707	1	304	567	-540	0.746	0.250	1.00	Yes	0.505	0.167	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.07**
		U_{10} - U_{11}			-----	-639.02	248	-173	192	-796	45	110	227	-460	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.140	0.97	Yes	0.815	0.178	1.00	Yes	1.00	**3.22**
		U_{11} - U_{12}			-----	-915.39	139	-217	-16	-803	12	93	80	-230	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.126	1	Yes	0.859	0.133	1.00	Yes	1.00	**2.10**
		U_{12} - U_{13}			-----	-1271.88	-58	-271	-499	-600	75	4	734	-464	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.135	1	Yes	0.850	0.083	0.94	Yes	1.00	**2.54**
		U_{13} - U_{14}			-----	-1439.02	-195	-502	-551	-1107	-47	-14	-54	-279	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.164	1	Yes	0.825	0.122	0.95	Yes	1.00	**2.62**
		U_{14} - U_{15}			-----	-1425.82	-405	-291	-1056	-669	35	-277	-172	-277	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.165	1	Yes	0.817	0.117	0.94	Yes	1.00	**2.57**
		U_{15} - U_{16}			-----	-1467.74	-199	-466	-729	-768	-111	-418	-316	-282	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.141	1	Yes	0.841	0.085	0.93	Yes	1.00	**2.91**
		U_{16} - U_{17}			-----	-1436.34	-410	-225	-1011	-421	-269	-363	-198	-208	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.160	1	Yes	0.823	0.112	0.94	Yes	1.00	**3.50**
		U_{17} - U_{18}			-----	-1062.10	-254	-60	-661	11	-112	72	-132	-15	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.158	1	Yes	0.831	0.108	0.94	Yes	1.00	**3.28**
		U_{18} - U_{19}			-----	-705.87	-245	13	-653	115	365	-141	197	-239	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.195	1	Yes	0.794	0.131	0.93	Yes	1.00	**3.27**
		U_{19} - U_{20}			-----	-604.86	-217	-88	-1070	-192	-31	-115	-129	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.687	0.312	1	Yes	0.681	0.215	0.90	Yes	1.00	**8.86**
	Structure 2	U_0 - U_1			-----	-541.84	727	-418	2069	-1755	395	-131	1274	-508	-----	-----	-----	-----	-----	-----	-----	-----	0.644	0.242	0.89	Yes	0.640	0.351	1.00	Yes	1.00	**6.08**
		U_1 - U_2			-----	-850.84	-150	-280	-242	-919	-39	59	267	-350	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.164	1	Yes	0.821	0.140	0.97	Yes	1.00	**3.13**
		U_2 - U_3			-----	-1193.19	-146	-382	-108	-1128	-34	-33	137	-613	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.144	1	Yes	0.847	0.115	0.97	Yes	1.00	**2.77**
		U_3 - U_4			-----	-1427.46	-518	-501	-894	-1284	-122	-25	-9	-343	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.176	1	Yes	0.813	0.114	0.93	Yes	1.00	**2.33**
		U_4 - U_5			-----	-1563.97	-565	-509	-1109	-1391	-130	-71	11	-622	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.189	1	Yes	0.803	0.115	0.92	Yes	1.00	**2.31**
		U_5 - U_6			-----	-1613.73	-546	51	-1262	-838	-197	-38	-220	-440	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.157	1	Yes	0.829	0.105	0.94	Yes	1.00	**2.31**
		U_6 - U_7			-----	-1404.70	-298	-195	-1075	-1231	-170	-88	-188	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.188	1	Yes	0.800	0.110	0.91	Yes	1.00	**2.11**
		U_7 - U_8			-----	-1406.51	-334	-180	-1391	-868	-79	-174	-262	-379	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.189	1	Yes	0.801	0.124	0.93	Yes	1.00	**2.13**
		U_8 - U_9			-----	-1231.48	-323	243	-1216	-312	-15	-192	-251	-309	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.153	1	Yes	0.835	0.129	0.97	Yes	1.00	**2.48**
		U_9 - U_{10}			-----	-952.55	-39	583	-1242	-27	-131	-244	-484	-487	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.169	1	Yes	0.822	0.151	0.98	Yes	1.00	**3.18**
		U_{10} - U_{11}			878.74	-625.49	396	647	-1109	-43	-216	-112	-821	-356	0.742	0.257	1.00	Yes	0.505	0.169	0.68	Yes	0.625	0.214	0.84	Yes	0.622	0.156	0.78	Yes	1.00	**4.43**
		U_{11} - U_{12}			984.72	-----	249	683	-490	256	23	34	-513	-513	0.832	0.159	1.00	Yes	0.559	0.106	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.66**
		U_{12} - U_{13}			1356.03	-----	178	-6	-241	-183	-249	471	-289	-285	0.916	0.075	1.00	Yes	0.653	0.052	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.85**
		U_{13} - U_{14}			1294.17	-----	-566	3158	-536	2230	413	984	116	443	0.636	0.360	1.00	Yes	0.451	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.06**
		U_{14} - U_{15}			1298.52	-----	3254	-427	1846	-226	806	444	562	698	0.639	0.356	1.00	Yes	0.452	0.234	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.10**
		U_{15} - U_{16}			1433.13	-----	62	-634	18	268	-290	426	647	0.866	0.127	1.00	Yes	0.616	0.087	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.65**
		U_{16} - U_{17}			1180.85	-----	606	320	582	-566	-87	333	266	-509	0.870	0.130	1.00	Yes	0.579	0.085	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.93**
		U_{17} - U_{18}			832.27	-----	433	343	363	-701	-105	285	149	-200	0.835	0.161	1.00	Yes	0.556	0.106	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		U_{18} - U_{19}			780.14	-668.24	560	318	197	-750	-59	183	288	-600	0.783	0.215	1.00	Yes	0.514	0.138	0.66	Yes	0.794	0.139	0.94	Yes	0.789	0.127	0.92	Yes	1.00	**4.26**
		U_{19} - U_{20}			400.26	-730.03	277	176	-214	-936	-108	128	-51	-389	0.375	0.202	0.58	Yes	0.249	0.133	0.39	Yes	0.811	0.189	1	Yes	0.805	0.150	0.96	Yes	1.00	**2.78**
		U_{20} - U_{21}			-----	-899.01	158	81	-767	-516	-69	48	584	-511	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.172	1	Yes	0.820	0.111	0.94	Yes	1.00	**3.00**
		U_{21} - U_{22}			-----	-886.24	30	85	-584	-809	-191	-54	-92	-250	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.185	1	Yes	0.809	0.117	0.93	Yes	1.00	**2.92**
		U_{22} - U_{23}			-----	-868.83	87	17	-873	-643	-92	-139	-194	-185	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.195	1	Yes	0.793	0.126	0.92	Yes	1.00	**2.86**
		U_{23} - U_{24}			-----	-891.64	145	206	-872	-301	9	-46	-360	-153	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.179	1	Yes	0.814	0.126	0.95	Yes	1.00	**3.65**
		U_{24} - U_{25}			675.34	-788.95	354	404	-667	-111	21	-40	-320	-90	0.633	0.150	0.79	Yes	0.420	0.098	0.52	Yes	0.876	0.122	1	Yes	0.870	0.107	0.98	Yes	1.00	**4.66**
		U_{25} - U_{26}			798.83	-----	358	547	-755	445	30	-9	-438	-275	0.802	0.192	1.00	Yes	0.526	0.123	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.87**
		U_{26} - U_{27}			857.36	-----	406	420	-403	304	26	69	-405	-150	0.861	0.131	1.00	Yes	0.573	0.086	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.36**
		U_{27} - U_{28}			1112.94	-----	-324	1160	-270	438	-201	-35	-142	-295	0.820	0.177	1.00	Yes	0.546	0.116	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.53**
		U_{28} - U_{29}			1517.89	-----	202	81	119	-29	-122	640	124	226	0.918	0.077	1.00	Yes	0.653	0.054	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.21**
		U_{29} - U_{30}			1288.05	-----	-325	3078	-10	1721	526	1050	805	1028	0.633	0.357	1.00	Yes	0.448	0.235	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.96**
		U_{30} - U_{31}			1261.05	-----	3426	-943	1922	-530	771	99	875	849	0.620	0.377	1.00	Yes	0.439	0.248	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.33**
		U_{31} - U_{32}			1315.55	-----	95	415	-162	-238	198	401	605	621	0.888	0.111	1.00	Yes	0.633	0.077	0.72	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.43**
		U_{32} - U_{33}			944.30	-----	633	196	440	-868	15	240	324	-595	0.798	0.195	1.00	Yes	0.536	0.130	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.84**
		U_{33} - U_{34}			694.70	-841.08	521	212	-24	-1095	-17	228	285	-312	0.587	0.193	0.78	Yes	0.399	0.125	0.53	Yes	0.841	0.141	0.99	Yes	0.836	0.154	1.00	Yes	1.00	**3.99**
		U_{34} - U_{35}			-----	-1005.30	410	-172	-84	-1071	46	47	248	-456	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.126	1	Yes	0.868	0.130	1.00	Yes	1.00	**2.55**
		U_{35} - U_{36}			-----	-1260.41	112	-453	-319	-1088	-15	92	77	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.129	1	Yes	0.855	0.116	0.98	Yes	1.00	**2.08**
		U_{36} - U_{37}			-----	-1447.24	-283	-306	-881	-1294	-18	-118	11	-257	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.169	1	Yes	0.824	0.115	0.94	Yes	1.00	**1.94**
		U_{37} - U_{38}			-----	-1426.93	-196	-420	-1182	-1064	-94	-195	-171	-340	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.178	1	Yes	0.813	0.105	0.92	Yes	1.00	**1.88**
		U_{38} - U_{39}			-----	-1633.18	-128	-617	-934	-1209	13	-201	-226	-326	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.148	1	Yes	0.839	0.100	0.94	Yes	1.00	**2.20**
		U_{39} - U_{40}			-----	-1591.32	-578	-559	-1420	-932	24	-60	-289	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.173	1	Yes	0.817	0.118	0.94	Yes	1.00	**2.35**
		U_{40} - U_{41}			-----	-1463.99	-511	-513	-1171	-819	195	-135	-109	-191	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.154	1	Yes	0.834	0.104	0.94	Yes	1.00	**2.54**
		U_{41} - U_{42}			-----	-1222.66	-396	-136	-1131	-31	71	-23	-186	-148	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.122	1	Yes	0.868	0.115	0.99	Yes	1.00	**3.09**
		U_{42} - U_{43}			-----	-886.97	-292	-47	-903	71	172	-220	-180	-234	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.129	1	Yes	0.856	0.137	1.00	Yes	1.00	**3.66**
		U_{43} - U_{44}			-----	-652.31	-119	-267	-1328	7	-128	-128	-112	108	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.216	1	Yes	0.770	0.226	1.00	Yes	1.00	**7.67**
	Structure 3	U_0 - U_1			-----	-539.91	631	-342	1950	-1487	286	-53	1334	-854	-----	-----	-----	-----	-----	-----	-----	-----	0.613	0.293	0.91	Yes	0.607	0.392	1.00	Yes	1.00	**7.50**
		U_1 - U_2			-----	-733.37	-81	-222	-68	-701	-21	13	191	-338	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.164	1	Yes	0.825	0.141	0.97	Yes	1.00	**3.02**
		U_2 - U_3			-----	-1089.22	-53	-238	35	-599	-29	-47	144	-694	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.133	1	Yes	0.852	0.097	0.95	Yes	1.00	**2.88**
		U_3 - U_4			-----	-1370.79	-219	-372	-457	-1275	-101	-37	-214	-559	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.201	1	Yes	0.786	0.141	0.93	Yes	1.00	**2.66**
		U_4 - U_5			-----	-1431.02	-438	-144	-1076	-473	-89	-49	535	-635	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.163	1	Yes	0.820	0.119	0.94	Yes	1.00	**2.63**
		U_5 - U_6			-----	-1412.95	-255	-373	-618	-1061	-179	-149	-148	-361	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.176	1	Yes	0.810	0.117	0.93	Yes	1.00	**2.79**
		U_6 - U_7			-----	-1398.35	-493	-157	-1228	-512	-121	-300	-260	-365	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.182	1	Yes	0.802	0.135	0.94	Yes	1.00	**2.75**
		U_7 - U_8			-----	-1217.24	-237	24	-701	-206	-106	-333	-368	-486	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.168	1	Yes	0.813	0.097	0.91	Yes	1.00	**3.05**
		U_8 - U_9			-----	-847.49	-139	237	-658	82	-231	-205	-403	-262	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.192	1	Yes	0.795	0.109	0.91	Yes	1.00	**2.98**
		U_9 - U_{10}			-----	-551.43	-84	360	-921	314	-20	-42	-200	-294	-----	-----	-----	-----	-----	-----	-----	-----	0.710	0.288	1	Yes	0.704	0.206	0.92	Yes	1.00	**4.86**
		U_{10} - U_{11}			751.03	-----	352	245	-381	313	79	241	-567	-189	0.815	0.177	1.00	Yes	0.552	0.118	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.29**
		U_{11} - U_{12}			833.29	-----	-454	1470	-163	757	-32	511	389	549	0.683	0.314	1.00	Yes	0.467	0.214	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.74**
		U_{12} - U_{13}			958.39	-----	1819	-410	891	-157	239	114	463	562	0.664	0.333	1.00	Yes	0.463	0.227	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.10**
		U_{13} - U_{14}			852.51	-----	217	362	13	-460	-97	371	-37	-560	0.815	0.175	1.00	Yes	0.570	0.120	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.06**
		U_{14} - U_{15}			641.42	-----	456	224	25	-367	-55	261	907	-613	0.735	0.262	1.00	Yes	0.496	0.174	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.22**
		U_{15} - U_{16}			505.74	-631.74	397	236	-239	-591	-69	278	47	4	0.580	0.188	0.77	Yes	0.398	0.128	0.53	Yes	0.860	0.140	1	Yes	0.852	0.141	1.00	Yes	1.00	**5.06**
		U_{16} - U_{17}			507.92	-645.96	481	123	-404	-529	235	-28	76	-140	0.582	0.165	0.75	Yes	0.400	0.113	0.52	Yes	0.879	0.093	0.98	Yes	0.871	0.126	1.00	Yes	1.00	**5.14**
		U_{17} - U_{18}			-----	-644.66	335	-144	-411	-529	87	54	-48	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.877	0.090	0.97	Yes	0.869	0.126	1.00	Yes	1.00	**4.28**
		U_{18} - U_{19}			-----	-583.09	82	-64	-639	-152	223	-193	102	-286	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.200	1	Yes	0.786	0.152	0.94	Yes	1.00	**4.17**
		U_{19} - U_{20}			-----	-605.96	190	-363	-584	-549	-144	-113	-168	-59	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.168	1	Yes	0.817	0.139	0.96	Yes	1.00	**8.35**

Axial AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Lower Chord	Structure 1	L_0 - L_1	261.07	-167.91	12	-104	519	-903	158	583	-410	-1507	0.400	0.595	1.00	Yes	0.235	0.354	0.59	Yes	0.305	0.480	0.79	Yes	0.302	0.271	0.58	Yes	1.00	**14.93**
		L_1 - L_2	377.68	-----	87	-795	-20	62	-813	464	396	-180	0.578	0.413	1.00	Yes	0.353	0.269	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.94**
		L_2 - L_3	639.25	-----	-731	-508	-10	110	209	-512	-194	133	0.735	0.259	1.00	Yes	0.425	0.154	0.58	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		L_3 - L_4	665.91	-402.81	-537	-350	49	441	-639	287	347	-280	0.766	0.232	1.00	Yes	0.455	0.146	0.61	Yes	0.550	0.148	0.7	Yes	0.545	0.130	0.68	Yes	1.00	**4.34**
		L_4 - L_5	-----	-574.88	-341	329	112	468	225	46	-86	218	-----	-----	-----	-----	-----	-----	-----	-----	0.884	0.115	1	Yes	0.876	0.124	1.00	Yes	1.00	**2.41**
		L_5 - L_6	-----	-747.77	-73	358	126	589	79	-192	189	-208	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.122	1	Yes	0.863	0.130	1.00	Yes	1.00	**2.25**
		L_6 - L_7	-----	-1195.25	-72	102	73	56	-129	286	-114	222	-----	-----	-----	-----	-----	-----	-----	-----	0.973	0.025	1	Yes	0.962	0.016	0.98	Yes	1.00	**3.36**
		L_7 - L_8	-----	-1240.58	-53	780	-79	1331	298	285	371	472	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.204	1	Yes	0.786	0.176	0.97	Yes	1.00	**2.30**
		L_8 - L_9	-----	-1245.76	705	-34	1220	-64	242	351	482	292	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.192	1	Yes	0.789	0.161	0.96	Yes	1.00	**2.05**
		L_9 - L_{10}	-----	-1088.03	346	-234	446	-363	455	-184	112	-33	-----	-----	-----	-----	-----	-----	-----	-----	0.885	0.105	1	Yes	0.876	0.070	0.95	Yes	1.00	**3.91**
		L_{10} - L_{11}	-----	-509.35	183	-288	500	-177	-262	152	-330	158	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.215	1	Yes	0.776	0.132	0.91	Yes	1.00	**4.95**
		L_{11} - L_{12}	517.59	-----	327	-851	346	-238	-565	502	132	-87	0.670	0.324	1.00	Yes	0.402	0.209	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.45**
		L_{12} - L_{13}	1058.04	-----	-425	-546	45	-161	-49	-502	-157	122	0.835	0.156	1.00	Yes	0.534	0.095	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.20**
		L_{13} - L_{14}	1323.38	-----	-106	-1236	181	-527	-548	454	147	18	0.778	0.216	1.00	Yes	0.504	0.133	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.17**
		L_{14} - L_{15}	1607.63	-----	-1487	-408	-567	-152	451	18	-148	164	0.785	0.211	1.00	Yes	0.510	0.128	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.82**
		L_{15} - L_{16}	1725.17	-----	-923	-1036	-303	-362	-2	333	116	-133	0.843	0.148	1.00	Yes	0.541	0.087	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.31**
		L_{16} - L_{17}	1288.90	-----	-1075	118	-416	55	231	-139	-123	175	0.815	0.178	1.00	Yes	0.529	0.110	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.00**
		L_{17} - L_{18}	1016.51	-----	-383	-44	-233	35	-113	-304	106	-102	0.885	0.113	1.00	Yes	0.567	0.069	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.64**
		L_{18} - L_{19}	518.72	-----	-481	233	-367	274	-148	279	-258	211	0.794	0.202	1.00	Yes	0.537	0.128	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.76**
		L_{19} - L_{20}	523.30	-237.49	-384	99	-376	244	394	88	236	53	0.801	0.197	1.00	Yes	0.489	0.129	0.62	Yes	0.431	0.122	0.56	Yes	0.428	0.115	0.55	Yes	1.00	**6.57**
	Structure 2	L_0 - L_1	-----	-435.11	243	-604	518	-1729	146	506	-282	-979	-----	-----	-----	-----	-----	-----	-----	-----	0.626	0.365	1	Yes	0.622	0.352	0.98	Yes	1.00	**11.94**
		L_1 - L_2	628.32	-----	309	-755	206	-303	422	-459	110	140	0.763	0.229	1.00	Yes	0.454	0.145	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.06**
		L_2 - L_3	1042.04	-----	93	-972	-77	-213	294	-124	-80	143	0.821	0.172	1.00	Yes	0.539	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.81**
		L_3 - L_4	1355.99	-----	-7	-1391	-27	-449	-401	489	190	-33	0.797	0.202	1.00	Yes	0.536	0.126	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.70**
		L_4 - L_5	1809.27	-----	-1092	-1237	-416	-346	507	83	-96	157	0.843	0.151	1.00	Yes	0.558	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		L_5 - L_6	1889.21	-----	-726	-1751	-203	-418	-141	472	197	-96	0.811	0.185	1.00	Yes	0.544	0.114	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.27**
		L_6 - L_7	1899.44	-----	-1814	-1378	-525	-172	363	-563	-160	221	0.804	0.194	1.00	Yes	0.534	0.115	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.96**
		L_7 - L_8	1386.16	-----	-1338	-407	-290	413	-596	333	226	-138	0.795	0.197	1.00	Yes	0.522	0.118	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.79**
		L_8 - L_9	1155.22	-----	-1110	341	-53	618	395	-146	-83	180	0.808	0.187	1.00	Yes	0.544	0.117	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.45**
		L_9 - L_{10}	646.37	-789.35	-1017	227	-117	848	-130	-84	135	-176	0.577	0.184	0.77	Yes	0.336	0.114	0.46	Yes	0.834	0.091	0.93	Yes	0.829	0.163	1.00	Yes	1.00	**3.61**
		L_{10} - L_{11}	-----	-763.09	-570	525	28	565	-12	-34	-88	93	-----	-----	-----	-----	-----	-----	-----	-----	0.902	0.067	0.97	Yes	0.896	0.100	1.00	Yes	1.00	**2.23**
		L_{11} - L_{12}	-----	-1029.24	-371	659	-71	1104	-170	-583	89	-336	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.146	1	Yes	0.844	0.150	1.00	Yes	1.00	**2.30**
		L_{12} - L_{13}	-----	-1501.15	-419	-358	-136	-708	-521	-88	-207	53	-----	-----	-----	-----	-----	-----	-----	-----	0.905	0.092	1	Yes	0.898	0.070	0.97	Yes	1.00	**2.80**
		L_{13} - L_{14}	-----	-1507.94	-670	1925	-949	2717	115	230	189	372	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.179	0.95	Yes	0.759	0.237	1.00	Yes	1.00	**1.91**
		L_{14} - L_{15}	-----	-1508.86	1629	-558	2674	-892	321	289	377	222	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.178	0.95	Yes	0.759	0.233	1.00	Yes	1.00	**1.68**
		L_{15} - L_{16}	-----	-1533.68	-332	-89	-689	-246	234	-278	126	28	-----	-----	-----	-----	-----	-----	-----	-----	0.925	0.073	1	Yes	0.917	0.069	0.99	Yes	1.00	**2.67**
		L_{16} - L_{17}	-----	-1159.10	723	-148	1208	-353	-489	-29	-332	-588	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.138	0.99	Yes	0.844	0.149	1.00	Yes	1.00	**2.82**
		L_{17} - L_{18}	-----	-847.63	450	-186	649	-250	122	-177	-432	278	-----	-----	-----	-----	-----	-----	-----	-----	0.896	0.078	0.98	Yes	0.890	0.104	1.00	Yes	1.00	**3.25**
		L_{18} - L_{19}	-----	-648.42	299	-210	683	123	-205	151	-239	38	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.107	0.98	Yes	0.864	0.132	1.00	Yes	1.00	**3.62**
		L_{19} - L_{20}	535.61	-583.09	283	-1154	505	286	-554	667	179	-218	0.607	0.325	0.94	Yes	0.359	0.204	0.57	Yes	0.782	0.114	0.9	Yes	0.777	0.223	1.00	Yes	1.00	**4.41**
		L_{20} - L_{21}	966.19	-----	-807	-998	438	73	6	-716	-189	42	0.770	0.223	1.00	Yes	0.505	0.136	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.18**
		L_{21} - L_{22}	949.36	-----	-594	-1304	183	16	-488	451	143	-189	0.757	0.243	1.00	Yes	0.506	0.153	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.53**
		L_{22} - L_{23}	909.73	-----	-1490	-379	-183	157	444	-50	-35	213	0.725	0.265	1.00	Yes	0.485	0.167	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.94**
		L_{23} - L_{24}	1033.05	-773.85	-876	-387	103	565	-140	441	207	-318	0.824	0.175	1.00	Yes	0.540	0.106	0.65	Yes	0.731	0.116	0.85	Yes	0.726	0.128	0.86	Yes	1.00	**6.43**
		L_{24} - L_{25}	-----	-680.53	-446	179	210	422	-88	82	-153	108	-----	-----	-----	-----	-----	-----	-----	-----	0.913	0.064	0.98	Yes	0.907	0.086	1.00	Yes	1.00	**4.42**
		L_{25} - L_{26}	-----	-650.58	-268	188	27	641	-15	-128	83	-340	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.111	0.99	Yes	0.867	0.124	1.00	Yes	1.00	**3.06**
		L_{26} - L_{27}	-----	-838.02	-333	439	-211	739	-102	37	125	64	-----	-----	-----	-----	-----	-----	-----	-----	0.886	0.087	0.98	Yes	0.880	0.118	1.00	Yes	1.00	**2.89**
		L_{27} - L_{28}	-----	-1118.91	-219	742	-212	1430	59	-200	166	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.140	0.97	Yes	0.815	0.176	1.00	Yes	1.00	**2.41**
		L_{28} - L_{29}	-----	-1505.82	-247	-499	56	-925	-146	28	19	160	-----	-----	-----	-----	-----	-----	-----	-----	0.908	0.083	1	Yes	0.901	0.092	1.00	Yes	1.00	**2.89**
		L_{29} - L_{30}	-----	-1504.17	-707	1892	-1052	2755	110	91	224	370	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.177	0.95	Yes	0.757	0.241	1.00	Yes	1.00	**2.08**
		L_{30} - L_{31}	-----	-1535.22	1728	-525	2516	-846	514	408	244	58	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.180	0.97	Yes	0.772	0.220	1.00	Yes	1.00	**1.32**
		L_{31} - L_{32}	-----	-1511.64	-154	-353	-586	-324	350	-263	-330	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.912	0.079	1	Yes	0.904	0.058	0.97	Yes	1.00	**2.25**
		L_{32} - L_{33}	-----	-1040.26	576	-339	1023	-319	-425	49	79	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.113	0.98	Yes	0.853	0.139	1.00	Yes	1.00	**2.00**
		L_{33} - L_{34}	-----	-760.08	421	-471	587	8	136	-35	90	-135	-----	-----	-----	-----	-----	-----	-----	-----	0.899	0.073	0.98	Yes	0.893	0.103	1.00	Yes	1.00	**2.61**
		L_{34} - L_{35}	655.50	-813.76	-10	-638	879	-77	-212	344	-209	81	0.585	0.182	0.77	Yes	0.341	0.112	0.46	Yes	0.860	0.085	0.95	Yes	0.855	0.141	1.00	Yes	1.00	**4.78**
		L_{35} - L_{36}	1082.16	-----	255	-1237	628	-100	-511	730	160	-135	0.757	0.236	1.00	Yes	0.510	0.149	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.16**
		L_{36} - L_{37}	1384.08	-----	-530	-1482	327	-241	506	-492	-199	147	0.794	0.205	1.00	Yes	0.521	0.122	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.14**
		L_{37} - L_{38}	1816.90	-----	-1604	-1874	-296	-617	-1014	531	117	-181	0.769	0.227	1.00	Yes	0.511	0.137	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.37**
		L_{38} - L_{39}	1839.55	-----	-1857	-697	-566	-213	634	139	-106	174	0.789	0.204	1.00	Yes	0.530	0.126	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		L_{39} - L_{40}	1807.07	-----	-1379	-950	-405	-299	130	321	135	-117	0.842	0.152	1.00	Yes	0.558	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.53**
		L_{40} - L_{41}	1376.87	-----	-1364	61	-424	23	200	-165	-27	301	0.809	0.184	1.00	Yes	0.545	0.114	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.46**
		L_{41} - L_{42}	1036.74	-----	-1021	204	-231	50	-210	-74	313	141	0.817	0.181	1.00	Yes	0.536	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.88**
		L_{42} - L_{43}	592.45	-----	-813	316	-244	205	-685	32	164	359	0.720	0.278	1.00	Yes	0.428	0.174	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.25**
		L_{43} - L_{44}	-----	-454.13	-1107	288	-526	167	-501	-146	1123	327	-----	-----	-----	-----	-----	-----	-----	-----	0.653	0.338	1	Yes	0.649	0.225	0.88	Yes	1.00	**19.38**
	Structure 3	L_0 - L_1	-----	-449.02	109	-306	330	-611	45	203	-42	-191	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.134	0.95	Yes	0.808	0.183	1.00	Yes	1.00	**4.70**
		L_1 - L_2	523.98	-----	223	-464	306	-372	215	-203	241	21	0.802	0.189	1.00	Yes	0.542	0.120	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.94**
		L_2 - L_3	1017.07	-----	-161	-370	52	-226	-282	172	-17	163	0.886	0.107	1.00	Yes	0.567	0.065	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.05**
		L_3 - L_4	1146.85	-----	119	-1326	50	-430	-342	825	141	61	0.725	0.268	1.00	Yes	0.471	0.166	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.33**
		L_4 - L_5	1625.74	-----	-1271	-919	-378	-263	218	-620	-27	228	0.794	0.197	1.00	Yes	0.510	0.117	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.20**
		L_5 - L_6	1595.86	-----	-562	-1409	-141	-459	-425	621	255	-30	0.780	0.213	1.00	Yes	0.507	0.130	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		L_6 - L_7	1300.35	-----	-1388	158	-489	236	434	-107	-51	263	0.765	0.227	1.00	Yes	0.495	0.140	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.78**
		L_7 - L_8	1110.91	-----	-539	-181	-88	187	-144	146	145	-198	0.877	0.119	1.00	Yes	0.561	0.071	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.27**
		L_8 - L_9	557.72	-----	-862	415	-143	442	282	-281	-128	194	0.722	0.278	1.00	Yes	0.433	0.181	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.43**
		L_9 - L_{10}	-----	-563.55	-305	210	-62	519	-139	-406	199	-87	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.101	0.97	Yes	0.859	0.137	1.00	Yes	1.00	**4.45**
		L_{10} - L_{11}	-----	-1176.97	-291	317	-230	320	-314	141	-92	-33	-----	-----	-----	-----	-----	-----	-----	-----	0.958	0.028	0.99	Yes	0.947	0.050	1.00	Yes	1.00	**4.85**
		L_{11} - L_{12}	-----	-1269.95	-64	831	-98	1354	246	180	129	68	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.183	1	Yes	0.804	0.179	0.99	Yes	1.00	**2.60**
		L_{12} - L_{13}	-----	-1140.33	753	-32	1295	-65	29	209	-21	27	-----	-----	-----	-----	-----	-----	-----	-----	0.731	0.261	1	Yes	0.722	0.172	0.90	Yes	1.00	**1.92**
		L_{13} - L_{14}	-----	-1145.44	187	-107	205	-240	400	-22	-52	32	-----	-----	-----	-----	-----	-----	-----	-----	0.932	0.059	1	Yes	0.922	0.038	0.96	Yes	1.00	**3.94**
		L_{14} - L_{15}	-----	-729.28	150	-286	576	110	-182	-604	-260	74	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.144	1	Yes	0.841	0.128	0.97	Yes	1.00	**3.08**
		L_{15} - L_{16}	-----	-560.70	175	-511	483	146	-657	530	259	-223	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.134	1	Yes	0.854	0.135	0.99	Yes	1.00	**3.56**
		L_{16} - L_{17}	714.11	-----	-565	-527	437	-28	243	162	-178	188	0.822	0.175	1.00	Yes	0.488	0.112	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.00**
		L_{17} - L_{18}	709.43	-----	-658	-568	111	-68	11	-56	111	-117	0.816	0.178	1.00	Yes	0.472	0.107	0.58	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.54**
		L_{18} - L_{19}	464.40	-----	-723	2	29	-31	-11	290	-92	212	0.711	0.279	1.00	Yes	0.434	0.186	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.75**
		L_{19} - L_{20}	440.72	-118.75	-162	-126	-212	-2	-31	-8	1192	323	0.675	0.319	1.00	Yes	0.397	0.187	0.59	Yes	0.216	0.351	0.57	Yes	0.214	0.064	0.28	Yes	1.00	**31.79**

Axial AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-299.85	-8	42	-57	152	231	74	-784	-252	-----	-----	-----	-----	-----	-----	-----	-----	0.670	0.326	1	Yes	0.634	0.195	0.83	Yes	1.00	**1.55**
		$U_1 - L_1$	-----	-307.09	43	-35	-236	227	610	209	-945	-390	-----	-----	-----	-----	-----	-----	-----	-----	0.671	0.328	1	Yes	0.650	0.301	0.96	Yes	1.00	**3.19**
		$U_2 - L_2$	68.60	-133.69	66	-71	-28	60	747	241	-2704	-816	0.123	0.874	1.00	Yes	0.068	0.481	0.55	Yes	0.292	0.670	0.97	Yes	0.283	0.091	0.38	Yes	1.00	**2.40**
		$U_3 - L_3$	234.69	-----	240	-249	33	-24	-870	-740	-377	-64	0.422	0.571	1.00	Yes	0.232	0.314	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.08**
		$U_4 - L_4$	-----	-136.68	85	-86	119	-121	1109	563	-2402	-760	-----	-----	-----	-----	-----	-----	-----	-----	0.301	0.697	1	Yes	0.289	0.155	0.45	Yes	1.00	**3.74**
		$U_5 - L_5$	-----	-362.14	79	-85	181	-199	1101	628	154	212	-----	-----	-----	-----	-----	-----	-----	-----	0.655	0.339	1	Yes	0.625	0.202	0.83	Yes	1.00	**2.67**
		$U_6 - L_6$	-----	-425.12	78	-66	171	-180	1459	726	-1353	-322	-----	-----	-----	-----	-----	-----	-----	-----	0.644	0.352	1	Yes	0.610	0.157	0.77	Yes	1.00	**2.42**
		$U_7 - L_7$	-----	-326.66	119	-133	232	-254	949	246	492	100	-----	-----	-----	-----	-----	-----	-----	-----	0.546	0.450	1	Yes	0.504	0.250	0.76	Yes	1.00	**1.55**
		$U_8 - L_8$	-----	-1247.67	-123	140	-119	136	967	159	-331	-286	-----	-----	-----	-----	-----	-----	-----	-----	0.901	0.090	1	Yes	0.865	0.026	0.90	Yes	1.00	**3.32**
		$U_9 - L_9$	-----	-659.26	-230	262	-407	450	586	221	-445	-122	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.175	0.97	Yes	0.745	0.250	1.00	Yes	1.00	**2.06**
		$U_{10} - L_{10}$	-----	-782.48	-158	155	-347	361	598	275	-741	-273	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.183	1	Yes	0.772	0.187	0.96	Yes	1.00	**3.04**
		$U_{11} - L_{11}$	-----	-663.90	-166	217	-382	482	622	359	-732	-120	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.194	1	Yes	0.773	0.224	1.00	Yes	1.00	**2.92**
		$U_{12} - L_{12}$	-----	-423.05	-137	139	-210	226	664	369	-1958	-530	-----	-----	-----	-----	-----	-----	-----	-----	0.611	0.382	1	Yes	0.580	0.193	0.78	Yes	1.00	**1.83**
		$U_{13} - L_{13}$	-----	-312.34	-85	101	-171	197	555	247	-114	153	-----	-----	-----	-----	-----	-----	-----	-----	0.631	0.366	1	Yes	0.598	0.225	0.83	Yes	1.00	**3.18**
		$U_{14} - L_{14}$	-----	-134.35	-41	48	-50	59	637	193	-2648	-449	-----	-----	-----	-----	-----	-----	-----	-----	0.300	0.696	1	Yes	0.284	0.075	0.36	Yes	1.00	**3.48**
		$U_{15} - L_{15}$	-----	-257.81	-31	27	177	-202	456	96	-1320	-418	-----	-----	-----	-----	-----	-----	-----	-----	0.578	0.422	1	Yes	0.546	0.258	0.81	Yes	1.00	**5.43**
		$U_{16} - L_{16}$	-----	-317.76	37	-42	238	-249	484	106	-666	-199	-----	-----	-----	-----	-----	-----	-----	-----	0.716	0.272	0.99	Yes	0.672	0.319	1.00	Yes	1.00	**4.23**
		$U_{17} - L_{17}$	-----	-421.17	77	-90	200	-221	504	196	-112	-14	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.212	1	Yes	0.727	0.224	0.96	Yes	1.00	**2.70**
		$U_{18} - L_{18}$	-----	-460.27	179	-185	372	-385	682	174	462	133	-----	-----	-----	-----	-----	-----	-----	-----	0.674	0.322	1	Yes	0.640	0.218	0.86	Yes	1.00	**2.60**
		$U_{19} - L_{19}$	-----	-563.08	187	-200	404	-428	594	114	565	89	-----	-----	-----	-----	-----	-----	-----	-----	0.703	0.289	1	Yes	0.655	0.199	0.86	Yes	1.00	**3.04**
		$U_{20} - L_{20}$	-----	-501.87	241	-290	406	-471	455	60	377	49	-----	-----	-----	-----	-----	-----	-----	-----	0.663	0.329	1	Yes	0.584	0.219	0.81	Yes	1.00	**2.13**
	Structure 2	$U_0 - L_0$	-----	-642.45	-155	257	-256	443	60	10	-863	-146	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.229	1	Yes	0.689	0.188	0.88	Yes	1.00	**1.62**
		$U_1 - L_1$	-----	-711.08	-188	196	-546	548	618	151	-429	-108	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.145	0.96	Yes	0.762	0.233	1.00	Yes	1.00	**2.72**
		$U_2 - L_2$	-----	-595.02	-136	151	-431	456	618	266	-383	161	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.175	0.98	Yes	0.758	0.233	1.00	Yes	1.00	**2.48**
		$U_3 - L_3$	-----	-462.78	-65	76	-209	229	546	254	-241	134	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.212	1	Yes	0.726	0.209	0.94	Yes	1.00	**2.11**
		$U_4 - L_4$	-----	-318.54	-3	14	-182	196	574	224	-615	9	-----	-----	-----	-----	-----	-----	-----	-----	0.722	0.273	1	Yes	0.674	0.251	0.93	Yes	1.00	**2.80**
		$U_5 - L_5$	-----	-255.68	89	-84	-135	168	580	168	-1150	-161	-----	-----	-----	-----	-----	-----	-----	-----	0.578	0.418	1	Yes	0.541	0.215	0.76	Yes	1.00	**4.31**
		$U_6 - L_6$	196.74	-----	119	-132	-53	58	598	162	-1632	-366	0.354	0.641	1.00	Yes	0.195	0.352	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.97**
		$U_7 - L_7$	-----	-185.43	97	-113	117	-133	659	147	-2463	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.419	0.574	1	Yes	0.392	0.170	0.57	Yes	1.00	**2.37**
		$U_8 - L_8$	-----	-468.39	167	-186	346	-369	197	-163	-600	-239	-----	-----	-----	-----	-----	-----	-----	-----	0.679	0.179	0.86	Yes	0.675	0.323	1.00	Yes	1.00	**2.80**
		$U_9 - L_9$	-----	-602.15	279	-283	464	-485	931	486	-1997	-473	-----	-----	-----	-----	-----	-----	-----	-----	0.670	0.321	1	Yes	0.645	0.206	0.86	Yes	1.00	**2.18**
		$U_{10} - L_{10}$	-----	-754.57	236	-235	518	-523	1159	716	-216	94	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.252	1	Yes	0.705	0.231	0.94	Yes	1.00	**2.89**
		$U_{11} - L_{11}$	-----	-727.92	226	-219	444	-453	1203	694	389	375	-----	-----	-----	-----	-----	-----	-----	-----	0.732	0.262	1	Yes	0.681	0.200	0.89	Yes	1.00	**2.42**
		$U_{12} - L_{12}$	-----	-729.73	183	-164	366	-357	1485	652	-1139	21	-----	-----	-----	-----	-----	-----	-----	-----	0.700	0.299	1	Yes	0.633	0.157	0.79	Yes	1.00	**2.36**
		$U_{13} - L_{13}$	-----	-625.68	222	-221	489	-474	1146	300	734	265	-----	-----	-----	-----	-----	-----	-----	-----	0.697	0.297	1	Yes	0.603	0.234	0.84	Yes	1.00	**2.44**
		$U_{14} - L_{14}$	-----	-1235.50	-59	50	-56	44	910	-149	-539	-420	-----	-----	-----	-----	-----	-----	-----	-----	0.904	0.087	1	Yes	0.819	0.010	0.83	Yes	1.00	**2.89**
		$U_{15} - L_{15}$	-----	-685.00	-248	261	-631	614	657	57	-681	-161	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.231	1	Yes	0.660	0.302	0.97	Yes	1.00	**2.98**
		$U_{16} - L_{16}$	-----	-616.49	-180	153	-381	365	755	169	-1729	-211	-----	-----	-----	-----	-----	-----	-----	-----	0.712	0.280	1	Yes	0.661	0.162	0.83	Yes	1.00	**1.79**
		$U_{17} - L_{17}$	-----	-646.56	-193	186	-523	529	705	178	-502	6	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.172	0.97	Yes	0.753	0.245	1.00	Yes	1.00	**2.71**
		$U_{18} - L_{18}$	-----	-585.06	-180	179	-458	492	640	193	-622	-35	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.171	0.96	Yes	0.746	0.252	1.00	Yes	1.00	**2.65**
		$U_{19} - L_{19}$	-----	-479.52	-108	106	-286	288	533	165	-729	-51	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.208	0.93	Yes	0.716	0.277	1.00	Yes	1.00	**2.58**
		$U_{20} - L_{20}$	-----	-280.29	-68	72	-122	138	549	169	-1677	-252	-----	-----	-----	-----	-----	-----	-----	-----	0.575	0.423	1	Yes	0.537	0.158	0.70	Yes	1.00	**1.77**
	Structure 3	$U_0 - L_0$	-----	-586.72	-134	236	-238	401	114	15	-659	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.222	1	Yes	0.683	0.186	0.87	Yes	1.00	**1.72**
		$U_1 - L_1$	-----	-648.76	-207	206	-516	506	618	142	-470	-42	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.162	0.98	Yes	0.755	0.239	1.00	Yes	1.00	**2.76**
		$U_2 - L_2$	-----	-547.37	-159	170	-379	405	660	305	-500	104	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.194	1	Yes	0.761	0.230	1.00	Yes	1.00	**2.45**
		$U_3 - L_3$	-----	-407.61	-70	85	-186	208	567	271	-376	99	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.232	1	Yes	0.703	0.211	0.92	Yes	1.00	**1.92**
		$U_4 - L_4$	-----	-229.57	-46	53	-121	139	585	231	-1990	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.517	0.480	1	Yes	0.486	0.177	0.67	Yes	1.00	**1.94**
		$U_5 - L_5$	-----	-207.43	70	-71	-136	163	836	229	-1412	-92	-----	-----	-----	-----	-----	-----	-----	-----	0.465	0.534	1	Yes	0.439	0.208	0.65	Yes	1.00	**9.08**
		$U_6 - L_6$	-----	-135.55	66	-74	94	-102	848	254	-2581	-439	-----	-----	-----	-----	-----	-----	-----	-----	0.302	0.694	1	Yes	0.287	0.131	0.42	Yes	1.00	**3.59**
		$U_7 - L_7$	-----	-369.68	102	-118	226	-254	543	180	-276	-87	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.229	0.98	Yes	0.708	0.290	1.00	Yes	1.00	**2.77**
		$U_8 - L_8$	-----	-488.10	157	-154	315	-316	1044	590	-111	67	-----	-----	-----	-----	-----	-----	-----	-----	0.705	0.290	1	Yes	0.670	0.270	0.94	Yes	1.00	**3.02**
		$U_9 - L_9$	-----	-596.50	182	-227	372	-461	1314	787	261	303	-----	-----	-----	-----	-----	-----	-----	-----	0.715	0.280	1	Yes	0.694	0.214	0.91	Yes	1.00	**3.14**
		$U_{10} - L_{10}$	-----	-647.48	155	-145	280	-302	1595	879	-1518	-332	-----	-----	-----	-----	-----	-----	-----	-----	0.671	0.324	1	Yes	0.639	0.157	0.80	Yes	1.00	**2.64**
		$U_{11} - L_{11}$	-----	-505.66	213	-248	339	-391	1098	519	718	368	-----	-----	-----	-----	-----	-----	-----	-----	0.603	0.395	1	Yes	0.571	0.217	0.79	Yes	1.00	**1.43**
		$U_{12} - L_{12}$	-----	-1231.51	-20	1	-12	-39	1157	244	-137	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.889	0.110	1	Yes	0.854	0.007	0.87	Yes	1.00	**3.18**
		$U_{13} - L_{13}$	-----	-451.05	-155	170	-289	307	652	94	-492	-89	-----	-----	-----	-----	-----	-----	-----	-----	0.754	0.238	1	Yes	0.696	0.302	1.00	Yes	1.00	**1.95**
		$U_{14} - L_{14}$	-----	-420.20	-101	99	-160	168	605	253	-1657	-553	-----	-----	-----	-----	-----	-----	-----	-----	0.636	0.361	1	Yes	0.603	0.147	0.75	Yes	1.00	**1.67**
		$U_{15} - L_{15}$	-----	-377.34	-81	91	-161	187	514	254	-108	-241	-----	-----	-----	-----	-----	-----	-----	-----	0.683	0.309	1	Yes	0.651	0.189	0.85	Yes	1.00	**3.66**
		$U_{16} - L_{16}$	-----	-142.28	-93	94	-86	91	1082	385	-2476	-795	-----	-----	-----	-----	-----	-----	-----	-----	0.313	0.680	1	Yes	0.301	0.120	0.43	Yes	1.00	**3.36**
		$U_{17} - L_{17}$	182.20	-----	-181	203	36	-57	480	178	-1423	-620	0.328	0.671	1.00	Yes	0.180	0.369	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.41**
		$U_{18} - L_{18}$	152.47	-255.16	-158	172	201	-236	468	147	-1341	-495	0.274	0.689	0.97	Yes	0.151	0.379	0.54	Yes	0.558	0.440	1	Yes	0.540	0.301	0.85	Yes	1.00	**7.23**
		$U_{19} - L_{19}$	-----	-297.67	-50	32	179	-201	422	211	480	237	-----	-----	-----	-----	-----	-----	-----	-----	0.650	0.348	1	Yes	0.630	0.256	0.89	Yes	1.00	**4.50**
		$U_{20} - L_{20}$	-----	-239.23	79	-91	174	-208	593	190	589	189	-----	-----	-----	-----	-----	-----	-----	-----	0.534	0.456	1	Yes	0.506	0.266	0.78	Yes	1.00	**1.95**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
South Truss - Diagonals	Structure 1	U_0 - L_1	561.95	-----	4	32	3	-14	-861	-481	133	199	0.737	0.254	1.00	Yes	0.445	0.140	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.69**
		U_1 - L_2	355.49	-----	-92	-5	19	-18	-831	-783	451	256	0.639	0.357	1.00	Yes	0.352	0.197	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.45**
		U_2 - L_3	-----	-248.58	-29	-21	-12	-48	-223	-158	-1554	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.572	0.422	1	Yes	0.526	0.062	0.59	Yes	1.00	**3.27**
		U_3 - L_4	-----	-370.35	8	-26	36	-55	-50	-104	-370	-56	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.147	1	Yes	0.784	0.070	0.86	Yes	1.00	**2.92**
		U_4 - L_5	561.60	-----	-64	95	-21	33	303	192	-201	11	0.824	0.167	1.00	Yes	0.453	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.96**
		U_5 - L_6	641.83	-----	-118	279	-8	117	177	349	-413	139	0.759	0.234	1.00	Yes	0.417	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.22**
		U_6 - L_7	620.36	-----	-266	253	-37	93	124	604	-567	38	0.733	0.261	1.00	Yes	0.403	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.88**
		U_7 - L_8	635.56	-----	-42	361	31	93	141	-33	-217	-135	0.751	0.245	1.00	Yes	0.413	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.65**
		U_8 - L_9	943.78	-----	-79	371	14	187	-611	-373	545	270	0.754	0.243	1.00	Yes	0.467	0.137	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.40**
		U_9 - L_{10}	944.90	-----	-290	246	-115	128	-876	-566	546	233	0.755	0.241	1.00	Yes	0.468	0.137	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		U_{10} - L_{11}	931.39	-----	-212	211	-83	94	-845	-684	165	-22	0.787	0.209	1.00	Yes	0.487	0.119	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		U_{11} - L_{12}	745.41	-----	-234	85	-96	47	-831	-1001	148	-37	0.737	0.258	1.00	Yes	0.406	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.73**
		U_{12} - L_{13}	565.94	-----	-203	141	-81	61	-644	-579	158	15	0.690	0.303	1.00	Yes	0.434	0.173	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.89**
		U_{13} - L_{14}	349.72	-----	-83	13	-32	10	-901	-876	188	3	0.629	0.367	1.00	Yes	0.346	0.202	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.11**
		U_{15} - L_{14}	314.68	-190.20	-124	-37	31	-51	947	-346	-343	-185	0.566	0.432	1.00	Yes	0.311	0.238	0.55	Yes	0.446	0.461	0.91	Yes	0.402	0.158	0.57	Yes	1.00	**9.10**
		U_{16} - L_{15}	391.68	-----	-156	88	-11	-8	327	28	-298	-124	0.704	0.294	1.00	Yes	0.387	0.162	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.70**
		U_{17} - L_{16}	528.33	-----	-149	95	-44	21	97	0	-311	-109	0.775	0.223	1.00	Yes	0.426	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.37**
		U_{18} - L_{17}	617.40	-----	-338	254	-128	86	76	55	-405	-118	0.730	0.265	1.00	Yes	0.401	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.70**
		U_{19} - L_{18}	692.51	-----	-329	248	-130	94	-94	47	-458	-206	0.750	0.243	1.00	Yes	0.413	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.86**
		U_{20} - L_{19}	685.94	-----	-415	333	-175	141	-166	-138	-258	-142	0.743	0.255	1.00	Yes	0.409	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.81**
	Structure 2	U_0 - L_1	716.23	-----	-187	278	-97	121	-1073	-355	-126	20	0.709	0.289	1.00	Yes	0.390	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.37**
		U_1 - L_2	704.09	-----	-381	290	-152	107	-787	-569	170	-6	0.697	0.294	1.00	Yes	0.383	0.162	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.28**
		U_2 - L_3	576.30	-----	-308	246	-104	76	-759	-541	155	-2	0.681	0.312	1.00	Yes	0.375	0.172	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.25**
		U_3 - L_4	515.13	-----	-167	109	-44	19	-760	-485	194	29	0.687	0.312	1.00	Yes	0.378	0.171	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.29**
		U_4 - L_5	311.76	-----	-125	72	13	-26	-951	-458	271	61	0.561	0.435	1.00	Yes	0.308	0.239	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		U_5 - L_6	243.21	-239.07	-83	2	68	-69	-1410	-496	403	128	0.437	0.515	0.96	Yes	0.241	0.283	0.53	Yes	0.565	0.429	1	Yes	0.506	0.107	0.62	Yes	1.00	**5.13**
		U_6 - L_7	-----	-378.50	-3	-44	41	-102	-252	-554	-624	-181	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.185	1	Yes	0.725	0.116	0.85	Yes	1.00	**4.21**
		U_8 - L_7	539.06	-----	-205	109	-96	59	-31	616	-535	-576	0.687	0.310	1.00	Yes	0.433	0.177	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.27**
		U_8 - L_9	718.69	-----	-346	235	-166	141	144	-15	-238	-22	0.778	0.216	1.00	Yes	0.428	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.63**
		U_{10} - L_9	789.48	-----	-276	252	-138	138	85	552	-163	83	0.781	0.211	1.00	Yes	0.430	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.44**
		U_{11} - L_{10}	868.94	-----	-347	294	-133	169	188	324	-386	174	0.792	0.200	1.00	Yes	0.435	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.69**
		U_{12} - L_{11}	841.47	-----	-340	343	-128	177	-61	251	-598	64	0.767	0.227	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.58**
		U_{13} - L_{12}	732.60	-----	-418	384	-157	162	-239	164	-532	-6	0.725	0.273	1.00	Yes	0.399	0.150	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.63**
		U_{14} - L_{13}	773.92	-----	-273	440	-8	119	-128	64	-157	-118	0.766	0.228	1.00	Yes	0.421	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.14**
		U_{14} - L_{15}	592.79	-----	-188	346	8	151	-322	-117	569	259	0.701	0.299	1.00	Yes	0.385	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.87**
		U_{15} - L_{16}	585.81	-----	-347	319	-154	149	52	-370	603	197	0.693	0.306	1.00	Yes	0.381	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.96**
		U_{16} - L_{17}	669.43	-----	-319	348	-113	158	-392	-288	538	210	0.725	0.266	1.00	Yes	0.399	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.45**
		U_{17} - L_{18}	628.93	-----	-282	279	-100	142	-505	-323	525	182	0.744	0.255	1.00	Yes	0.409	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.34**
		U_{18} - L_{19}	602.38	-----	-275	248	-77	109	-680	-477	366	145	0.712	0.279	1.00	Yes	0.392	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.68**
		U_{19} - L_{20}	512.63	-----	-182	124	-45	62	-699	-896	383	171	0.654	0.346	1.00	Yes	0.360	0.199	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.74**
		U_{20} - L_{21}	351.91	-----	-114	96	-16	25	-740	-329	415	221	0.633	0.359	1.00	Yes	0.348	0.198	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.25**
		U_{21} - L_{22}	235.15	-----	-83	24	-24	-79	-1052	-433	-1619	-652	0.423	0.575	1.00	Yes	0.233	0.316	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.62**
		U_{23} - L_{22}	372.54	-----	-124	37	2	22	575	-77	-260	48	0.670	0.325	1.00	Yes	0.369	0.179	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.26**
		U_{24} - L_{23}	418.63	-----	-132	104	-19	37	268	91	-219	-6	0.753	0.246	1.00	Yes	0.414	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.51**
		U_{25} - L_{24}	563.53	-----	-179	165	-43	77	128	568	-261	-33	0.719	0.276	1.00	Yes	0.395	0.158	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.43**
		U_{26} - L_{25}	659.67	-----	-260	292	-65	124	280	248	-225	-1	0.780	0.216	1.00	Yes	0.429	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.63**
		U_{27} - L_{26}	626.75	-----	-264	305	-82	129	102	269	-430	139	0.741	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.41**
		U_{28} - L_{27}	655.27	-----	-279	348	-71	128	-53	218	-630	31	0.710	0.282	1.00	Yes	0.390	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.60**
		U_{29} - L_{28}	581.39	-----	-342	322	-63	80	10	574	-633	-77	0.687	0.308	1.00	Yes	0.378	0.170	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.82**
		U_{30} - L_{29}	581.57	-----	-137	371	62	37	530	95	-282	-249	0.688	0.306	1.00	Yes	0.378	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.11**
		U_{30} - L_{31}	724.83	-----	-255	431	-43	219	-466	-242	503	233	0.717	0.275	1.00	Yes	0.394	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.79**
		U_{31} - L_{32}	733.60	-----	-425	378	-225	212	-423	-247	472	139	0.726	0.268	1.00	Yes	0.399	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.06**
		U_{32} - L_{33}	818.04	-----	-336	330	-154	192	-749	-524	304	81	0.745	0.245	1.00	Yes	0.410	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.40**
		U_{33} - L_{34}	805.58	-----	-317	259	-140	167	-953	-666	266	65	0.734	0.265	1.00	Yes	0.404	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.41**
		U_{34} - L_{35}	725.57	-----	-296	209	-138	136	-947	-634	112	-42	0.718	0.279	1.00	Yes	0.395	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.59**
		U_{35} - L_{36}	642.46	-----	-309	199	-160	131	-883	-529	129	-8	0.696	0.304	1.00	Yes	0.383	0.167	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.55**
		U_{36} - L_{37}	513.35	-----	-174	143	-82	64	-913	-608	90	-69	0.655	0.341	1.00	Yes	0.412	0.197	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.39**
		U_{38} - L_{37}	-----	-352.07	-55	-65	33	-91	115	541	363	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.761	0.234	1	Yes	0.674	0.104	0.78	Yes	1.00	**4.42**
		U_{39} - L_{38}	376.48	-211.10	-124	41	59	-65	543	-90	-365	-80	0.677	0.315	1.00	Yes	0.372	0.174	0.55	Yes	0.503	0.313	0.82	Yes	0.447	0.158	0.61	Yes	1.00	**5.42**
		U_{40} - L_{39}	393.17	-----	-139	90	2	-16	154	39	-378	-100	0.707	0.287	1.00	Yes	0.389	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.49**
		U_{41} - L_{40}	559.80	-----	-178	125	-51	25	8	7	-413	-181	0.746	0.249	1.00	Yes	0.410	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.49**
		U_{42} - L_{41}	620.23	-----	-327	262	-112	83	-32	36	-409	-173	0.733	0.259	1.00	Yes	0.403	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.56**
		U_{43} - L_{42}	772.44	-----	-376	309	-125	93	-90	85	-388	-200	0.764	0.232	1.00	Yes	0.420	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.26**
		U_{44} - L_{43}	786.68	-----	-404	381	-170	149	51	57	-210	-92	0.778	0.219	1.00	Yes	0.428	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.45**
	Structure 3	U_0 - L_1	650.40	-----	-175	230	-78	102	-1026	-377	-148	3	0.704	0.286	1.00	Yes	0.387	0.157	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.46**
		U_1 - L_2	636.93	-----	-340	243	-159	109	-802	-540	161	-42	0.690	0.306	1.00	Yes	0.379	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.30**
		U_2 - L_3	561.66	-----	-303	240	-125	86	-873	-618	128	-29	0.664	0.330	1.00	Yes	0.365	0.181	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.47**
		U_3 - L_4	459.82	-----	-133	73	-43	21	-668	-803	150	-29	0.674	0.322	1.00	Yes	0.371	0.177	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.23**
		U_4 - L_5	278.77	-----	-139	63	10	-23	-1078	-667	332	90	0.501	0.490	1.00	Yes	0.276	0.269	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.02**
		U_5 - L_6	-----	-209.38	-28	-61	18	-104	-501	-531	-1066	-420	-----	-----	-----	-----	-----	-----	-----	-----	0.491	0.500	1	Yes	0.443	0.133	0.58	Yes	1.00	**4.04**
		U_7 - L_6	441.07	-----	-96	43	-38	12	153	-132	-286	-163	0.793	0.206	1.00	Yes	0.436	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.25**
		U_8 - L_7	632.15	-----	-204	166	-93	70	246	114	-241	-103	0.771	0.226	1.00	Yes	0.485	0.127	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.57**
		U_8 - L_9	833.56	-----	-232	156	-81	64	439	381	-365	107	0.825	0.173	1.00	Yes	0.454	0.095	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.05**
		U_{10} - L_9	962.50	-----	-187	247	-56	101	472	513	-424	142	0.813	0.182	1.00	Yes	0.503	0.103	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.45**
		U_{11} - L_{10}	929.73	-----	-281	256	-82	106	517	996	-538	-34	0.743	0.252	1.00	Yes	0.460	0.144	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.79**
		U_{12} - L_{11}	940.43	-----	-22	402	20	132	403	274	-507	-112	0.752	0.244	1.00	Yes	0.466	0.137	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.40**
		U_{12} - L_{13}	602.42	-----	-87	299	12	163	-278	-224	620	351	0.712	0.283	1.00	Yes	0.392	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.87**
		U_{13} - L_{14}	596.74	-----	-279	215	-98	131	-443	-564	722	321	0.705	0.290	1.00	Yes	0.388	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.57**
		U_{14} - L_{15}	505.91	-----	-150	211	-56	101	-1507	-241	264	55	0.598	0.393	1.00	Yes	0.329	0.216	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.74**
		U_{15} - L_{16}	531.18	-----	-75	61	-25	29	-403	-585	216	52	0.779	0.212	1.00	Yes	0.428	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.88**
		U_{17} - L_{16}	-----	-328.59	-28	-56	39	-24	-63	79	-471	-116	-----	-----	-----	-----	-----	-----	-----	-----	0.751	0.244	1	Yes	0.695	0.072	0.77	Yes	1.00	**5.18**
		U_{18} - L_{17}	-----	-349.37	-112	-11	69	-42	283	-120	-203	-65	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.194	1	Yes	0.739	0.143	0.89	Yes	1.00	**8.21**
		U_{19} - L_{18}	462.27	-----	-84	6	41	-30	110	53	-206	-118	0.831	0.167	1.00	Yes	0.457	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.07**
		U_{20} - L_{19}	619.87	-----	-143	81	-24	-3	-3	23	-70	-4	0.813	0.184	1.00	Yes	0.491	0.102	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.12**

Axial AB Operating

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression											
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Upper Chord	Structure 1	U_0 - U_1			-----	-596.64	-168	161	-430	-570	6	12	-67	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.187	1.00	Yes	0.805	0.135	0.95	Yes	1.00	**7.97**
		U_1 - U_2			-----	-596.66	-54	117	-160	-621	-7	-7	-17	-154	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.180	1.00	Yes	0.805	0.148	0.96	Yes	1.00	**4.30**
		U_2 - U_3			-----	-637.38	-107	305	-454	-300	10	26	-26	129	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.128	1.00	Yes	0.859	0.108	0.97	Yes	1.00	**3.99**
		U_3 - U_4			356.91	-558.42	84	318	-389	-612	5	38	156	62	0.409	0.172	0.59	Yes	0.281	0.118	0.40	Yes	0.760	0.233	1.00	Yes	0.753	0.145	0.90	Yes	1.00	**3.93**
		U_4 - U_5			380.44	-584.45	141	309	-869	-151	22	-31	93	-51	0.436	0.222	0.66	Yes	0.299	0.153	0.46	Yes	0.795	0.196	1.00	Yes	0.788	0.207	1.00	Yes	1.00	**4.14**
		U_5 - U_6			725.26	-----	284	501	-459	271	-158	-79	250	-288	0.831	0.168	1.00	Yes	0.561	0.110	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.61**
		U_6 - U_7			896.22	-----	397	238	-332	41	-319	-132	383	-120	0.857	0.137	1.00	Yes	0.599	0.094	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.13**
		U_7 - U_8			1008.26	-----	-395	1800	-163	877	-210	-222	-112	-222	0.699	0.295	1.00	Yes	0.487	0.201	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.48**
		U_8 - U_9			851.81	-----	1434	-416	687	-167	-431	-91	-237	-119	0.698	0.293	1.00	Yes	0.477	0.200	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.05**
		U_9 - U_{10}			760.22	-----	247	336	266	-276	-257	31	-17	566	0.825	0.166	1.00	Yes	0.558	0.111	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.75**
		U_{10} - U_{11}			-----	-619.53	372	-27	303	-927	22	103	212	143	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.165	0.97	Yes	0.791	0.208	1.00	Yes	1.00	**5.72**
		U_{11} - U_{12}			-----	-891.81	230	-104	48	-653	112	403	154	613	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.150	1.00	Yes	0.837	0.108	0.95	Yes	1.00	**3.52**
		U_{12} - U_{13}			-----	-1278.86	10	-234	-193	-576	345	206	538	331	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.133	1.00	Yes	0.854	0.079	0.94	Yes	1.00	**3.54**
		U_{13} - U_{14}			-----	-1351.25	-154	-389	-462	-1406	225	177	383	502	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.213	1.00	Yes	0.775	0.155	0.93	Yes	1.00	**2.81**
		U_{14} - U_{15}			-----	-1352.15	-280	-254	-1312	-605	213	29	590	170	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.211	1.00	Yes	0.775	0.145	0.92	Yes	1.00	**2.81**
		U_{15} - U_{16}			-----	-1486.36	-143	-431	-557	-797	79	36	431	-42	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.136	1.00	Yes	0.852	0.088	0.95	Yes	1.00	**3.44**
		U_{16} - U_{17}			-----	-1419.66	-337	-210	-1093	-402	133	-53	600	55	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.169	1.00	Yes	0.814	0.121	0.94	Yes	1.00	**3.87**
		U_{17} - U_{18}			-----	-1107.67	-203	-80	-678	107	-14	-62	463	-59	-----	-----	-----	-----	-----	-----	-----	-----	0.878	0.122	1.00	Yes	0.867	0.110	0.98	Yes	1.00	**4.12**
		U_{18} - U_{19}			-----	-736.29	-191	-75	-712	-41	14	-116	463	-279	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.156	1.00	Yes	0.828	0.143	0.98	Yes	1.00	**4.40**
		U_{19} - U_{20}			-----	-466.93	-256	291	-1536	2332	-71	-120	410	-1334	-----	-----	-----	-----	-----	-----	-----	-----	0.530	0.332	0.87	Yes	0.525	0.469	1.00	Yes	1.00	**9.43**
	Structure 2	U_0 - U_1			-----	-650.17	-103	-12	-176	-1298	8	-61	-55	-119	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.220	1.00	Yes	0.768	0.220	0.99	Yes	1.00	**9.14**
		U_1 - U_2			-----	-881.26	-55	-145	46	-882	-73	-220	-35	-153	-----	-----	-----	-----	-----	-----	-----	-----	0.857	0.142	1.00	Yes	0.851	0.134	0.99	Yes	1.00	**4.98**
		U_2 - U_3			-----	-1214.93	-108	-226	-71	-1139	-23	409	-85	106	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.131	1.00	Yes	0.862	0.116	0.98	Yes	1.00	**4.36**
		U_3 - U_4			-----	-1397.42	-413	-389	-778	-1019	559	961	192	173	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.193	1.00	Yes	0.796	0.091	0.89	Yes	1.00	**3.49**
		U_4 - U_5			-----	-1557.30	-453	-327	-831	-1395	809	320	237	138	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.194	1.00	Yes	0.800	0.116	0.92	Yes	1.00	**3.36**
		U_5 - U_6			-----	-1641.71	-392	70	-1150	-770	182	-246	263	378	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.143	1.00	Yes	0.843	0.095	0.94	Yes	1.00	**3.26**
		U_6 - U_7			-----	-1398.74	-260	-82	-959	-1435	-152	-196	338	136	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.193	1.00	Yes	0.796	0.128	0.93	Yes	1.00	**2.66**
		U_7 - U_8			-----	-1405.45	-179	-154	-1530	-824	-114	-192	206	52	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.186	1.00	Yes	0.800	0.136	0.94	Yes	1.00	**2.69**
		U_8 - U_9			-----	-1275.47	-245	157	-960	-399	-108	-208	310	-228	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.121	1.00	Yes	0.865	0.102	0.97	Yes	1.00	**2.98**
		U_9 - U_{10}			-----	-968.63	-50	374	-1135	-129	-149	-157	258	-50	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.150	1.00	Yes	0.836	0.138	0.98	Yes	1.00	**3.16**
		U_{10} - U_{11}			655.56	-826.15	289	468	-1086	-96	-216	-183	333	-135	0.554	0.194	0.75	Yes	0.377	0.126	0.51	Yes	0.826	0.170	1.00	Yes	0.821	0.153	0.98	Yes	1.00	**4.85**
		U_{11} - U_{12}			934.75	-----	313	593	-1083	389	-388	-145	428	-112	0.790	0.205	1.00	Yes	0.530	0.137	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.37**
		U_{12} - U_{13}			1303.40	-----	-99	-175	-326	-131	26	-747	-234	-479	0.880	0.112	1.00	Yes	0.627	0.078	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.60**
		U_{13} - U_{14}			1237.91	-----	-863	3525	-432	1607	-416	-869	-498	-656	0.609	0.386	1.00	Yes	0.431	0.253	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.51**
		U_{14} - U_{15}			1282.80	-----	3206	-321	1302	68	-1041	-627	-818	-609	0.631	0.368	1.00	Yes	0.447	0.242	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.26**
		U_{15} - U_{16}			1509.80	-----	111	137	13	190	-703	156	-316	14	0.913	0.081	1.00	Yes	0.649	0.057	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.05**
		U_{16} - U_{17}			1190.20	-----	606	452	678	-557	-339	-82	246	190	0.877	0.121	1.00	Yes	0.584	0.079	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.91**
		U_{17} - U_{18}			822.58	-----	427	402	346	-384	-4	195	79	642	0.826	0.166	1.00	Yes	0.550	0.110	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		U_{18} - U_{19}			820.09	-522.55	527	425	393	-722	61	113	351	276	0.823	0.174	1.00	Yes	0.540	0.111	0.66	Yes	0.621	0.184	0.81	Yes	0.617	0.123	0.74	Yes	1.00	**5.62**
		U_{19} - U_{20}			610.63	-777.42	388	332	-125	-534	1	-61	128	417	0.573	0.142	0.72	Yes	0.380	0.093	0.48	Yes	0.863	0.128	1.00	Yes	0.858	0.086	0.95	Yes	1.00	**4.68**
		U_{20} - U_{21}			487.56	-951.32	218	210	-237	-570	-84	-73	291	169	0.378	0.114	0.50	Yes	0.265	0.075	0.34	Yes	0.875	0.122	1.00	Yes	0.868	0.083	0.96	Yes	1.00	**4.21**
		U_{21} - U_{22}			311.99	-834.78	74	153	-508	-1122	-29	30	185	340	0.242	0.200	0.45	Yes	0.172	0.134	0.31	Yes	0.767	0.228	1.00	Yes	0.762	0.163	0.93	Yes	1.00	**3.10**
		U_{22} - U_{23}			313.32	-837.30	163	56	-1108	-506	-3	-9	406	83	0.243	0.205	0.45	Yes	0.172	0.138	0.32	Yes	0.770	0.226	1.00	Yes	0.764	0.161	0.93	Yes	1.00	**3.11**
		U_{23} - U_{24}			451.03	-960.78	186	191	-508	-382	-107	-27	318	-163	0.350	0.108	0.46	Yes	0.245	0.071	0.32	Yes	0.883	0.112	1.00	Yes	0.877	0.074	0.96	Yes	1.00	**4.02**
		U_{24} - U_{25}			529.89	-795.52	299	305	-693	-99	-133	-27	391	-136	0.497	0.164	0.67	Yes	0.329	0.107	0.44	Yes	0.883	0.116	1.00	Yes	0.878	0.111	0.99	Yes	1.00	**4.23**
		U_{25} - U_{26}			813.10	-684.63	414	456	-743	372	-260	-3	301	-249	0.816	0.170	0.99	Yes	0.535	0.109	0.65	Yes	0.813	0.182	1.00	Yes	0.809	0.126	0.94	Yes	1.00	**5.91**
		U_{26} - U_{27}			844.22	-----	469	327	-618	441	-311	4	262	-287	0.847	0.150	1.00	Yes	0.564	0.099	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.56**
		U_{27} - U_{28}			1171.39	-----	445	446	-656	627	-475	81	239	-217	0.863	0.132	1.00	Yes	0.574	0.087	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.91**
		U_{28} - U_{29}			1515.31	-----	-305	123	-84	-3	110	-558	-340	-328	0.916	0.082	1.00	Yes	0.652	0.057	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.80**
		U_{29} - U_{30}			1299.40	-----	-399	3305	-19	1054	-501	-741	-310	-207	0.639	0.357	1.00	Yes	0.452	0.234	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.71**
		U_{30} - U_{31}			1289.32	-----	3230	-631	1071	-131	-895	-446	-314	-194	0.634	0.360	1.00	Yes	0.449	0.237	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.73**
		U_{31} - U_{32}			1358.15	-----	-52	171	-134	-181	-533	224	183	479	0.917	0.074	1.00	Yes	0.654	0.051	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.01**
		U_{32} - U_{33}			975.17	-----	511	328	437	-812	-102	-16	469	443	0.824	0.172	1.00	Yes	0.553	0.115	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.32**
		U_{33} - U_{34}			879.71	-718.75	478	371	-70	-914	-12	213	414	977	0.743	0.248	1.00	Yes	0.506	0.164	0.67	Yes	0.719	0.217	0.94	Yes	0.714	0.129	0.85	Yes	1.00	**5.84**
		U_{34} - U_{35}			450.06	-943.92	413	124	-62	-1081	179	149	591	463	0.330	0.196	0.53	Yes	0.223	0.132	0.36	Yes	0.819	0.177	1.00	Yes	0.815	0.132	0.95	Yes	1.00	**4.20**
		U_{35} - U_{36}			-----	-1245.71	212	-104	-313	-905	96	86	360	438	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.146	1.00	Yes	0.845	0.096	0.95	Yes	1.00	**3.76**
		U_{36} - U_{37}			-----	-1378.29	-40	52	-744	-1564	85	-3	407	268	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.201	1.00	Yes	0.785	0.139	0.93	Yes	1.00	**3.30**
		U_{37} - U_{38}			-----	-1381.04	143	-128	-1458	-953	41	23	324	232	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.204	1.00	Yes	0.786	0.130	0.92	Yes	1.00	**3.30**
		U_{38} - U_{39}			-----	-1635.41	186	-265	-728	-1264	129	-26	540	-68	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.148	1.00	Yes	0.840	0.105	0.95	Yes	1.00	**3.85**
		U_{39} - U_{40}			-----	-1569.93	-156	-328	-1531	-947	26	-12	444	93	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.186	1.00	Yes	0.806	0.127	0.94	Yes	1.00	**3.91**
		U_{40} - U_{41}			-----	-1458.61	-204	-330	-1166	-798	54	-99	393	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.154	1.00	Yes	0.831	0.104	0.94	Yes	1.00	**4.17**
		U_{41} - U_{42}			-----	-1223.33	-99	-158	-1141	-3	-72	-80	392	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.119	1.00	Yes	0.868	0.116	0.99	Yes	1.00	**4.77**
		U_{42} - U_{43}			-----	-858.26	-94	-68	-895	-186	-33	-71	330	-310	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.158	1.00	Yes	0.828	0.136	0.97	Yes	1.00	**5.12**
		U_{43} - U_{44}			-----	-531.80	58	-317	-1733	2170	-55	73	150	-1059	-----	-----	-----	-----	-----	-----	-----	-----	0.632	0.240	0.88	Yes	0.628	0.368	1.00	Yes	1.00	**8.04**
	Structure 3	U_0 - U_1			-----	-682.57	-25	-145	-210	-1106	9	-79	-158	-225	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.218	1.00	Yes	0.768	0.223	1.00	Yes	1.00	**12.00**
		U_1 - U_2			-----	-753.24	-38	-133	140	-663	-64	-234	-69	-218	-----	-----	-----	-----	-----	-----	-----	-----	0.855	0.138	1.00	Yes	0.847	0.133	0.99	Yes	1.00	**4.89**
		U_2 - U_3			-----	-1107.02	-80	-157	37	-666	-52	342	-122	183	-----	-----	-----	-----	-----	-----	-----	-----	0.877	0.123	1.00	Yes	0.866	0.108	0.98	Yes	1.00	**4.59**
		U_3 - U_4			-----	-1418.67	-191	-308	-383	-911	497	832	235	275	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.177	1.00	Yes	0.813	0.101	0.92	Yes	1.00	**4.35**
		U_4 - U_5			-----	-1477.90	-400	-53	-644	-545	689	231	345	169	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.135	1.00	Yes	0.847	0.071	0.92	Yes	1.00	**3.73**
		U_5 - U_6			-----	-1364.63	-188	-282	-581	-1400	142	-148	260	313	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.204	1.00	Yes	0.782	0.154	0.94	Yes	1.00	**3.02**
		U_6 - U_7			-----	-1373.89	-380	-107	-1470	-454	-88	-186	396	56	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.197	1.00	Yes	0.788	0.162	0.95	Yes	1.00	**3.06**
		U_7 - U_8			-----	-1323.75	-162	9	-517	-314	-61	-179	289	-270	-----	-----	-----	-----	-----	-----	-----	-----	0.895	0.101	1.00	Yes	0.884	0.071	0.96	Yes	1.00	**3.62**
		U_8 - U_9			-----	-929.73	-95	188	-730	10	-36	-156	267	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.880	0.111	1.00	Yes	0.872	0.121	1.00	Yes	1.00	**3.21**
		U_9 - U_{10}			-----	-638.84	-50	257	-806	201	-113	-110	221	-177	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.142	0.97	Yes	0.815	0.181	1.00	Yes	1.00	**4.29**
		U_{10} - U_{11}			743.55	-----	344	243	-566	267	-265	-162	356	-407	0.807	0.192	1.00	Yes	0.546	0.129	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.58**
		U_{11} - U_{12}			816.83	-----	-542	1574	-155	559	-211	-522	-217	-189	0.669	0.328	1.00	Yes	0.458	0.223	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.87**
		U_{12} - U_{13}			994.36	-----	1609	-260	554	12	-629	-370	-276	-270	0.689	0.308	1.00	Yes	0.481	0.210	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.78**
		U_{13} - U_{14}			881.61	-----	226	463	69	-97	-410	-212	-117	292	0.843	0.155	1.00	Yes	0.589	0.106	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.18**
		U_{14} - U_{15}			744.26	-----	485	360	307	-356	-145	-37	155	36	0.853	0.141	1.00	Yes	0.575	0.092	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.52**
		U_{15} - U_{16}			508.32	-566.72	397	280	-145	-838	-70	135	92	459	0.583	0.277	0.86	Yes	0.400	0.189	0.59	Yes	0.771	0.229	1.00	Yes	0.764	0.199	0.97	Yes	1.00	**4.85**
		U_{16} - U_{17}			506.01	-574.05	466	177	-620	-408	59	81	447	216	0.580	0.223	0.81	Yes	0.398	0.152	0.56	Yes	0.781	0.216	1.00	Yes	0.774	0.147	0.93	Yes	1.00	**4.87**
		U_{17} - U_{18}			302.54	-616.47	415	-37	-289	-480	-96	65	316	-19	0.347	0.167	0.52	Yes	0.234	0.110	0.35	Yes	0.839	0.154	1.00	Yes	0.831	0.114	0.95	Yes	1.00	**4.58**
		U_{18} - U_{19}			-----	-542.01	230	-28	-627	-332	-96	40	511	-17	-----	-----	-----	-----	-----	-----	-----	-----	0.738	0.254	1.00	Yes	0.731	0.149	0.89	Yes	1.00	**4.42**
		U_{19} - U_{20}			-----	-522.68	294	-456	-1085	1210	-214	238	412	-756	-----	-----	-----	-----	-----	-----	-----	-----	0.711	0.160	0.88	Yes	0.705	0.288	1.00	Yes	1.00	**8.16**

Axial AB Operating

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

				Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression																Controlling Bi-Axial Moment & Axial Value	Rating
								Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield													
						Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass									
						(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																								
North Truss - Lower Chord	Structure 1	L_0 - L_1		1.300	1.300	333.52	-----	-132	-189	1104	-1317	50	184	-108	-396	0.510	0.480	1.00	Yes	0.300	0.293	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**36.39**
		L_1 - L_2				484.96	-----	160	-742	137	67	-154	-85	-24	-65	0.742	0.256	1.00	Yes	0.453	0.172	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**6.25**
		L_2 - L_3				724.72	-----	-470	-622	27	121	-98	-53	-41	48	0.834	0.166	1.00	Yes	0.482	0.100	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**5.65**
		L_3 - L_4				698.08	-----	-285	-755	114	344	-70	-76	87	73	0.803	0.196	1.00	Yes	0.477	0.127	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.56**
		L_4 - L_5				-----	-522.29	-739	479	109	600	-249	164	57	37	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.164	0.97	Yes	0.796	0.196	1.00	Yes									1.00	**3.58**
		L_5 - L_6				-----	-708.79	-91	219	157	584	383	120	70	120	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.167	1.00	Yes	0.818	0.129	0.95	Yes									1.00	**3.42**
		L_6 - L_7				-----	-1180.48	-180	274	-194	312	50	56	-4	120	-----	-----	-----	-----	-----	-----	-----	-----	0.961	0.034	1.00	Yes	0.950	0.049	1.00	Yes									1.00	**4.32**
		L_7 - L_8				-----	-1268.72	2	597	-21	1355	-64	-75	41	-1	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.181	1.00	Yes	0.804	0.179	0.99	Yes									1.00	**2.89**
		L_8 - L_9				-----	-1286.85	572	-33	1266	-55	-122	-146	-56	-56	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.172	1.00	Yes	0.815	0.168	0.99	Yes									1.00	**2.92**
		L_9 - L_{10}				-----	-1162.82	265	-152	397	-185	-99	27	89	-37	-----	-----	-----	-----	-----	-----	-----	-----	0.946	0.039	0.99	Yes	0.936	0.062	1.00	Yes									1.00	**4.76**
		L_{10} - L_{11}				-----	-544.92	229	-235	626	-318	238	106	77	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.109	0.95	Yes	0.830	0.166	1.00	Yes									1.00	**4.38**
		L_{11} - L_{12}				557.88	-----	489	-932	566	-112	19	-147	94	-35	0.722	0.272	1.00	Yes	0.433	0.179	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**7.18**
		L_{12} - L_{13}				1133.30	-----	-168	-505	219	-45	62	13	24	28	0.894	0.097	1.00	Yes	0.572	0.058	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**6.61**
		L_{13} - L_{14}				1286.76	-----	306	-1632	353	-444	-1	-141	10	-2	0.757	0.237	1.00	Yes	0.490	0.144	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.32**
		L_{14} - L_{15}				1543.05	-----	-1818	-298	-369	-27	-324	30	-120	-64	0.754	0.242	1.00	Yes	0.490	0.147	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.63**
		L_{15} - L_{16}				1714.89	-----	-990	-1105	-205	-351	18	-380	-129	-53	0.838	0.160	1.00	Yes	0.538	0.094	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**6.93**
		L_{16} - L_{17}				1166.05	-----	-1368	196	-412	93	-691	96	-97	-52	0.737	0.262	1.00	Yes	0.478	0.163	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**7.30**
		L_{17} - L_{18}				1008.37	-----	-450	-100	-179	22	272	-29	-84	-18	0.878	0.122	1.00	Yes	0.562	0.074	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**10.95**
		L_{18} - L_{19}				410.29	-----	-536	395	-852	679	-121	170	-550	208	0.628	0.370	1.00	Yes	0.425	0.235	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**6.83**
		L_{19} - L_{20}				109.93	-463.70	-263	82	-530	259	106	24	145	33	0.168	0.189	0.36	Yes	0.103	0.127	0.23	Yes	0.842	0.117	0.96	Yes	0.835	0.159	1.00	Yes									1.00	**5.36**
	Structure 2	L_0 - L_1				413.09	-----	259	-959	882	-2166	38	133	-100	-348	0.502	0.498	1.00	Yes	0.298	0.320	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**25.34**
		L_1 - L_2				582.95	-----	546	-1320	130	-138	-93	-57	-61	-8	0.708	0.284	1.00	Yes	0.421	0.184	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**9.27**
		L_2 - L_3				1057.44	-----	141	-1069	-72	-99	-16	-26	61	83	0.833	0.163	1.00	Yes	0.546	0.097	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**7.71**
		L_3 - L_4				1417.50	-----	-10	-1294	14	-383	-42	-18	180	78	0.833	0.166	1.00	Yes	0.561	0.102	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**6.11**
		L_4 - L_5				1832.68	-----	-825	-1311	-386	-188	-68	-140	90	223	0.854	0.139	1.00	Yes	0.566	0.082	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**5.94**
		L_5 - L_6				1942.34	-----	-759	-1774	-125	-295	-117	-131	128	-17	0.833	0.165	1.00	Yes	0.559	0.101	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**5.18**
		L_6 - L_7				1941.65	-----	-1698	-1853	-377	-25	-95	198	-175	42	0.822	0.175	1.00	Yes	0.546	0.102	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.65**
		L_7 - L_8				1388.55	-----	-1563	-495	-186	342	-171	-296	-128	7	0.796	0.197	1.00	Yes	0.523	0.116	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**3.74**
		L_8 - L_9				1133.63	-----	-1095	189	-36	579	-176	538	-22	18	0.793	0.198	1.00	Yes	0.534	0.125	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.50**
		L_9 - L_{10}				753.65	-750.65	-1268	139	-58	818	88	-305	32	105	0.673	0.240	0.92	Yes	0.392	0.149	0.55	Yes	0.794	0.149	0.95	Yes	0.788	0.203	1.00	Yes									1.00	**5.42**
		L_{10} - L_{11}				-----	-758.42	-595	438	134	542	-404	187	68	0	-----	-----	-----	-----	-----	-----	-----	-----	0.897	0.097	1.00	Yes	0.891	0.104	1.00	Yes									1.00	**3.97**
		L_{11} - L_{12}				-----	-1022.42	-314	437	-527	1179	133	283	47	9	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.119	0.97	Yes	0.838	0.161	1.00	Yes									1.00	**3.65**
		L_{12} - L_{13}				-----	-1521.92	-402	-70	-386	-608	177	-93	69	110	-----	-----	-----	-----	-----	-----	-----	-----	0.918	0.082	1.00	Yes	0.910	0.060	0.98	Yes									1.00	**3.91**
		L_{13} - L_{14}				-----	-1512.43	-348	1243	-846	2679	-194	-335	-84	-284	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.179	0.95	Yes	0.761	0.234	1.00	Yes									1.00	**2.74**
		L_{14} - L_{15}				-----	-1516.45	1186	-425	2618	-940	-370	-252	-342	-187	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.172	0.95	Yes	0.763	0.229	1.00	Yes									1.00	**2.72**
		L_{15} - L_{16}				-----	-1514.35	-376	55	-849	79	-180	38	-110	41	-----	-----	-----	-----	-----	-----	-----	-----	0.913	0.073	0.99	Yes	0.906	0.084	1.00	Yes									1.00	**3.44**
		L_{16} - L_{17}				-----	-1127.22	689	-89	1379	-182	254	69	115	-90	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.148	0.98	Yes	0.821	0.170	1.00	Yes									1.00	**3.00**
		L_{17} - L_{18}				-----	-835.79	387	-142	709	-283	108	-31	-15	-110	-----	-----	-----	-----	-----	-----	-----	-----	0.884	0.082	0.97	Yes	0.878	0.113	1.00	Yes									1.00	**3.34**
		L_{18} - L_{19}				-----	-653.83	287	-159	643	198	17	129	-8	32	-----	-----	-----	-----	-----	-----	-----	-----	0.877	0.122	1.00	Yes	0.871	0.124	1.00	Yes									1.00	**4.33**
		L_{19} - L_{20}				-----	-652.83	321	-626	539	337	154	-89	40	-23	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.114	0.99	Yes	0.870	0.121	1.00	Yes									1.00	**5.46**
		L_{20} - L_{21}				997.68	-887.73	-261	-1130	788	372	-39	-33	-123	-116	0.796	0.178	0.98	Yes	0.522	0.106	0.63	Yes	0.839	0.130	0.97	Yes	0.833	0.165	1.00	Yes									1.00	**9.33**
		L_{21} - L_{22}				856.04	-435.74	-285	-1998	302	246	-36	-194	-83	-5	0.683	0.312	1.00	Yes	0.457	0.195	0.66	Yes	0.412	0.252	0.67	Yes	0.409	0.292	0.71	Yes									1.00	**5.24**
		L_{22} - L_{23}				855.51	-367.62	-1960	-401	229	274	-248	188	36	-22	0.682	0.313	1.00	Yes	0.456	0.196	0.66	Yes	0.347	0.253	0.61	Yes	0.345	0.286	0.64	Yes									1.00	**5.20**
		L_{23} - L_{24}				990.59	-693.64	-1195	-646	311	554	295	-89	41	121	0.790	0.206	1.00	Yes	0.518	0.124	0.65	Yes	0.655	0.196	0.86	Yes	0.651	0.174	0.83	Yes									1.00	**8.53**
		L_{24} - L_{25}				-----	-650.68	-534	53	334	287	-213	466	74	-40	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.124	1.00	Yes	0.867	0.103	0.98	Yes									1.00	**8.02**
		L_{25} - L_{26}				-----	-672.56	-342	52	148	534	144	-131	36	102	-----	-----	-----	-----	-----	-----	-----	-----	0.902	0.087	0.99	Yes	0.896	0.103	1.00	Yes									1.00	**7.32**
		L_{26} - L_{27}				-----	-846.46	-256	283	-453	656	-54	188	-208	133	-----	-----	-----	-----	-----	-----	-----	-----	0.895	0.069	0.97	Yes	0.889	0.105	1.00	Yes									1.00	**4.02**
		L_{27} - L_{28}				-----	-1157.20	-138	393	-310	1220	192	285	187	109	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.129	0.98	Yes	0.843	0.150	1.00	Yes									1.00	**3.64**
		L_{28} - L_{29}				-----	-1532.73	-25	-251	-120	-673	138	-38	-20	-25	-----	-----	-----	-----	-----	-----	-----	-----	0.924	0.067	1.00	Yes	0.917	0.067	0.99	Yes									1.00	**3.77**
		L_{29} - L_{30}				-----	-1534.05	-355	934	-890	2571	-91	-179	-72	-187	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.158	0.94	Yes	0.772	0.225	1.00	Yes									1.00	**3.03**
		L_{30} - L_{31}				-----	-1478.61	1169	-388	2929	-1033	-49	-44	-203	-85	-----	-----	-----	-----	-----	-----	-----	-----	0.751	0.180	0.94	Yes	0.744	0.256	1.00	Yes									1.00	**3.67**
		L_{31} - L_{32}				-----	-1514.73	-108	-378	-819	-185	15	58	-39	2	-----	-----	-----	-----	-----	-----	-----	-----	0.914	0.085	1.00	Yes	0.906	0.081	0.99	Yes									1.00	**4.95**
		L_{32} - L_{33}				-----	-1001.89	284	-337	1248	-507	145	59	49	-109	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.112	0.94	Yes	0.822	0.170	1.00	Yes									1.00	**4.41**
		L_{33} - L_{34}				426.15	-752.68	226	-616	413	227	169	-54	-32	-87	0.425	0.130	0.56	Yes	0.249	0.082	0.34	Yes	0.890	0.061	0.96	Yes	0.884	0.108	1.00	Yes									1.00	**5.60**
		L_{34} - L_{35}				878.67	-817.67	-206	-637	789	122	-2	347	-28	46	0.784	0.168	0.96	Yes	0.457	0.103	0.57	Yes	0.864	0.126	1.00	Yes	0.859	0.126	0.99	Yes									1.00	**7.44**
		L_{35} - L_{36}				1181.87	-----	129	-1098	479	91	220	-33	89	-64	0.827	0.169	1.00	Yes	0.557	0.105	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**6.08**
		L_{36} - L_{37}				1413.13	-----	-440	-1602	336	67	-92	107	-100	-4	0.810	0.186	1.00	Yes	0.532	0.108	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.83**
		L_{37} - L_{38}				1915.42	-----	-1760	-1880	187	-300	-93	-337	7	-41	0.811	0.186	1.00	Yes	0.539	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**5.18**
		L_{38} - L_{39}				1875.02	-----	-1818	-1010	-200	-152	-115	457	-22	-21	0.805	0.190	1.00	Yes	0.540	0.117	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**5.54**
		L_{39} - L_{40}				1762.61	-----	-1416	-1025	-148	-288	22	-534	-43	-32	0.822	0.170	1.00	Yes	0.544	0.102	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**6.14**
		L_{40} - L_{41}				1337.63	-----	-1418	-88	-249	-62	-593	146	-43	-11	0.786	0.213	1.00	Yes	0.529	0.133	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**6.47**
		L_{41} - L_{42}				1012.61	-----	-1218	220	-105	-85	-112	-191	-18	9	0.798	0.196	1.00	Yes	0.523	0.117	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**8.78**
		L_{42} - L_{43}				585.76	-----	-1008	262	-98	-15	-118	454	17	-3	0.711	0.280	1.00	Yes	0.423	0.177	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**12.64**
		L_{43} - L_{44}				220.09	-475.65	-60	-18	-1573	542	-155	-45	646	189	0.267	0.426	0.70	Yes	0.159	0.271	0.44	Yes	0.684	0.270	0.96	Yes	0.680	0.320	1.00	Yes									1.00	**11.50**
	Structure 3	L_0 - L_1				452.34	-407.51	97	-349	600	-878	-31	-139	34	153	0.692	0.295	0.99	Yes	0.422	0.199	0.63	Yes	0.740	0.150	0.90	Yes	0.734	0.263	1.00	Yes									1.00	**9.90**
		L_1 - L_2				547.84	-----	238	-472	189	-199	-67	33	-25	24	0.838	0.155	1.00	Yes	0.567	0.097	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**6.80**
		L_2 - L_3				1020.21	-----	-45	-387	3	-169	234	254	8	-2	0.888	0.107	1.00	Yes	0.569	0.065	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**9.80**
		L_3 - L_4				1290.38	-----	118	-1178	58	-346	41	6	30	51	0.816	0.177	1.00	Yes	0.529	0.109	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**8.05**
		L_4 - L_5				1780.69	-----	-918	-966	-317	-208	-115	-178	75	107	0.870	0.129	1.00	Yes	0.558	0.075	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**7.90**
		L_5 - L_6				1553.19	-----	-295	-1889	-82	-346	-96	-138	142	78	0.759	0.238	1.00	Yes	0.493	0.143	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.92**
		L_6 - L_7				1292.04	-----	-1589	97	-402	242	-248	215	-185	20	0.760	0.240	1.00	Yes	0.492	0.147	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.31**
		L_7 - L_8				1113.18	-----	-532	-310	-67	150	168	4	-25	44	0.878	0.114	1.00	Yes	0.562	0.068	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**5.52**
		L_8 - L_9				533.33	-----	-886	339	-133	396	-319	371	-3	45	0.691	0.300	1.00	Yes	0.414	0.195	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**5.58**
		L_9 - L_{10}				-----	-542.42	-315	128	-489	637	249	115	164	128	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.090	0.93	Yes	0.826	0.169	1.00	Yes									1.00	**5.76**
		L_{10} - L_{11}				-----	-1145.27	-171	217	-313	439	33	-117	-53	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.932	0.035	0.97	Yes	0.922	0.069	1.00	Yes									1.00	**5.09**
		L_{11} - L_{12}				-----	-1264.06	-40	474	-73	1252	-169	-208	-234	-403	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.187	1.00	Yes	0.801	0.166	0.97	Yes									1.00	**3.17**
		L_{12} - L_{13}				-----	-1242.39	470	-23	1306	-60	-239	-214	-452	-278	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.200	1.00	Yes	0.787	0.173	0.96	Yes									1.00	**3.20**
		L_{13} - L_{14}				-----	-1177.37	129	-21	102	29	-250	-26	-191	80	-----	-----	-----	-----	-----	-----	-----	-----	0.958	0.035	1.00	Yes	0.948	0.020	0.97	Yes									1.00	**4.31**
		L_{14} - L_{15}				-----	-746.91	330	-156	570	169	99	-132	142	-29	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.124	1.00	Yes	0.862	0.126	0.99	Yes									1.00	**3.48**
		L_{15} - L_{16}				-----	-550.84	332	-509	420	197	-84	-109	-4	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.146	1.00	Yes	0.839	0.135	0.98	Yes									1.00	**3.14**
		L_{16} - L_{17}				695.01	-395.83	-699	-421	473	75	23	180	113	-69	0.800	0.198	1.00	Yes	0.475	0.127	0.61	Yes	0.541	0.149	0.69	Yes	0.536	0.169	0.71	Yes									1.00	**5.14**
		L_{17} - L_{18}				709.60	-269.36	-622	-595	205	52	174	-89	-3	18	0.816	0.178	1.00	Yes	0.472	0.107	0.58	Yes	0.368	0.204	0.58	Yes	0.365	0.150	0.52	Yes									1.00	**5.84**
		L_{18} - L_{19}				424.42	-----	-807	85	169	-40	-279	462	67	-173	0.650	0.341	1.00	Yes	0.396	0.226	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**6.30**
		L_{19} - L_{20}				143.32	-----	-223	132	-1485	882	1552	422	1335	363	0.219	0.779	1.00	Yes	0.129	0.467	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**28.14**

Axial AB Operating

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression											
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Verticals	Structure 1	$U_0 - L_0$			-----	-312.83	-38	66	-197	261	-76	-24	54	17	-----	-----	-----	-----	-----	-----	-----	-----	0.699	0.144	0.85	Yes	0.662	0.333	1.00	Yes	1.00	**3.19**
		$U_1 - L_1$			-----	-337.08	53	-42	-201	223	-13	-26	-82	6	-----	-----	-----	-----	-----	-----	-----	-----	0.737	0.102	0.84	Yes	0.713	0.285	1.00	Yes	1.00	**5.22**
		$U_2 - L_2$			158.87	-306.18	136	-152	-219	273	142	42	59	63	0.286	0.389	0.68	Yes	0.157	0.214	0.38	Yes	0.669	0.142	0.82	Yes	0.648	0.348	1.00	Yes	1.00	**7.73**
		$U_3 - L_3$			285.10	-----	224	-262	-255	297	342	102	202	141	0.513	0.478	1.00	Yes	0.282	0.263	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.21**
		$U_4 - L_4$			-----	-354.69	84	-84	194	-195	-345	-116	478	168	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.183	0.97	Yes	0.750	0.249	1.00	Yes	1.00	**5.07**
		$U_5 - L_5$			-----	-422.49	75	-91	241	-266	-59	-54	99	64	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.109	0.88	Yes	0.729	0.270	1.00	Yes	1.00	**3.29**
		$U_6 - L_6$			-----	-503.32	89	-87	230	-239	-87	-32	892	277	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.235	1.00	Yes	0.722	0.209	0.94	Yes	1.00	**3.01**
		$U_7 - L_7$			-----	-431.90	134	-151	305	-332	-168	32	207	70	-----	-----	-----	-----	-----	-----	-----	-----	0.722	0.141	0.87	Yes	0.666	0.327	1.00	Yes	1.00	**2.53**
		$U_8 - L_8$			-----	-1304.63	-14	9	-11	6	-101	4	564	119	-----	-----	-----	-----	-----	-----	-----	-----	0.942	0.055	1.00	Yes	0.904	0.003	0.91	Yes	1.00	**3.99**
		$U_9 - L_9$			-----	-651.71	-175	207	-413	474	-244	-97	-229	-174	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.128	0.91	Yes	0.736	0.263	1.00	Yes	1.00	**3.52**
		$U_{10} - L_{10}$			-----	-775.18	-124	104	-352	331	-745	-405	-570	-466	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.191	1.00	Yes	0.765	0.183	0.95	Yes	1.00	**4.38**
		$U_{11} - L_{11}$			-----	-662.08	-146	197	-386	488	-546	-375	-376	-370	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.170	0.97	Yes	0.771	0.226	1.00	Yes	1.00	**3.97**
		$U_{12} - L_{12}$			-----	-531.37	-126	121	-310	315	-330	-237	-107	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.150	0.92	Yes	0.729	0.269	1.00	Yes	1.00	**3.65**
		$U_{13} - L_{13}$			-----	-365.07	-81	100	-231	258	-173	-56	-1	-6	-----	-----	-----	-----	-----	-----	-----	-----	0.738	0.132	0.88	Yes	0.699	0.294	1.00	Yes	1.00	**2.90**
		$U_{14} - L_{14}$			-----	-368.64	-58	67	-138	159	-270	-88	452	68	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.176	1.00	Yes	0.780	0.203	0.99	Yes	1.00	**5.81**
		$U_{15} - L_{15}$			89.76	-295.33	-64	61	271	-293	-66	-47	285	204	0.161	0.457	0.62	Yes	0.089	0.251	0.35	Yes	0.662	0.219	0.89	Yes	0.625	0.375	1.00	Yes	1.00	**7.23**
		$U_{16} - L_{16}$			-----	-306.25	24	-27	213	-226	-80	-100	1094	-54	-----	-----	-----	-----	-----	-----	-----	-----	0.690	0.305	1.00	Yes	0.648	0.289	0.94	Yes	1.00	**3.77**
		$U_{17} - L_{17}$			-----	-434.11	56	-71	220	-241	-120	-108	199	-146	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.110	0.93	Yes	0.749	0.245	1.00	Yes	1.00	**3.05**
		$U_{18} - L_{18}$			-----	-536.88	137	-144	420	-438	-130	-114	215	-204	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.091	0.88	Yes	0.747	0.248	1.00	Yes	1.00	**3.36**
		$U_{19} - L_{19}$			-----	-634.51	163	-162	558	-535	-111	-41	254	-56	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.116	0.91	Yes	0.739	0.259	1.00	Yes	1.00	**3.86**
		$U_{20} - L_{20}$			-----	-583.99	158	-257	280	-474	25	3	596	78	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.227	1.00	Yes	0.680	0.220	0.90	Yes	1.00	**2.68**
	Structure 2	$U_0 - L_0$			-----	-690.51	-143	187	-485	596	-77	-13	35	6	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.117	0.95	Yes	0.740	0.253	1.00	Yes	1.00	**4.05**
		$U_1 - L_1$			-----	-725.02	-94	102	-478	510	-120	-27	-100	24	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.076	0.91	Yes	0.777	0.216	1.00	Yes	1.00	**4.77**
		$U_2 - L_2$			-----	-590.54	-82	93	-456	473	-95	-45	-9	-1	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.079	0.87	Yes	0.752	0.242	1.00	Yes	1.00	**4.15**
		$U_3 - L_3$			-----	-494.58	-42	49	-223	241	100	-46	-43	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.079	0.93	Yes	0.776	0.219	1.00	Yes	1.00	**3.61**
		$U_4 - L_4$			-----	-344.23	5	4	-205	212	285	86	-85	-9	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.163	0.95	Yes	0.728	0.271	1.00	Yes	1.00	**3.86**
		$U_5 - L_5$			-----	-334.38	76	-71	-195	226	315	189	-48	-35	-----	-----	-----	-----	-----	-----	-----	-----	0.755	0.211	0.97	Yes	0.708	0.289	1.00	Yes	1.00	**5.38**
		$U_6 - L_6$			272.33	-----	174	-193	-302	315	364	254	164	-40	0.490	0.509	1.00	Yes	0.269	0.280	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.29**
		$U_7 - L_7$			-----	-371.81	70	-82	92	-101	-68	-17	445	27	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.158	1.00	Yes	0.787	0.129	0.92	Yes	1.00	**5.48**
		$U_8 - L_8$			-----	-455.84	115	-127	370	-388	-62	-112	126	-57	-----	-----	-----	-----	-----	-----	-----	-----	0.661	0.112	0.78	Yes	0.657	0.339	1.00	Yes	1.00	**4.54**
		$U_9 - L_9$			-----	-693.97	199	-199	546	-581	-105	-119	1372	169	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.200	0.98	Yes	0.744	0.247	1.00	Yes	1.00	**4.67**
		$U_{10} - L_{10}$			-----	-787.74	182	-191	548	-584	-94	-115	337	-171	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.101	0.88	Yes	0.737	0.258	1.00	Yes	1.00	**4.66**
		$U_{11} - L_{11}$			-----	-833.62	185	-184	468	-495	-160	-43	350	5	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.125	0.97	Yes	0.779	0.218	1.00	Yes	1.00	**3.84**
		$U_{12} - L_{12}$			-----	-895.26	146	-117	505	-488	-126	30	208	202	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.101	0.97	Yes	0.776	0.217	1.00	Yes	1.00	**3.94**
		$U_{13} - L_{13}$			-----	-736.02	212	-216	568	-550	-147	6	345	85	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.179	1.00	Yes	0.710	0.272	0.99	Yes	1.00	**3.46**
		$U_{14} - L_{14}$			-----	-1254.21	95	-92	179	-177	-41	224	475	298	-----	-----	-----	-----	-----	-----	-----	-----	0.917	0.077	1.00	Yes	0.832	0.032	0.87	Yes	1.00	**3.95**
		$U_{15} - L_{15}$			-----	-698.93	-76	89	-668	663	-314	34	-33	60	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.163	0.95	Yes	0.674	0.320	1.00	Yes	1.00	**5.57**
		$U_{16} - L_{16}$			-----	-701.65	-61	33	-464	414	-820	-248	-602	-241	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.183	1.00	Yes	0.752	0.197	0.95	Yes	1.00	**3.99**
		$U_{17} - L_{17}$			-----	-637.45	-118	108	-540	530	-481	-305	-298	-302	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.155	0.95	Yes	0.742	0.251	1.00	Yes	1.00	**3.55**
		$U_{18} - L_{18}$			-----	-604.58	-112	100	-411	436	-273	-245	68	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.118	0.93	Yes	0.770	0.223	1.00	Yes	1.00	**3.20**
		$U_{19} - L_{19}$			-----	-480.68	-73	71	-287	291	-245	-149	-123	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.723	0.121	0.85	Yes	0.718	0.280	1.00	Yes	1.00	**3.94**
		$U_{20} - L_{20}$			-----	-385.83	-42	40	-216	228	-236	-134	-20	-100	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.144	0.94	Yes	0.739	0.261	1.00	Yes	1.00	**4.07**
		$U_{21} - L_{21}$			-----	-315.08	-30	32	-239	256	-219	-97	43	3	-----	-----	-----	-----	-----	-----	-----	-----	0.712	0.158	0.87	Yes	0.667	0.327	1.00	Yes	1.00	**4.57**
		$U_{22} - L_{22}$			-----	-379.74	4	-5	-14	20	-211	-84	501	74	-----	-----	-----	-----	-----	-----	-----	-----	0.855	0.139	1.00	Yes	0.803	0.026	0.83	Yes	1.00	**5.75**
		$U_{23} - L_{23}$			-----	-305.15	20	-25	262	-277	464	57	236	160	-----	-----	-----	-----	-----	-----	-----	-----	0.689	0.203	0.90	Yes	0.646	0.353	1.00	Yes	1.00	**5.71**
		$U_{24} - L_{24}$			-----	-340.29	43	-48	198	-215	-70	-8	1002	95	-----	-----	-----	-----	-----	-----	-----	-----	0.698	0.300	1.00	Yes	0.652	0.246	0.90	Yes	1.00	**3.44**
		$U_{25} - L_{25}$			-----	-469.67	53	-49	309	-305	-92	10	383	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.120	0.83	Yes	0.701	0.297	1.00	Yes	1.00	**3.74**
		$U_{26} - L_{26}$			-----	-594.45	99	-94	430	-467	-123	0	448	22	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.122	0.92	Yes	0.757	0.239	1.00	Yes	1.00	**3.35**
		$U_{27} - L_{27}$			-----	-631.77	96	-92	563	-566	-159	22	251	157	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.096	0.88	Yes	0.735	0.263	1.00	Yes	1.00	**3.63**
		$U_{28} - L_{28}$			-----	-683.96	55	-34	477	-455	-230	74	1117	158	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.207	1.00	Yes	0.733	0.202	0.94	Yes	1.00	**3.54**
		$U_{29} - L_{29}$			-----	-696.05	113	-136	665	-654	-214	33	486	104	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.219	1.00	Yes	0.671	0.318	0.99	Yes	1.00	**4.70**
		$U_{30} - L_{30}$			-----	-1248.02	-18	7	55	-88	-82	118	495	213	-----	-----	-----	-----	-----	-----	-----	-----	0.913	0.087	1.00	Yes	0.828	0.016	0.85	Yes	1.00	**4.38**
		$U_{31} - L_{31}$			-----	-742.89	-97	96	-582	578	-313	-19	-48	35	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.163	1.00	Yes	0.716	0.279	1.00	Yes	1.00	**4.90**
		$U_{32} - L_{32}$			-----	-836.91	-79	53	-433	392	-684	-263	-475	-235	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.188	1.00	Yes	0.725	0.186	0.92	Yes	1.00	**4.30**
		$U_{33} - L_{33}$			-----	-845.06	-120	105	-415	432	-435	-347	-28	-273	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.146	1.00	Yes	0.790	0.191	0.99	Yes	1.00	**4.29**
		$U_{34} - L_{34}$			-----	-805.99	-125	111	-504	540	-320	-333	-219	-388	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.126	0.93	Yes	0.754	0.238	1.00	Yes	1.00	**5.64**
		$U_{35} - L_{35}$			-----	-708.65	-148	144	-518	557	-121	-95	-31	-102	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.071	0.86	Yes	0.759	0.236	1.00	Yes	1.00	**5.24**
		$U_{36} - L_{36}$			-----	-474.11	-82	92	-340	358	89	71	105	35	-----	-----	-----	-----	-----	-----	-----	-----	0.687	0.102	0.79	Yes	0.683	0.313	1.00	Yes	1.00	**4.31**
		$U_{37} - L_{37}$			-----	-366.38	-61	72	-113	135	-103	-20	371	61	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.166	1.00	Yes	0.775	0.172	0.95	Yes	1.00	**5.40**
		$U_{38} - L_{38}$			301.87	-----	-231	255	259	-257	219	119	434	376	0.543	0.457	1.00	Yes	0.299	0.251	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**14.04**
		$U_{39} - L_{39}$			93.92	-278.17	-82	80	158	-184	61	0	1245	51	0.169	0.596	0.77	Yes	0.093	0.328	0.43	Yes	0.628	0.365	1.00	Yes	0.589	0.236	0.83	Yes	1.00	**4.98**
		$U_{40} - L_{40}$			-----	-339.14	-30	23	214	-217	14	-22	304	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.122	0.90	Yes	0.718	0.278	1.00	Yes	1.00	**4.01**
		$U_{41} - L_{41}$			-----	-486.94	12	-16	239	-253	10	-20	205	-121	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.086	0.92	Yes	0.764	0.231	1.00	Yes	1.00	**3.72**
		$U_{42} - L_{42}$			-----	-588.41	34	-43	473	-488	12	-27	271	-168	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.077	0.87	Yes	0.750	0.250	1.00	Yes	1.00	**4.03**
		$U_{43} - L_{43}$			-----	-696.79	53	-67	573	-571	-58	-57	331	90	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.105	0.91	Yes	0.747	0.243	1.00	Yes	1.00	**4.39**
		$U_{44} - L_{44}$			-----	-637.93	109	-121	283	-456	-162	-27	939	159	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.232	1.00	Yes	0.684	0.194	0.88	Yes	1.00	**3.33**
	Structure 3	$U_0 - L_0$			-----	-636.30	-134	180	-484	556	-59	-8	231	30	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.153	1.00	Yes	0.741	0.258	1.00	Yes	1.00	**4.57**
		$U_1 - L_1$			-----	-669.64	-104	116	-450	475	-119	-3	-19	129	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.081	0.92	Yes	0.779	0.220	1.00	Yes	1.00	**5.24**
		$U_2 - L_2$			-----	-541.22	-102	108	-403	421	-142	-43	20	25	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.088	0.89	Yes	0.753	0.239	1.00	Yes	1.00	**4.33**
		$U_3 - L_3$			-----	-448.99	-41	54	-197	219	50	-62	1	-21	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.083	0.93	Yes	0.775	0.222	1.00	Yes	1.00	**3.72**
		$U_4 - L_4$			-----	-330.09	-11	16	-219	232	232	50	-41	14	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.147	0.90	Yes	0.698	0.297	1.00	Yes	1.00	**4.47**
		$U_5 - L_5$			-----	-307.74	47	-45	-247	268	230	155	-4	19	-----	-----	-----	-----	-----	-----	-----	-----	0.690	0.185	0.88	Yes	0.651	0.342	1.00	Yes	1.00	**5.85**
		$U_6 - L_6$			-----	-369.32	43	-49	105	-112	-9	5	478	66	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.174	1.00	Yes	0.781	0.143	0.93	Yes	1.00	**5.70**
		$U_7 - L_7$			-----	-358.91	69	-82	246	-266	-8	-83	86	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.726	0.107	0.84	Yes	0.688	0.304	1.00	Yes	1.00	**3.54**
		$U_8 - L_8$			-----	-511.19	111	-108	307	-317	-61	-120	1118	217	-----	-----	-----	-----	-----	-----	-----	-----	0.738	0.256	1.00	Yes	0.701	0.271	0.98	Yes	1.00	**3.68**
		$U_9 - L_9$			-----	-651.81	130	-169	416	-513	-180	-136	239	-72	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.120	0.91	Yes	0.759	0.238	1.00	Yes	1.00	**4.03**
		$U_{10} - L_{10}$			-----	-798.49	118	-115	391	-402	-199	-93	384	85	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.128	0.96	Yes	0.788	0.208	1.00	Yes	1.00	**4.45**
		$U_{11} - L_{11}$			-----	-642.28	168	-193	428	-487	-111	-11	360	134	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.146	0.92	Yes	0.725	0.271	1.00	Yes	1.00	**3.24**
		$U_{12} - L_{12}$			-----	-1245.44	69	-97	100	-168	-30	64	823	328	-----	-----	-----	-----	-----	-----	-----	-----	0.899	0.101	1.00	Yes	0.863	0.031	0.90	Yes	1.00	**4.16**
		$U_{13} - L_{13}$			-----	-444.31	-70	81	-292	315	-209	-1	-27	45	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.144	0.89	Yes	0.685	0.310	1.00	Yes	1.00	**3.85**
		$U_{14} - L_{14}$			-----	-521.48	-47	28	-223	213	-680	-310	-497	-262	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.209	1.00	Yes	0.748	0.195	0.95	Yes	1.00	**4.14**
		$U_{15} - L_{15}$			-----	-435.03	-48	52	-226	237	-243	-173	-311	-268	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.154	0.95	Yes	0.751	0.240	1.00	Yes	1.00	**3.68**
		$U_{16} - L_{16}$			-----	-351.30	-69	68	-191	197	-408	-255	173	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.195	0.97	Yes	0.743	0.252	1.00	Yes	1.00	**5.12**
		$U_{17} - L_{17}$			311.30	-----	-270	312	205	-224	-25	100	-46	141	0.560	0.440	1.00	Yes	0.308	0.242	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.26**
		$U_{18} - L_{18}$			142.91	-250.03	-131	147	153	-198	-149	22	1614	373	0.257	0.721	0.98	Yes	0.141	0.396	0.54	Yes	0.546	0.453	1.00	Yes	0.529	0.253	0.79	Yes	1.00	**5.77**
		$U_{19} - L_{19}$			84.72	-314.16	-87	72	262	-244	-91	20	255	52	0.152	0.408	0.57	Yes	0.084	0.224	0.31	Yes	0.686	0.144	0.84	Yes	0.665	0.334	1.00	Yes	1.00	**4.60**
		$U_{20} - L_{20}$			-----	-309.28	13	-15	61	-170	-74	-24	677	217	-----	-----	-----	-----	-----	-----	-----	-----	0.691	0.306	1.00	Yes	0.654	0.217	0.88	Yes	1.00	**2.67**

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Diagonals	Structure 1	$U_0 - L_1$			625.53	-----	-125	72	-4	-11	-36	-93	18	48	0.821	0.169	1.00	Yes	0.496	0.093	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.88**
		$U_1 - L_2$			463.67	-169.47	-91	9	32	-25	-164	-120	35	20	0.834	0.163	1.00	Yes	0.459	0.090	0.55	Yes	0.389	0.150	0.54	Yes	0.359	0.116	0.48	Yes	1.00	**6.42**
		$U_2 - L_3$			-----	-336.31	-139	1	70	-35	-115	-126	76	56	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.224	1.00	Yes	0.712	0.178	0.89	Yes	1.00	**9.56**
		$U_3 - L_4$			-----	-323.67	-69	-112	11	-58	-153	-373	118	-90	-----	-----	-----	-----	-----	-----	-----	-----	0.740	0.257	1.00	Yes	0.685	0.143	0.83	Yes	1.00	**6.93**
		$U_4 - L_4$			573.79	-----	-86	41	-19	24	-306	-267	-38	-78	0.841	0.158	1.00	Yes	0.463	0.087	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.75**
		$U_5 - L_5$			621.91	-----	-151	256	-49	100	-634	-182	32	-33	0.735	0.261	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
		$U_5 - L_6$			655.92	-----	-272	274	-80	107	-106	-214	348	185	0.775	0.220	1.00	Yes	0.427	0.121	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.54**
		$U_6 - L_7$			640.30	-----	-96	312	7	141	-271	-163	341	226	0.757	0.240	1.00	Yes	0.416	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.78**
		$U_8 - L_8$			913.89	-----	27	421	20	144	582	342	346	101	0.731	0.262	1.00	Yes	0.453	0.147	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.22**
		$U_9 - L_{10}$			969.73	-----	-263	305	-76	88	629	551	173	137	0.775	0.216	1.00	Yes	0.480	0.122	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.12**
		$U_{10} - L_{11}$			968.48	-----	-184	254	-60	100	401	463	-16	168	0.818	0.178	1.00	Yes	0.506	0.101	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.67**
		$U_{11} - L_{12}$			840.15	-----	-230	152	-72	47	354	364	-9	138	0.831	0.161	1.00	Yes	0.457	0.089	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.33**
		$U_{12} - L_{13}$			644.65	-----	-201	172	-79	65	162	72	-34	-17	0.786	0.208	1.00	Yes	0.494	0.116	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_{13} - L_{14}$			457.47	-----	-106	30	-32	11	26	-60	-65	-112	0.823	0.168	1.00	Yes	0.453	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.63**
		$U_{15} - L_{14}$			-----	-214.38	-124	-90	40	-55	-879	-483	2	-20	-----	-----	-----	-----	-----	-----	-----	-----	0.502	0.493	1.00	Yes	0.454	0.159	0.62	Yes	1.00	**9.32**
		$U_{16} - L_{15}$			298.37	-----	-119	72	-11	-6	-1059	-212	-83	-81	0.537	0.459	1.00	Yes	0.295	0.252	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.18**
		$U_{17} - L_{16}$			490.27	-----	-138	89	-32	12	-576	-535	-105	-126	0.719	0.274	1.00	Yes	0.395	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.08**
		$U_{18} - L_{17}$			583.47	-----	-302	244	-109	73	-742	-523	-106	-113	0.690	0.306	1.00	Yes	0.379	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		$U_{19} - L_{18}$			642.95	-----	-339	249	-130	85	-759	-534	-61	-101	0.696	0.298	1.00	Yes	0.383	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.21**
		$U_{20} - L_{19}$			672.99	-----	-168	224	-93	90	-896	-377	-90	-35	0.729	0.262	1.00	Yes	0.401	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.52**
	Structure 2	$U_0 - L_1$			796.46	-----	-422	389	-96	81	-22	-70	-54	-30	0.788	0.206	1.00	Yes	0.433	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.98**
		$U_1 - L_2$			799.77	-----	-393	327	-72	51	-128	-43	-81	-7	0.791	0.202	1.00	Yes	0.435	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.06**
		$U_2 - L_3$			658.01	-----	-348	277	-62	46	-21	-17	1	111	0.778	0.217	1.00	Yes	0.428	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.28**
		$U_3 - L_4$			595.41	-----	-192	138	-24	4	-38	-46	135	76	0.794	0.203	1.00	Yes	0.437	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.16**
		$U_4 - L_5$			428.97	-----	-149	102	17	-25	-111	-12	105	-95	0.772	0.222	1.00	Yes	0.424	0.122	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.95**
		$U_5 - L_6$			428.28	-221.47	-140	61	67	-65	-71	4	12	-174	0.770	0.229	1.00	Yes	0.424	0.126	0.55	Yes	0.523	0.181	0.71	Yes	0.469	0.178	0.65	Yes	1.00	**7.13**
		$U_6 - L_7$			-----	-387.67	-113	-65	31	-110	-30	-197	127	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.164	1.00	Yes	0.743	0.130	0.88	Yes	1.00	**8.35**
		$U_8 - L_7$			524.15	-----	-227	70	-58	46	-630	-497	-142	-214	0.668	0.331	1.00	Yes	0.421	0.189	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.72**
		$U_8 - L_8$			608.62	-----	-309	195	-126	91	-1068	-455	-158	-170	0.659	0.334	1.00	Yes	0.363	0.184	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.39**
		$U_{10} - L_9$			758.06	-----	-320	202	-111	87	-614	-667	-110	-140	0.750	0.248	1.00	Yes	0.412	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.73**
		$U_{11} - L_{10}$			825.13	-----	-336	266	-105	135	-716	-542	142	14	0.752	0.241	1.00	Yes	0.413	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		$U_{12} - L_{11}$			875.06	-----	-343	365	-114	157	-335	-262	230	96	0.797	0.201	1.00	Yes	0.438	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.48**
		$U_{13} - L_{12}$			743.82	-----	-428	380	-143	146	-418	-240	375	157	0.736	0.261	1.00	Yes	0.405	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.00**
		$U_{14} - L_{13}$			727.31	-----	-267	419	-1	148	-573	-189	555	209	0.720	0.280	1.00	Yes	0.396	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		$U_{14} - L_{15}$			585.22	-----	-112	394	60	38	467	44	245	-62	0.692	0.308	1.00	Yes	0.381	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.69**
		$U_{15} - L_{16}$			629.34	-----	-374	358	-30	38	209	131	-66	-19	0.744	0.250	1.00	Yes	0.409	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.48**
		$U_{16} - L_{17}$			703.46	-----	-304	372	-38	80	40	242	-218	101	0.762	0.230	1.00	Yes	0.419	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.63**
		$U_{17} - L_{18}$			649.01	-----	-283	297	-48	80	184	327	-47	176	0.767	0.228	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		$U_{18} - L_{19}$			655.95	-----	-278	267	-23	78	321	253	86	114	0.776	0.216	1.00	Yes	0.427	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.58**
		$U_{19} - L_{20}$			599.70	-----	-208	174	-10	40	236	214	16	87	0.765	0.234	1.00	Yes	0.421	0.131	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.81**
		$U_{20} - L_{21}$			437.11	-----	-132	112	-11	24	127	49	-24	31	0.786	0.206	1.00	Yes	0.432	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.48**
		$U_{21} - L_{22}$			418.98	-----	-159	4	7	9	119	-12	-52	117	0.754	0.237	1.00	Yes	0.414	0.130	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.53**
		$U_{23} - L_{22}$			319.60	-----	-147	-30	-21	-55	-790	-445	-467	-143	0.575	0.417	1.00	Yes	0.316	0.229	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.60**
		$U_{24} - L_{23}$			334.73	-----	-110	85	-26	19	-884	-169	-286	-169	0.602	0.396	1.00	Yes	0.331	0.218	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.86**
		$U_{25} - L_{24}$			547.65	-----	-192	161	-17	65	-604	-595	192	90	0.698	0.295	1.00	Yes	0.384	0.169	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.16**
		$U_{26} - L_{25}$			616.77	-----	-270	252	-16	83	-623	-423	300	155	0.729	0.266	1.00	Yes	0.401	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.14**
		$U_{27} - L_{26}$			651.72	-----	-281	292	-39	81	-326	-242	261	119	0.771	0.224	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.41**
		$U_{28} - L_{27}$			647.45	-----	-298	353	-39	85	-660	-105	407	238	0.701	0.289	1.00	Yes	0.386	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		$U_{29} - L_{28}$			623.18	-----	-361	348	-51	61	-154	-253	288	149	0.737	0.257	1.00	Yes	0.405	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_{30} - L_{29}$			575.49	-----	-141	363	51	73	-138	-59	600	235	0.680	0.314	1.00	Yes	0.374	0.173	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.46**
		$U_{30} - L_{31}$			706.07	-----	-171	482	34	59	516	78	283	-21	0.699	0.301	1.00	Yes	0.384	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.76**
		$U_{31} - L_{32}$			758.81	-----	-439	405	-60	69	251	149	-46	16	0.751	0.241	1.00	Yes	0.413	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.54**
		$U_{32} - L_{33}$			871.13	-----	-335	362	-55	97	97	327	-183	133	0.794	0.198	1.00	Yes	0.436	0.109	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		$U_{33} - L_{34}$			857.53	-----	-355	284	-54	97	270	430	33	243	0.781	0.209	1.00	Yes	0.430	0.115	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.96**
		$U_{34} - L_{35}$			808.91	-----	-328	227	-69	78	265	205	105	92	0.800	0.192	1.00	Yes	0.440	0.105	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.97**
		$U_{35} - L_{36}$			730.81	-----	-352	242	-90	81	125	45	18	1	0.792	0.200	1.00	Yes	0.435	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.73**
		$U_{36} - L_{37}$			596.31	-----	-238	108	-48	44	-17	-72	-53	-106	0.760	0.234	1.00	Yes	0.479	0.130	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.70**
		$U_{38} - L_{37}$			-----	-364.86	8	-23	37	-92	-151	-128	-359	-92	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.208	1.00	Yes	0.699	0.104	0.81	Yes	1.00	**6.49**
		$U_{39} - L_{38}$			247.82	-193.70	-94	23	59	-56	-1408	-249	-35	-19	0.446	0.527	0.98	Yes	0.245	0.290	0.54	Yes	0.461	0.531	1.00	Yes	0.410	0.120	0.53	Yes	1.00	**6.14**
		$U_{40} - L_{39}$			368.56	-----	-136	87	25	-28	-496	-544	-37	-36	0.663	0.332	1.00	Yes	0.365	0.183	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.81**
		$U_{41} - L_{40}$			529.05	-----	-170	120	-8	-6	-637	-411	-71	-60	0.705	0.289	1.00	Yes	0.388	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_{42} - L_{41}$			586.45	-----	-311	251	-34	19	-685	-478	-47	-46	0.693	0.300	1.00	Yes	0.381	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.75**
		$U_{43} - L_{42}$			715.18	-----	-384	302	-50	31	-734	-540	12	-31	0.708	0.288	1.00	Yes	0.389	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.02**
		$U_{44} - L_{43}$			728.86	-----	-198	285	-88	70	-958	-304	82	-18	0.721	0.275	1.00	Yes	0.397	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.21**
	Structure 3	$U_0 - L_1$			700.95	-----	-422	338	-108	89	28	-133	-64	-53	0.759	0.238	1.00	Yes	0.418	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.16**
		$U_1 - L_2$			732.63	-----	-345	271	-92	60	-176	-75	-127	-45	0.794	0.205	1.00	Yes	0.436	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.49**
		$U_2 - L_3$			664.07	-----	-352	270	-88	54	-16	-4	-47	80	0.785	0.214	1.00	Yes	0.432	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.11**
		$U_3 - L_4$			557.25	-----	-161	111	-24	5	2	-30	77	49	0.817	0.181	1.00	Yes	0.449	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.52**
		$U_4 - L_5$			429.09	-----	-148	102	-2	-13	-92	-53	52	-106	0.772	0.219	1.00	Yes	0.424	0.121	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.65**
		$U_5 - L_6$			402.07	-208.19	-161	-61	39	-54	-148	-164	-37	-216	0.723	0.268	1.00	Yes	0.398	0.148	0.55	Yes	0.488	0.313	0.81	Yes	0.441	0.206	0.65	Yes	1.00	**9.70**
		$U_7 - L_6$			409.93	-----	-99	14	-26	7	-442	-365	-151	-198	0.737	0.255	1.00	Yes	0.406	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.09**
		$U_8 - L_7$			534.51	-----	-181	141	-70	49	-948	-373	-198	-184	0.652	0.343	1.00	Yes	0.410	0.198	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.45**
		$U_8 - L_8$			787.84	-----	-232	126	-70	39	-684	-715	-62	-136	0.779	0.215	1.00	Yes	0.429	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.03**
		$U_{10} - L_9$			953.50	-----	-205	232	-62	77	-631	-544	39	-58	0.805	0.190	1.00	Yes	0.499	0.108	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.57**
		$U_{11} - L_{10}$			999.14	-----	-283	308	-82	88	-480	-357	217	84	0.799	0.198	1.00	Yes	0.495	0.112	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		$U_{12} - L_{11}$			950.76	-----	-92	365	-4	129	-592	-343	211	140	0.760	0.238	1.00	Yes	0.471	0.134	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.86**
		$U_{12} - L_{13}$			624.48	-----	-19	367	38	84	260	10	199	-27	0.738	0.256	1.00	Yes	0.406	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.62**
		$U_{13} - L_{14}$			671.10	-----	-275	304	-18	67	172	154	-25	22	0.793	0.205	1.00	Yes	0.436	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.39**
		$U_{14} - L_{15}$			672.02	-----	-134	275	-22	67	108	254	-59	75	0.795	0.203	1.00	Yes	0.437	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.49**
		$U_{15} - L_{16}$			581.53	-----	-82	55	-10	26	145	241	6	95	0.853	0.139	1.00	Yes	0.469	0.077	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.16**
		$U_{17} - L_{16}$			-----	-333.42	-60	-105	16	-48	-405	-180	-109	109	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.230	1.00	Yes	0.705	0.134	0.84	Yes	1.00	**7.23**
		$U_{18} - L_{17}$			-----	-256.80	-80	-12	55	-29	-1071	-214	273	181	-----	-----	-----	-----	-----	-----	-----	-----	0.591	0.399	1.00	Yes	0.543	0.102	0.65	Yes	1.00	**5.96**
		$U_{19} - L_{18}$			383.75	-184.41	-103	21	36	-24	-616	-561	250	195	0.690	0.310	1.00	Yes	0.380	0.170	0.55	Yes	0.423	0.319	0.75	Yes	0.390	0.131	0.53	Yes	1.00	**4.88**
		$U_{20} - L_{19}$			582.30	-----	26	23	-15	-11	-802	-469	204	209	0.764	0.232	1.00	Yes	0.461	0.128	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.16**

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
Center Truss - Upper Chord	Structure 1	U_0 - U_1	-----	-575.40	10	168	-357	-567	7	-71	299	-35	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.212	1	Yes	0.776	0.135	0.92	Yes	1.00	**10.06**
		U_1 - U_2	-----	-576.30	-40	174	-210	-631	-49	42	258	-166	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.208	1	Yes	0.777	0.150	0.93	Yes	1.00	**6.12**
		U_2 - U_3	259.12	-669.70	-48	369	-371	-259	-50	-89	298	-238	0.297	0.138	0.44	Yes	0.200	0.091	0.30	Yes	0.911	0.087	1	Yes	0.903	0.088	1.00	Yes	1.00	**6.10**
		U_3 - U_4	371.59	-553.75	124	298	-323	-766	-117	-97	20	-171	0.426	0.211	0.64	Yes	0.292	0.145	0.44	Yes	0.753	0.246	1	Yes	0.747	0.182	0.93	Yes	1.00	**5.36**
		U_4 - U_5	382.80	-561.50	139	296	-1005	-107	-216	-20	-87	-96	0.439	0.276	0.72	Yes	0.301	0.189	0.50	Yes	0.764	0.230	1	Yes	0.757	0.239	1.00	Yes	1.00	**5.48**
		U_5 - U_6	681.76	-----	277	455	-345	142	-294	19	-13	-649	0.781	0.218	1.00	Yes	0.527	0.144	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.10**
		U_6 - U_7	888.44	-----	344	206	-456	9	-359	148	-104	-102	0.850	0.146	1.00	Yes	0.594	0.101	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.99**
		U_7 - U_8	1000.32	-----	-418	1765	-62	684	-327	308	-242	173	0.693	0.301	1.00	Yes	0.483	0.205	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.49**
		U_8 - U_9	859.50	-----	1504	-497	617	-162	67	343	31	184	0.704	0.294	1.00	Yes	0.482	0.200	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.33**
		U_9 - U_{10}	739.39	-----	237	292	180	-490	43	440	389	505	0.802	0.191	1.00	Yes	0.543	0.128	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.11**
		U_{10} - U_{11}	-----	-619.32	328	-17	167	-898	218	121	414	139	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.194	1	Yes	0.790	0.201	1.00	Yes	1.00	**7.91**
		U_{11} - U_{12}	-----	-919.90	224	-100	26	-684	159	104	333	13	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.126	1	Yes	0.863	0.113	0.98	Yes	1.00	**5.60**
		U_{12} - U_{13}	-----	-1332.09	-3	-153	-169	-474	220	-27	363	-256	-----	-----	-----	-----	-----	-----	-----	-----	0.901	0.095	1	Yes	0.890	0.065	0.96	Yes	1.00	**5.64**
		U_{13} - U_{14}	-----	-1359.20	-111	-356	-433	-1674	151	60	178	-5	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.211	1	Yes	0.779	0.185	0.97	Yes	1.00	**4.28**
		U_{14} - U_{15}	-----	-1353.13	-253	-187	-1571	-583	182	-56	266	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.215	1	Yes	0.776	0.173	0.95	Yes	1.00	**4.24**
		U_{15} - U_{16}	-----	-1462.37	-60	-413	-449	-989	18	-63	185	-557	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.147	1	Yes	0.838	0.109	0.95	Yes	1.00	**5.02**
		U_{16} - U_{17}	-----	-1419.86	-314	-185	-1271	-458	47	-171	177	-237	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.171	1	Yes	0.814	0.140	0.96	Yes	1.00	**5.38**
		U_{17} - U_{18}	-----	-1080.20	-160	-107	-622	17	-154	-212	-141	-419	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.140	1	Yes	0.845	0.101	0.95	Yes	1.00	**5.26**
		U_{18} - U_{19}	-----	-726.64	-191	-30	-654	39	-173	-161	-218	-313	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.171	1	Yes	0.818	0.132	0.95	Yes	1.00	**5.27**
		U_{19} - U_{20}	-----	-654.58	-153	-55	-1304	343	-102	10	120	-504	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.256	1	Yes	0.736	0.262	1.00	Yes	1.00	**13.30**
	Structure 2	U_0 - U_1	-----	-651.81	161	-50	-21	-1310	105	191	300	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.198	0.98	Yes	0.770	0.222	1.00	Yes	1.00	**9.72**
		U_1 - U_2	-----	-810.14	-108	-102	-91	-842	346	684	284	-118	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.204	1	Yes	0.782	0.128	0.91	Yes	1.00	**4.95**
		U_2 - U_3	-----	-1180.27	-85	-165	-219	-1116	633	-10	149	20	-----	-----	-----	-----	-----	-----	-----	-----	0.843	0.152	1	Yes	0.838	0.114	0.96	Yes	1.00	**5.15**
		U_3 - U_4	-----	-1446.10	-341	-234	-912	-1128	97	-346	434	343	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.165	1	Yes	0.823	0.101	0.93	Yes	1.00	**4.86**
		U_4 - U_5	-----	-1548.78	-335	-261	-1005	-1461	-110	-391	582	32	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.190	1	Yes	0.795	0.121	0.92	Yes	1.00	**4.64**
		U_5 - U_6	-----	-1635.32	-331	111	-1282	-563	-155	-329	584	-2	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.153	1	Yes	0.840	0.106	0.95	Yes	1.00	**4.82**
		U_6 - U_7	-----	-1372.42	-215	-31	-856	-1495	-113	-277	-5	-405	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.204	1	Yes	0.781	0.133	0.92	Yes	1.00	**3.95**
		U_7 - U_8	-----	-1377.17	-124	-153	-1580	-744	-207	-232	-145	-338	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.203	1	Yes	0.784	0.141	0.93	Yes	1.00	**3.99**
		U_8 - U_9	-----	-1265.50	-234	174	-792	-567	-273	-196	29	-525	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.131	1	Yes	0.858	0.084	0.95	Yes	1.00	**4.44**
		U_9 - U_{10}	-----	-948.43	-31	348	-1347	-117	-318	-140	138	-131	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.173	1	Yes	0.818	0.164	0.99	Yes	1.00	**4.45**
		U_{10} - U_{11}	732.84	-838.28	248	509	-981	-119	-202	-38	-221	-385	0.619	0.185	0.81	Yes	0.421	0.121	0.55	Yes	0.838	0.159	1	Yes	0.833	0.138	0.98	Yes	1.00	**7.22**
		U_{11} - U_{12}	914.69	-----	250	567	-1033	372	-382	-156	-304	-624	0.773	0.222	1.00	Yes	0.519	0.148	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.74**
		U_{12} - U_{13}	1210.98	-----	151	-123	-528	-321	-1151	-592	-822	-734	0.818	0.176	1.00	Yes	0.583	0.123	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.09**
		U_{13} - U_{14}	1253.95	-----	-914	3657	-339	1646	-637	43	-457	-25	0.617	0.382	1.00	Yes	0.437	0.251	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.24**
		U_{14} - U_{15}	1295.11	-----	3481	-524	1551	-121	-139	456	-120	241	0.637	0.353	1.00	Yes	0.451	0.231	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.08**
		U_{15} - U_{16}	1469.89	-----	-90	23	-33	93	492	1180	180	511	0.889	0.110	1.00	Yes	0.632	0.078	0.72	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.74**
		U_{16} - U_{17}	1143.74	-----	627	456	442	-678	184	292	639	410	0.843	0.152	1.00	Yes	0.561	0.100	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.25**
		U_{17} - U_{18}	835.41	-----	472	423	268	-647	-26	166	325	300	0.839	0.158	1.00	Yes	0.558	0.104	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.72**
		U_{18} - U_{19}	792.14	-----	569	473	160	-818	-108	69	393	119	0.795	0.196	1.00	Yes	0.522	0.126	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.64**
		U_{19} - U_{20}	553.65	-757.94	422	306	-274	-713	-98	168	384	245	0.519	0.166	0.69	Yes	0.344	0.109	0.46	Yes	0.842	0.154	1	Yes	0.836	0.114	0.96	Yes	1.00	**6.88**
		U_{20} - U_{21}	466.19	-975.43	241	270	-189	-539	11	34	274	-329	0.362	0.114	0.48	Yes	0.253	0.075	0.33	Yes	0.897	0.100	1	Yes	0.890	0.078	0.97	Yes	1.00	**6.58**
		U_{21} - U_{22}	-----	-833.39	99	110	-516	-1356	-34	48	75	-98	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.231	1	Yes	0.761	0.196	0.96	Yes	1.00	**4.61**
		U_{22} - U_{23}	-----	-825.96	125	94	-1351	-519	-43	-23	89	-131	-----	-----	-----	-----	-----	-----	-----	-----	0.759	0.236	1	Yes	0.754	0.196	0.95	Yes	1.00	**4.57**
		U_{23} - U_{24}	-----	-906.16	247	166	-470	-598	-212	-2	24	-556	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.162	1	Yes	0.827	0.087	0.92	Yes	1.00	**5.79**
		U_{24} - U_{25}	430.50	-757.58	233	319	-880	-211	-207	43	89	-146	0.404	0.169	0.58	Yes	0.268	0.111	0.38	Yes	0.841	0.154	1	Yes	0.836	0.141	0.98	Yes	1.00	**5.87**
		U_{25} - U_{26}	747.89	-687.14	454	518	-876	338	-264	145	-166	-263	0.751	0.187	0.94	Yes	0.493	0.119	0.62	Yes	0.816	0.179	1	Yes	0.811	0.149	0.97	Yes	1.00	**8.87**
		U_{26} - U_{27}	835.10	-----	428	446	-729	336	-214	118	-177	-254	0.838	0.161	1.00	Yes	0.558	0.107	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.76**
		U_{27} - U_{28}	1016.92	-----	-337	1158	-685	528	-611	-921	-329	-508	0.749	0.242	1.00	Yes	0.499	0.159	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.14**
		U_{28} - U_{29}	1471.90	-----	-218	-110	12	-48	-942	-324	-308	-97	0.890	0.104	1.00	Yes	0.633	0.073	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.31**
		U_{29} - U_{30}	1287.51	-----	-613	3597	-159	1503	-475	240	-256	187	0.633	0.365	1.00	Yes	0.448	0.239	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		U_{30} - U_{31}	1270.05	-----	3642	-866	1500	-256	58	540	118	333	0.625	0.374	1.00	Yes	0.442	0.245	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.46**
		U_{31} - U_{32}	1215.65	-----	-203	95	-361	-560	537	1140	775	1026	0.821	0.179	1.00	Yes	0.585	0.125	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.95**
		U_{32} - U_{33}	930.34	-----	565	298	274	-868	310	300	730	386	0.786	0.211	1.00	Yes	0.528	0.141	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.45**
		U_{33} - U_{34}	843.55	-813.35	550	356	-190	-1055	101	249	527	304	0.713	0.213	0.93	Yes	0.485	0.139	0.63	Yes	0.813	0.178	1	Yes	0.808	0.149	0.96	Yes	1.00	**7.59**
		U_{34} - U_{35}	-----	-980.59	465	76	-195	-1175	106	39	384	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.143	1	Yes	0.846	0.143	0.99	Yes	1.00	**5.40**
		U_{35} - U_{36}	-----	-1260.24	244	-190	-448	-819	93	130	550	111	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.130	1	Yes	0.855	0.087	0.95	Yes	1.00	**4.97**
		U_{36} - U_{37}	-----	-1413.69	-74	6	-698	-1607	165	-24	215	-223	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.187	1	Yes	0.805	0.143	0.95	Yes	1.00	**4.41**
		U_{37} - U_{38}	-----	-1405.76	116	-178	-1440	-759	21	38	72	-223	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.190	1	Yes	0.800	0.128	0.93	Yes	1.00	**4.36**
		U_{38} - U_{39}	-----	-1613.41	128	-359	-426	-1709	88	-82	286	-444	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.165	1	Yes	0.828	0.142	0.97	Yes	1.00	**4.80**
		U_{39} - U_{40}	-----	-1517.32	-273	-453	-1934	-875	-115	-119	221	-215	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.213	1	Yes	0.779	0.160	0.94	Yes	1.00	**4.42**
		U_{40} - U_{41}	-----	-1474.62	-345	-410	-939	-856	-90	-97	-200	-416	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.149	1	Yes	0.840	0.084	0.93	Yes	1.00	**5.11**
		U_{41} - U_{42}	-----	-1177.58	-216	-192	-1173	-129	-73	103	-158	-380	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.156	1	Yes	0.836	0.119	0.96	Yes	1.00	**5.32**
		U_{42} - U_{43}	-----	-854.95	-228	-57	-851	-43	186	-10	-231	-372	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.160	1	Yes	0.825	0.129	0.96	Yes	1.00	**5.82**
		U_{43} - U_{44}	-----	-618.97	-25	-236	-1364	276	-8	19	-93	-390	-----	-----	-----	-----	-----	-----	-----	-----	0.735	0.264	1	Yes	0.731	0.232	0.97	Yes	1.00	**10.16**
	Structure 3	U_0 - U_1	-----	-666.00	158	-137	34	-1220	63	122	423	-148	-----	-----	-----	-----	-----	-----	-----	-----	0.756	0.211	0.97	Yes	0.749	0.245	1.00	Yes	1.00	**12.94**
		U_1 - U_2	-----	-708.09	-68	-105	-13	-622	249	510	316	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.192	1	Yes	0.797	0.125	0.93	Yes	1.00	**5.27**
		U_2 - U_3	-----	-1070.30	-80	-109	-77	-630	517	3	245	38	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.144	1	Yes	0.837	0.102	0.94	Yes	1.00	**5.71**
		U_3 - U_4	-----	-1431.66	-141	-193	-500	-1086	125	-246	487	331	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.167	1	Yes	0.821	0.120	0.95	Yes	1.00	**6.17**
		U_4 - U_5	-----	-1526.65	-317	-25	-614	-470	-24	-319	186	-571	-----	-----	-----	-----	-----	-----	-----	-----	0.885	0.108	1	Yes	0.875	0.068	0.95	Yes	1.00	**5.75**
		U_5 - U_6	-----	-1333.61	-156	-235	-561	-1607	-44	-203	-8	-235	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.218	1	Yes	0.765	0.177	0.95	Yes	1.00	**4.31**
		U_6 - U_7	-----	-1342.72	-315	-92	-1705	-420	-80	-230	38	-198	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.216	1	Yes	0.770	0.188	0.96	Yes	1.00	**4.38**
		U_7 - U_8	-----	-1322.98	-117	-20	-473	-166	-233	-222	83	-290	-----	-----	-----	-----	-----	-----	-----	-----	0.895	0.101	1	Yes	0.884	0.065	0.95	Yes	1.00	**5.68**
		U_8 - U_9	-----	-906.99	-117	197	-841	-1	-98	-108	85	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.136	1	Yes	0.851	0.140	1.00	Yes	1.00	**4.83**
		U_9 - U_{10}	-----	-612.10	-41	290	-889	249	-225	-120	-221	-380	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.203	1	Yes	0.781	0.199	0.99	Yes	1.00	**6.89**
		U_{10} - U_{11}	737.30	-----	279	233	-481	240	-356	2	-542	-411	0.800	0.195	1.00	Yes	0.542	0.131	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.31**
		U_{11} - U_{12}	837.08	-----	-530	1519	-178	612	-455	-25	-295	9	0.686	0.311	1.00	Yes	0.469	0.211	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.37**
		U_{12} - U_{13}	1013.47	-----	1743	-388	646	-45	-285	188	-147	55	0.702	0.293	1.00	Yes	0.490	0.200	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		U_{13} - U_{14}	892.26	-----	198	367	-21	-272	-171	412	251	477	0.853	0.144	1.00	Yes	0.596	0.099	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.10**
		U_{14} - U_{15}	716.64	-----	465	294	350	-345	32	186	379	-143	0.821	0.175	1.00	Yes	0.554	0.115	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.56**
		U_{15} - U_{16}	382.50	-571.66	308	167	-123	-958	-21	157	108	115	0.438	0.254	0.70	Yes	0.301	0.175	0.48	Yes	0.778	0.213	1	Yes	0.771	0.228	1.00	Yes	1.00	**5.57**
		U_{16} - U_{17}	383.82	-586.38	346	108	-776	-345	19	89	201	-11	0.440	0.218	0.66	Yes	0.302	0.150	0.46	Yes	0.798	0.192	1	Yes	0.791	0.184	0.98	Yes	1.00	**5.67**
		U_{17} - U_{18}	217.38	-618.81	338	-107	-211	-619	-81	231	95	-350	0.249	0.206	0.46	Yes	0.168	0.135	0.31	Yes	0.842	0.149	1	Yes	0.834	0.147	0.99	Yes	1.00	**5.56**
		U_{18} - U_{19}	-----	-575.34	100	-19	-764	-180	216	55	207	5	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.216	1	Yes	0.776	0.182	0.96	Yes	1.00	**5.16**
		U_{19} - U_{20}	-----	-615.87	226	-304	-686	70	-22	47	220	-308	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.150	0.99	Yes	0.830	0.163	1.00	Yes	1.00	**10.06**

Axial AB Operating

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

				Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression												Controlling Bi-Axial Moment & Axial Value	Rating
								Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield									
						Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
						(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
Center Truss - Lower Chord	Structure 1	L_0 - L_1				127.82	-----	1060	-1461	685	-1027	-459	-1687	-234	-861	0.196	0.800	1.00	Yes	0.115	0.480	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**33.81**
		L_1 - L_2				444.35	-----	-38	-684	37	87	-494	227	54	1	0.680	0.312	1.00	Yes	0.415	0.205	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**7.72**
		L_2 - L_3				707.36	-----	-607	-557	27	173	198	-164	0	-17	0.814	0.178	1.00	Yes	0.471	0.107	0.58	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**8.11**
		L_3 - L_4				654.80	-293.56	-310	-937	83	327	-121	89	-18	-2	0.753	0.246	1.00	Yes	0.447	0.159	0.61	Yes	0.401	0.224	0.63	Yes	0.397	0.226	0.63	Yes					1.00	**6.68**
		L_4 - L_5				-----	-536.66	-674	284	103	495	-197	16	172	-109	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.144	0.97	Yes	0.818	0.179	1.00	Yes					1.00	**5.31**
		L_5 - L_6				-----	-736.32	-283	197	145	568	198	153	29	95	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.135	1	Yes	0.850	0.126	0.98	Yes					1.00	**5.36**
		L_6 - L_7				-----	-1195.65	-54	102	-133	122	117	-42	156	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.973	0.018	1	Yes	0.962	0.021	0.99	Yes					1.00	**6.08**
		L_7 - L_8				-----	-1254.41	-33	583	-99	1465	41	72	107	155	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.194	1	Yes	0.794	0.194	0.99	Yes					1.00	**4.04**
		L_8 - L_9				-----	-1271.90	554	-47	1385	-101	37	-14	123	54	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.178	1	Yes	0.806	0.183	0.99	Yes					1.00	**4.18**
		L_9 - L_{10}				-----	-1178.07	195	-164	312	-252	24	9	188	65	-----	-----	-----	-----	-----	-----	-----	-----	0.959	0.034	1	Yes	0.948	0.049	1.00	Yes					1.00	**7.20**
		L_{10} - L_{11}				-----	-542.48	236	-518	646	-363	18	-141	96	87	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.090	0.93	Yes	0.826	0.171	1.00	Yes					1.00	**6.94**
		L_{11} - L_{12}				588.22	-----	263	-749	389	-166	-186	174	-15	8	0.762	0.231	1.00	Yes	0.457	0.151	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**7.00**
		L_{12} - L_{13}				1128.02	-----	-297	-468	109	-78	7	-179	-15	-35	0.890	0.104	1.00	Yes	0.569	0.062	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**7.31**
		L_{13} - L_{14}				1270.55	-----	227	-1612	231	-391	-250	119	-105	61	0.747	0.243	1.00	Yes	0.484	0.149	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.63**
		L_{14} - L_{15}				1610.61	-----	-1555	-499	-344	-81	-314	112	-68	-51	0.787	0.209	1.00	Yes	0.511	0.127	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.34**
		L_{15} - L_{16}				1708.07	-----	-962	-1170	-184	-390	322	228	-79	10	0.834	0.164	1.00	Yes	0.536	0.096	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**7.85**
		L_{16} - L_{17}				1255.93	-----	-1223	74	-392	33	-260	-76	-35	-63	0.794	0.203	1.00	Yes	0.515	0.125	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**7.47**
		L_{17} - L_{18}				940.26	-----	-712	146	-175	-64	-227	-316	-5	25	0.819	0.178	1.00	Yes	0.524	0.107	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**9.82**
		L_{18} - L_{19}				494.36	-----	-622	288	-251	183	-29	-235	10	-3	0.757	0.236	1.00	Yes	0.512	0.148	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**8.69**
		L_{19} - L_{20}				257.86	-----	-1117	493	-1609	938	-68	-16	581	130	0.395	0.603	1.00	Yes	0.241	0.403	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**22.17**
	Structure 2	L_0 - L_1				75.48	-----	1229	-3201	665	-2084	-440	-1528	-217	-752	0.092	0.902	1.00	Yes	0.055	0.572	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**30.52**
		L_1 - L_2				570.01	-----	383	-1158	125	-128	-423	226	82	84	0.692	0.305	1.00	Yes	0.412	0.194	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**7.96**
		L_2 - L_3				1070.91	-----	-73	-886	-26	-92	242	-88	115	174	0.844	0.154	1.00	Yes	0.553	0.092	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**7.38**
		L_3 - L_4				1413.11	-----	-55	-1293	43	-256	-167	183	50	128	0.830	0.166	1.00	Yes	0.559	0.103	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.66**
		L_4 - L_5				1832.59	-----	-1038	-1284	-207	-161	237	-80	15	-13	0.854	0.137	1.00	Yes	0.566	0.082	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.94**
		L_5 - L_6				1941.93	-----	-796	-1608	-9	-245	-355	177	-92	56	0.833	0.165	1.00	Yes	0.559	0.101	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.55**
		L_6 - L_7				1961.71	-----	-1691	-1625	-301	-4	256	21	55	-33	0.830	0.164	1.00	Yes	0.552	0.096	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.32**
		L_7 - L_8				1357.64	-----	-1483	-442	-147	301	-599	-242	-60	80	0.778	0.213	1.00	Yes	0.511	0.127	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.22**
		L_8 - L_9				1117.87	-----	-1029	-48	-73	536	196	827	49	-141	0.782	0.217	1.00	Yes	0.527	0.138	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.84**
		L_9 - L_{10}				784.08	-742.71	-1322	166	-21	705	372	-140	-42	6	0.700	0.256	0.96	Yes	0.407	0.159	0.57	Yes	0.785	0.162	0.95	Yes	0.780	0.211	1.00	Yes					1.00	**7.42**
		L_{10} - L_{11}				-----	-730.14	-764	489	36	567	-209	-141	126	-47	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.103	0.97	Yes	0.858	0.134	1.00	Yes					1.00	**5.11**
		L_{11} - L_{12}				-----	-999.85	-520	694	-681	1280	-326	-235	-26	20	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.123	0.95	Yes	0.820	0.174	1.00	Yes					1.00	**4.85**
		L_{12} - L_{13}				-----	-1479.53	-264	-266	-425	-844	64	-73	43	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.892	0.105	1	Yes	0.885	0.084	0.97	Yes					1.00	**5.26**
		L_{13} - L_{14}				-----	-1463.16	-488	1434	-1077	2959	-78	-111	-60	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.176	0.92	Yes	0.736	0.258	1.00	Yes					1.00	**3.50**
		L_{14} - L_{15}				-----	-1477.37	1394	-536	2888	-1118	-127	-109	-80	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.750	0.169	0.92	Yes	0.743	0.252	1.00	Yes					1.00	**3.39**
		L_{15} - L_{16}				-----	-1484.60	-431	-54	-1031	-119	-66	-36	-13	-25	-----	-----	-----	-----	-----	-----	-----	-----	0.895	0.097	1	Yes	0.888	0.102	1.00	Yes					1.00	**4.69**
		L_{16} - L_{17}				-----	-1134.15	612	-64	1395	-274	22	-4	41	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.132	0.97	Yes	0.826	0.172	1.00	Yes					1.00	**4.41**
		L_{17} - L_{18}				-----	-832.31	430	-386	730	-356	-104	77	126	151	-----	-----	-----	-----	-----	-----	-----	-----	0.880	0.090	0.98	Yes	0.874	0.117	1.00	Yes					1.00	**5.24**
		L_{18} - L_{19}				-----	-663.42	279	-436	589	145	105	-66	-13	-52	-----	-----	-----	-----	-----	-----	-----	-----	0.890	0.093	0.99	Yes	0.884	0.114	1.00	Yes					1.00	**5.38**
		L_{19} - L_{20}				-----	-652.58	200	-674	480	284	-171	142	-70	-21	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.111	0.99	Yes	0.870	0.130	1.00	Yes					1.00	**6.65**
		L_{20} - L_{21}				1056.94	-811.39	-535	-892	591	257	8	-205	15	-64	0.843	0.152	1.00	Yes	0.553	0.091	0.65	Yes	0.767	0.126	0.9	Yes	0.761	0.130	0.90	Yes					1.00	**9.49**
		L_{21} - L_{22}				919.10	-494.69	-351	-1551	307	107	-258	317	-44	-37	0.733	0.260	1.00	Yes	0.490	0.164	0.66	Yes	0.467	0.195	0.67	Yes	0.464	0.226	0.70	Yes					1.00	**6.58**
		L_{22} - L_{23}				931.93	-----	-1514	-559	120	260	-263	114	82	-65	0.743	0.249	1.00	Yes	0.497	0.156	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.70**
		L_{23} - L_{24}				997.97	-705.93	-1092	-612	194	425	382	278	27	63	0.796	0.201	1.00	Yes	0.522	0.121	0.65	Yes	0.667	0.192	0.86	Yes	0.662	0.159	0.83	Yes					1.00	**8.91**
		L_{24} - L_{25}				423.76	-625.25	-829	218	209	463	-162	34	133	-133	0.480	0.185	0.67	Yes	0.284	0.118	0.41	Yes	0.838	0.118	0.96	Yes	0.833	0.160	1.00	Yes					1.00	**6.92**
		L_{25} - L_{26}				-----	-668.64	-551	386	134	545	3	71	18	74	-----	-----	-----	-----	-----	-----	-----	-----	0.897	0.084	0.99	Yes	0.891	0.106	1.00	Yes					1.00	**6.13**
		L_{26} - L_{27}				-----	-818.59	-363	421	-705	855	28	-171	86	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.078	0.95	Yes	0.860	0.137	1.00	Yes					1.00	**6.24**
		L_{27} - L_{28}				-----	-1126.10	-98	535	-350	1405	29	109	66	145	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.134	0.97	Yes	0.820	0.173	1.00	Yes					1.00	**4.90**
		L_{28} - L_{29}				-----	-1472.27	-130	-363	-241	-1016	121	16	169	7	-----	-----	-----	-----	-----	-----	-----	-----	0.888	0.109	1	Yes	0.881	0.101	0.99	Yes					1.00	**4.97**
		L_{29} - L_{30}				-----	-1472.29	-484	1306	-1116	2911	21	13	15	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.164	0.92	Yes	0.741	0.254	1.00	Yes					1.00	**3.63**
		L_{30} - L_{31}				-----	-1465.15	1334	-471	2986	-1103	-6	-18	-42	-44	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.172	0.92	Yes	0.737	0.261	1.00	Yes					1.00	**3.65**
		L_{31} - L_{32}				-----	-1485.59	-295	-163	-914	-332	5	15	-5	-17	-----	-----	-----	-----	-----	-----	-----	-----	0.896	0.099	1	Yes	0.889	0.091	0.98	Yes					1.00	**5.35**
		L_{32} - L_{33}				-----	-1005.01	621	-569	1274	-487	78	-29	165	-110	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.120	0.96	Yes	0.824	0.174	1.00	Yes					1.00	**4.83**
		L_{33} - L_{34}				-----	-740.95	465	-719	535	117	-22	190	1	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.102	0.98	Yes	0.870	0.126	1.00	Yes					1.00	**5.03**
		L_{34} - L_{35}				796.13	-787.14	26	-1068	777	23	181	-142	4	-52	0.711	0.193	0.91	Yes	0.414	0.120	0.54	Yes	0.832	0.105	0.94	Yes	0.827	0.171	1.00	Yes					1.00	**7.45**
		L_{35} - L_{36}				1173.34	-----	94	-997	578	5	-444	248	-78	0	0.821	0.176	1.00	Yes	0.553	0.111	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.65**
		L_{36} - L_{37}				1408.40	-----	-436	-1501	410	-6	306	34	13	-18	0.808	0.191	1.00	Yes	0.530	0.113	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.76**
		L_{37} - L_{38}				1908.89	-----	-1525	-1666	114	-367	-726	-182	-47	47	0.808	0.191	1.00	Yes	0.537	0.114	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.46**
		L_{38} - L_{39}				1855.02	-----	-1659	-1164	-289	-53	287	854	-5	-67	0.796	0.200	1.00	Yes	0.534	0.125	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.39**
		L_{39} - L_{40}				1761.84	-----	-1613	-769	-196	-376	362	-122	-61	-6	0.821	0.177	1.00	Yes	0.544	0.105	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**7.18**
		L_{40} - L_{41}				1416.38	-----	-1215	-84	-343	3	-288	-146	-1	3	0.832	0.165	1.00	Yes	0.560	0.103	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**7.62**
		L_{41} - L_{42}				1030.53	-----	-1029	112	-140	-128	-255	-290	79	190	0.812	0.180	1.00	Yes	0.533	0.108	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**8.72**
		L_{42} - L_{43}				573.97	-----	-1213	393	-249	139	-163	283	245	115	0.697	0.293	1.00	Yes	0.415	0.188	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**10.08**
		L_{43} - L_{44}				214.08	-----	-2253	715	-2672	897	-897	-262	1141	333	0.260	0.731	1.00	Yes	0.155	0.465	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**36.00**
	Structure 3	L_0 - L_1				66.78	-----	-29	-21	1358	-2380	5	25	-191	-865	0.102	0.894	1.00	Yes	0.062	0.597	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**37.26**
		L_1 - L_2				451.86	-----	386	-805	146	-165	-291	298	36	59	0.692	0.303	1.00	Yes	0.468	0.191	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**8.04**
		L_2 - L_3				959.10	-----	-12	-627	-25	-135	304	-45	86	127	0.835	0.160	1.00	Yes	0.535	0.097	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**8.51**
		L_3 - L_4				1291.80	-----	18	-1108	41	-294	-176	196	30	120	0.817	0.180	1.00	Yes	0.530	0.111	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**7.63**
		L_4 - L_5				1751.49	-----	-1063	-787	-270	-126	87	-135	28	14	0.856	0.138	1.00	Yes	0.549	0.080	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**8.39**
		L_5 - L_6				1581.15	-----	-345	-1616	-35	-312	-225	374	-62	137	0.772	0.221	1.00	Yes	0.502	0.134	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.39**
		L_6 - L_7				1331.22	-----	-1423	-6	-343	214	-222	177	5	-34	0.783	0.215	1.00	Yes	0.507	0.131	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.22**
		L_7 - L_8				1087.15	-----	-548	-342	-78	76	337	329	-30	52	0.858	0.137	1.00	Yes	0.549	0.083	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.86**
		L_8 - L_9				573.51	-----	-856	332	-177	398	-144	-21	71	-86	0.743	0.252	1.00	Yes	0.446	0.166	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**7.07**
		L_9 - L_{10}				-----	-536.04	-610	332	-444	674	-39	8	-52	-13	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.078	0.91	Yes	0.817	0.178	1.00	Yes					1.00	**7.44**
		L_{10} - L_{11}				-----	-1168.64	-193	194	-300	325	74	-128	9	-295	-----	-----	-----	-----	-----	-----	-----	-----	0.951	0.030	0.99	Yes	0.941	0.051	1.00	Yes					1.00	**7.46**
		L_{11} - L_{12}				-----	-1264.74	-55	534	-122	1403	-84	-98	-133	-198	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.187	1	Yes	0.801	0.186	0.99	Yes					1.00	**4.38**
		L_{12} - L_{13}				-----	-1241.04	557	-34	1430	-98	-129	-138	-213	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.197	1	Yes	0.786	0.189	0.98	Yes					1.00	**4.00**
		L_{13} - L_{14}				-----	-1194.17	92	-36	77	-69	-87	-75	-71	-85	-----	-----	-----	-----	-----	-----	-----	-----	0.972	0.018	1	Yes	0.961	0.014	0.98	Yes					1.00	**6.02**
		L_{14} - L_{15}				-----	-744.45	210	-217	571	146	-33	-142	-31	-88	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.126	1	Yes	0.859	0.126	0.99	Yes					1.00	**5.46**
		L_{15} - L_{16}				-----	-544.93	294	-631	471	155	-174	346	-2	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.162	1	Yes	0.830	0.167	1.00	Yes					1.00	**5.35**
		L_{16} - L_{17}				703.09	-275.87	-636	-497	383	40	-223	43	57	-81	0.809	0.189	1.00	Yes	0.480	0.122	0.61	Yes	0.377	0.205	0.59	Yes	0.373	0.154	0.53	Yes					1.00	**7.03**
		L_{17} - L_{18}				693.86	-----	-618	-709	118	-44	177	113	42	102	0.798	0.200	1.00	Yes	0.462	0.120	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**7.07**
		L_{18} - L_{19}				451.62	-----	-843	65	47	15	-119	238	52	-73	0.691	0.304	1.00	Yes	0.422	0.204	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**7.40**
		L_{19} - L_{20}				24.74	-----	-97	-7	-2060	1773	-61	-17	1572	428	0.038	0.956	1.00	Yes	0.022	0.576	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**58.74**

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass				
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																			
Center Truss - Verticals	Structure 1	$U_0 - L_0$			-----	-328.10	1	19	-122	196	-69	-22	-545	-175	-----	-----	-----	-----	-----	-----	-----	-----	0.733	0.261	1	Yes	0.694	0.251	0.95	Yes	1.00	**4.09**
		$U_1 - L_1$			-----	-332.90	56	-52	-216	224	106	41	-117	-49	-----	-----	-----	-----	-----	-----	-----	-----	0.727	0.113	0.85	Yes	0.704	0.286	1.00	Yes	1.00	**7.23**
		$U_2 - L_2$			137.40	-310.11	121	-136	-214	265	97	9	62	101	0.247	0.368	0.62	Yes	0.136	0.202	0.34	Yes	0.678	0.136	0.82	Yes	0.656	0.339	1.00	Yes	1.00	**9.71**
		$U_3 - L_3$			238.76	-----	201	-236	-350	376	-251	-246	25	285	0.429	0.563	1.00	Yes	0.236	0.309	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**14.76**
		$U_4 - L_4$			-----	-372.03	54	-55	158	-161	-160	-74	-94	-42	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.097	0.92	Yes	0.787	0.206	1.00	Yes	1.00	**4.84**
		$U_5 - L_5$			-----	-423.57	59	-66	247	-261	-150	-46	-95	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.106	0.88	Yes	0.731	0.264	1.00	Yes	1.00	**3.88**
		$U_6 - L_6$			-----	-465.38	72	-72	194	-210	-135	0	1130	418	-----	-----	-----	-----	-----	-----	-----	-----	0.705	0.289	1	Yes	0.667	0.184	0.86	Yes	1.00	**3.31**
		$U_7 - L_7$			-----	-434.92	119	-132	302	-327	-130	46	-1	99	-----	-----	-----	-----	-----	-----	-----	-----	0.727	0.125	0.86	Yes	0.671	0.322	1.00	Yes	1.00	**3.06**
		$U_8 - L_8$			-----	-1353.89	-27	28	-11	12	-220	-68	-219	-92	-----	-----	-----	-----	-----	-----	-----	-----	0.978	0.022	1	Yes	0.939	0.005	0.95	Yes	1.00	**4.41**
		$U_9 - L_9$			-----	-656.20	-176	203	-401	463	-245	-171	-316	-254	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.146	0.93	Yes	0.741	0.257	1.00	Yes	1.00	**4.25**
		$U_{10} - L_{10}$			-----	-823.22	-115	115	-362	350	-203	-146	-319	-257	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.115	0.97	Yes	0.812	0.187	1.00	Yes	1.00	**6.25**
		$U_{11} - L_{11}$			-----	-671.27	-118	161	-373	465	-140	-32	-157	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.092	0.9	Yes	0.781	0.216	1.00	Yes	1.00	**5.50**
		$U_{12} - L_{12}$			-----	-535.42	-103	102	-298	307	-125	5	-99	63	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.090	0.87	Yes	0.735	0.262	1.00	Yes	1.00	**5.00**
		$U_{13} - L_{13}$			-----	-368.67	-64	78	-237	256	-106	45	-80	107	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.102	0.85	Yes	0.706	0.293	1.00	Yes	1.00	**3.83**
		$U_{14} - L_{14}$			-----	-401.31	-39	45	-97	111	-149	-49	-189	-37	-----	-----	-----	-----	-----	-----	-----	-----	0.895	0.099	1	Yes	0.849	0.142	1.00	Yes	1.00	**5.82**
		$U_{15} - L_{15}$			54.30	-296.40	-45	44	277	-285	-156	-89	-94	-227	0.098	0.429	0.53	Yes	0.054	0.236	0.29	Yes	0.664	0.180	0.85	Yes	0.627	0.364	1.00	Yes	1.00	**7.76**
		$U_{16} - L_{16}$			-----	-282.00	19	-23	164	-180	-167	-116	1444	8	-----	-----	-----	-----	-----	-----	-----	-----	0.635	0.357	1	Yes	0.597	0.230	0.83	Yes	1.00	**4.75**
		$U_{17} - L_{17}$			-----	-436.97	43	-55	218	-236	-170	-99	41	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.131	0.95	Yes	0.754	0.239	1.00	Yes	1.00	**4.52**
		$U_{18} - L_{18}$			-----	-537.86	116	-121	426	-444	-157	-63	66	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.094	0.89	Yes	0.748	0.251	1.00	Yes	1.00	**5.37**
		$U_{19} - L_{19}$			-----	-651.17	130	-143	483	-509	-69	3	363	148	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.149	0.97	Yes	0.758	0.236	1.00	Yes	1.00	**6.05**
		$U_{20} - L_{20}$			-----	-598.15	163	-209	404	-503	17	2	544	71	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.200	1	Yes	0.696	0.233	0.93	Yes	1.00	**4.50**
	Structure 2	$U_0 - L_0$			-----	-648.42	-94	155	-403	522	-274	-46	-787	-133	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.216	1	Yes	0.695	0.221	0.92	Yes	1.00	**4.06**
		$U_1 - L_1$			-----	-701.25	-87	94	-469	511	58	-71	-866	-285	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.196	1	Yes	0.752	0.217	0.97	Yes	1.00	**5.49**
		$U_2 - L_2$			-----	-590.24	-49	57	-444	470	132	52	-697	-195	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.174	0.97	Yes	0.752	0.240	1.00	Yes	1.00	**5.66**
		$U_3 - L_3$			-----	-488.01	-24	29	-215	237	41	146	-509	-167	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.167	1	Yes	0.765	0.216	0.99	Yes	1.00	**5.27**
		$U_4 - L_4$			-----	-341.67	17	-9	-205	212	-42	101	40	238	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.127	0.91	Yes	0.723	0.271	1.00	Yes	1.00	**6.03**
		$U_5 - L_5$			-----	-336.88	79	-77	-191	219	-97	0	4	245	-----	-----	-----	-----	-----	-----	-----	-----	0.761	0.128	0.89	Yes	0.713	0.280	1.00	Yes	1.00	**8.24**
		$U_6 - L_6$			234.83	-----	139	-147	-257	265	-814	-113	39	308	0.422	0.575	1.00	Yes	0.232	0.316	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.36**
		$U_7 - L_7$			-----	-282.18	79	-93	119	-136	-114	-24	-1186	-119	-----	-----	-----	-----	-----	-----	-----	-----	0.637	0.360	1	Yes	0.597	0.173	0.78	Yes	1.00	**5.60**
		$U_8 - L_8$			-----	-459.27	113	-125	371	-383	-166	-113	-643	-478	-----	-----	-----	-----	-----	-----	-----	-----	0.666	0.224	0.89	Yes	0.662	0.335	1.00	Yes	1.00	**5.64**
		$U_9 - L_9$			-----	-669.53	202	-207	458	-513	-220	-118	1870	315	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.254	1	Yes	0.718	0.218	0.94	Yes	1.00	**5.49**
		$U_{10} - L_{10}$			-----	-782.57	184	-194	562	-586	-162	-77	-45	-97	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.097	0.88	Yes	0.732	0.259	1.00	Yes	1.00	**6.27**
		$U_{11} - L_{11}$			-----	-845.54	196	-196	435	-467	-122	-13	-81	34	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.078	0.93	Yes	0.791	0.206	1.00	Yes	1.00	**4.46**
		$U_{12} - L_{12}$			-----	-889.62	192	-191	514	-492	-59	45	49	119	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.086	0.94	Yes	0.771	0.221	1.00	Yes	1.00	**4.65**
		$U_{13} - L_{13}$			-----	-660.94	264	-271	513	-517	-112	9	917	121	-----	-----	-----	-----	-----	-----	-----	-----	0.737	0.257	1	Yes	0.637	0.247	0.89	Yes	1.00	**3.21**
		$U_{14} - L_{14}$			-----	-1337.61	78	-77	81	-86	-101	57	-110	35	-----	-----	-----	-----	-----	-----	-----	-----	0.978	0.012	1	Yes	0.887	0.015	0.91	Yes	1.00	**4.25**
		$U_{15} - L_{15}$			-----	-706.69	-136	151	-658	660	-32	15	-184	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.157	0.95	Yes	0.681	0.316	1.00	Yes	1.00	**5.71**
		$U_{16} - L_{16}$			-----	-735.52	-83	49	-490	450	-134	-53	-292	-207	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.116	0.97	Yes	0.788	0.208	1.00	Yes	1.00	**4.82**
		$U_{17} - L_{17}$			-----	-640.37	-138	125	-539	531	-85	-42	-160	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.092	0.89	Yes	0.745	0.250	1.00	Yes	1.00	**4.15**
		$U_{18} - L_{18}$			-----	-611.95	-130	116	-379	419	-77	-39	-188	-60	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.088	0.91	Yes	0.780	0.215	1.00	Yes	1.00	**3.91**
		$U_{19} - L_{19}$			-----	-490.31	-86	77	-276	277	-90	-43	-131	62	-----	-----	-----	-----	-----	-----	-----	-----	0.738	0.081	0.82	Yes	0.732	0.267	1.00	Yes	1.00	**5.75**
		$U_{20} - L_{20}$			-----	-386.41	-58	61	-209	222	-112	-13	-149	76	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.103	0.9	Yes	0.740	0.254	1.00	Yes	1.00	**5.61**
	Structure 3	$U_{21} - L_{21}$			-----	-317.20	-39	40	-247	257	-140	-67	-132	97	-----	-----	-----	-----	-----	-----	-----	-----	0.717	0.129	0.85	Yes	0.671	0.328	1.00	Yes	1.00	**5.88**
		$U_{22} - L_{22}$			-----	-423.55	-5	6	0	2	-131	-46	-131	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.953	0.044	1	Yes	0.896	0.007	0.91	Yes	1.00	**6.16**
		$U_{23} - L_{23}$			-----	-307.58	24	-25	263	-269	-91	34	-97	-149	-----	-----	-----	-----	-----	-----	-----	-----	0.695	0.145	0.85	Yes	0.651	0.344	1.00	Yes	1.00	**6.25**
		$U_{24} - L_{24}$			-----	-319.21	52	-55	154	-169	-134	-51	1240	159	-----	-----	-----	-----	-----	-----	-----	-----	0.654	0.341	1	Yes	0.612	0.193	0.81	Yes	1.00	**4.22**
		$U_{25} - L_{25}$			-----	-469.80	81	-78	305	-302	-121	32	79	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.087	0.8	Yes	0.702	0.294	1.00	Yes	1.00	**5.10**
		$U_{26} - L_{26}$			-----	-602.09	135	-134	404	-454	-153	22	-64	12	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.086	0.89	Yes	0.767	0.232	1.00	Yes	1.00	**3.94**
		$U_{27} - L_{27}$			-----	-628.16	157	-155	566	-567	-148	42	-98	55	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.082	0.86	Yes	0.731	0.263	1.00	Yes	1.00	**4.05**
		$U_{28} - L_{28}$			-----	-656.13	136	-118	441	-433	-117	38	1358	261	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.237	1	Yes	0.703	0.187	0.90	Yes	1.00	**3.67**
		$U_{29} - L_{29}$			-----	-695.26	222	-242	674	-671	-197	-41	110	117	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.142	0.92	Yes	0.670	0.322	1.00	Yes	1.00	**4.83**
		$U_{30} - L_{30}$			-----	-1334.21	-3	-10	19	-47	-132	-19	-123	-4	-----	-----	-----	-----	-----	-----	-----	-----	0.976	0.021	1	Yes	0.885	0.008	0.90	Yes	1.00	**4.36**
		$U_{31} - L_{31}$			-----	-744.71	-187	189	-586	587	-113	-43	-195	-141	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.149	0.98	Yes	0.718	0.281	1.00	Yes	1.00	**4.76**
		$U_{32} - L_{32}$			-----	-903.40	-123	88	-483	446	-183	-107	-294	-195	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.133	1	Yes	0.783	0.207	1.00	Yes	1.00	**5.09**
		$U_{33} - L_{33}$			-----	-858.26	-169	146	-404	430	-139	-78	-156	-82	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.080	0.95	Yes	0.802	0.190	1.00	Yes	1.00	**4.84**
		$U_{34} - L_{34}$			-----	-818.39	-156	162	-507	524	-102	19	145	-159	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.080	0.89	Yes	0.765	0.231	1.00	Yes	1.00	**7.80**
		$U_{35} - L_{35}$			-----	-617.22	-180	186	-408	439	-105	35	2022	582	-----	-----	-----	-----	-----	-----	-----	-----	0.687	0.307	1	Yes	0.661	0.186	0.85	Yes	1.00	**5.90**
		$U_{36} - L_{36}$			-----	-471.30	-103	116	-341	358	-103	47	-52	192	-----	-----	-----	-----	-----	-----	-----	-----	0.683	0.101	0.79	Yes	0.679	0.313	1.00	Yes	1.00	**5.74**
		$U_{37} - L_{37}$			-----	-291.64	-57	68	-57	68	-121	-8	-1248	-49	-----	-----	-----	-----	-----	-----	-----	-----	0.659	0.335	1	Yes	0.617	0.087	0.71	Yes	1.00	**5.66**
		$U_{38} - L_{38}$			219.72	-----	-153	168	256	-257	-117	-29	-935	-608	0.395	0.599	1.00	Yes	0.217	0.329	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.70**
		$U_{39} - L_{39}$			96.93	-275.70	-75	72	115	-143	-151	-58	1464	-19	0.174	0.607	0.79	Yes	0.096	0.334	0.43	Yes	0.623	0.368	1	Yes	0.583	0.183	0.77	Yes	1.00	**5.75**
		$U_{40} - L_{40}$			-----	-328.89	-20	11	231	-232	-129	-59	-57	-128	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.126	0.88	Yes	0.696	0.296	1.00	Yes	1.00	**5.13**
		$U_{41} - L_{41}$			-----	-487.22	27	-34	236	-252	-102	-38	-91	-112	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.101	0.94	Yes	0.764	0.229	1.00	Yes	1.00	**4.89**
		$U_{42} - L_{42}$			-----	-582.69	71	-81	491	-502	-83	-55	59	26	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.080	0.87	Yes	0.742	0.257	1.00	Yes	1.00	**5.53**
		$U_{43} - L_{43}$			-----	-707.05	107	-124	521	-554	-59	-38	461	243	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.145	0.96	Yes	0.758	0.235	1.00	Yes	1.00	**5.91**
		$U_{44} - L_{44}$			-----	-662.63	179	-218	442	-567	-60	-10	663	112	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.200	1	Yes	0.710	0.241	0.96	Yes	1.00	**4.38**
	Structure 4	$U_0 - L_0$			-----	-578.82	-98	161	-366	459	-244	-32	-732	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.229	1	Yes	0.674	0.213	0.89	Yes	1.00	**4.53**
		$U_1 - L_1$			-----	-635.62	-104	111	-420	456	8	-74	-789	-210	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.205	1	Yes	0.740	0.212	0.96	Yes	1.00	**6.13**
		$U_2 - L_2$			-----	-545.24	-80	85	-390	419	92	37	-724	-182	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.190	0.99	Yes	0.758	0.237	1.00	Yes	1.00	**6.33**
		$U_3 - L_3$			-----	-449.58	-28	39	-192	215	5	124	-45	172	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.110	0.96	Yes	0.776	0.218	1.00	Yes	1.00	**5.55**
		$U_4 - L_4$			-----	-330.69	-9	12	-215	229	-74	99	-155	188	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.101	0.85	Yes	0.700	0.293	1.00	Yes	1.00	**6.50**
		$U_5 - L_5$			-----	-302.14	35	-32	-262	276	-115	23	-162	171	-----	-----	-----	-----	-----	-----	-----	-----	0.677	0.128	0.81	Yes	0.639	0.352	1.00	Yes	1.00	**7.68**
		$U_6 - L_6$			-----	-400.58	34	-37	109	-117	-149	-43	-113	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.894	0.087	0.99	Yes	0.848	0.150	1.00	Yes	1.00	**5.90**
		$U_7 - L_7$			-----	-359.42	61	-73	256	-272	-163	-111	-187	-173	-----	-----	-----	-----	-----	-----	-----	-----	0.727	0.148	0.88	Yes	0.689	0.310	1.00	Yes	1.00	**3.99**
		$U_8 - L_8$			-----	-472.98	103	-100	255	-268	-196	-126	1413	401	-----	-----	-----	-----	-----	-----	-----	-----	0.683	0.308	1	Yes	0.649	0.229	0.88	Yes	1.00	**4.12**
		$U_9 - L_9$			-----	-652.07	122	-164	411	-503	-154	-71	56	17	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.098	0.88	Yes	0.759	0.233	1.00	Yes	1.00	**5.10**
		$U_{10} - L_{10}$			-----	-803.32	120	-125	383	-394	-88	12	135	178	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.078	0.91	Yes	0.793	0.204	1.00	Yes	1.00	**5.80**
		$U_{11} - L_{11}$			-----	-641.54	185	-216	419	-487	-39	68	105	180	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.116	0.89	Yes	0.725	0.271	1.00	Yes	1.00	**3.88**
		$U_{12} - L_{12}$			-----	-1194.54	49	-76	101	-169	-99	13	1283	285	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.131	1	Yes	0.828	0.032	0.86	Yes	1.00	**3.95**
		$U_{13} - L_{13}$			-----	-447.18	-106	117	-286	309	-140	-95	-162	-137	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.147	0.9	Yes	0.690	0.304	1.00	Yes	1.00	**3.75**
		$U_{14} - L_{14}$			-----	-552.61	-63	59	-235	234	-163	-132	-275	-211	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.128	0.97	Yes	0.792	0.206	1.00	Yes	1.00	**4.84**
		$U_{15} - L_{15}$			-----	-434.31	-51	56	-233	243	-141	-63	-199	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.114	0.91	Yes	0.749	0.246	1.00	Yes	1.00	**4.07**
		$U_{16} - L_{16}$			-----	-378.14	-52	52	-146	152	-162	-84	-232	-118	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.118	0.95	Yes	0.800	0.194	1.00	Yes	1.00	**4.92**
		$U_{17} - L_{17}$			231.92	-----	-221	252	361	-376	-110	105	-293	-344	0.417	0.580	1.00	Yes	0.229	0.319	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**14.47**
		$U_{18} - L_{18}$			90.23	-224.42	-86	94	109	-146	-150	-64	1904	529	0.162	0.737	0.90	Yes	0.089	0.405	0.50	Yes	0.490	0.503	1	Yes	0.475	0.186	0.67	Yes	1.00	**5.79**
		$U_{19} - L_{19}$			-----	-322.80	-55	41	245	-247	-169	-95	149	53	-----	-----	-----	-----	-----	-----	-----	-----	0.705	0.134	0.84	Yes	0.683	0.316	1.00	Yes	1.00	**5.76**
		$U_{20} - L_{20}$			-----	-332.62	37	-37	162	-229	-224	-72	343	110	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.205	0.95	Yes	0.704	0.292	1.00	Yes	1.00	**3.73**

Axial AB Operating

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression											
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Diagonals	Structure 1	$U_0 - L_1$			610.27	-----	-60	51	22	-19	-509	-237	-39	-1	0.801	0.198	1.00	Yes	0.483	0.109	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.41**
		$U_1 - L_2$			429.39	-167.53	-100	26	30	-18	-320	-222	72	62	0.772	0.220	1.00	Yes	0.425	0.121	0.55	Yes	0.384	0.206	0.6	Yes	0.354	0.128	0.49	Yes	1.00	**8.49**
		$U_2 - L_3$			-----	-289.86	-113	17	53	-31	-383	-492	13	184	-----	-----	-----	-----	-----	-----	-----	-----	0.667	0.329	1	Yes	0.613	0.144	0.76	Yes	1.00	**11.23**
		$U_3 - L_4$			-----	-318.52	-75	-107	14	-52	-423	-347	-57	-15	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.266	1	Yes	0.674	0.137	0.82	Yes	1.00	**8.48**
		$U_4 - L_4$			597.74	-----	-92	38	-13	23	67	14	111	21	0.877	0.120	1.00	Yes	0.482	0.066	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.60**
		$U_5 - L_5$			678.00	-----	-149	271	-35	76	190	81	189	96	0.802	0.189	1.00	Yes	0.441	0.104	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		$U_7 - L_6$			651.67	-----	-282	262	-78	85	371	-26	296	170	0.770	0.228	1.00	Yes	0.424	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.32**
		$U_8 - L_7$			628.86	-----	-62	346	-8	115	310	215	243	175	0.743	0.253	1.00	Yes	0.409	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.60**
		$U_9 - L_9$			939.41	-----	8	431	54	177	370	319	137	110	0.751	0.239	1.00	Yes	0.465	0.134	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.58**
		$U_9 - L_{10}$			1013.88	-----	-289	318	-97	85	330	291	89	104	0.811	0.184	1.00	Yes	0.502	0.103	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.92**
		$U_{10} - L_{11}$			1021.03	-----	-201	258	-74	71	-1	-57	-53	-69	0.862	0.128	1.00	Yes	0.534	0.071	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.96**
		$U_{11} - L_{12}$			845.68	-----	-242	160	-79	29	-263	-279	-192	-163	0.837	0.154	1.00	Yes	0.460	0.085	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.21**
		$U_{12} - L_{13}$			622.51	-----	-192	167	-72	51	-357	-330	-229	-195	0.759	0.237	1.00	Yes	0.477	0.134	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.74**
		$U_{13} - L_{14}$			426.56	-----	-104	25	-27	10	-307	-330	-210	-207	0.767	0.228	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.29**
		$U_{15} - L_{14}$			379.17	-178.97	-148	-37	33	-49	-399	-417	4	-61	0.682	0.309	1.00	Yes	0.375	0.170	0.55	Yes	0.419	0.257	0.68	Yes	0.379	0.189	0.57	Yes	1.00	**12.63**
		$U_{16} - L_{15}$			402.27	-----	-134	92	-5	-12	-353	-352	-33	-75	0.724	0.274	1.00	Yes	0.398	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.98**
		$U_{17} - L_{16}$			489.35	-----	-144	83	-25	6	-173	-550	-23	-94	0.718	0.274	1.00	Yes	0.395	0.150	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.66**
		$U_{18} - L_{17}$			638.79	-----	-340	262	-94	56	-257	-225	4	-43	0.755	0.239	1.00	Yes	0.415	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.70**
		$U_{19} - L_{18}$			695.97	-----	-351	258	-100	64	-367	-141	38	0	0.754	0.240	1.00	Yes	0.415	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.93**
		$U_{20} - L_{19}$			679.13	-----	-362	311	-125	103	-454	-79	0	28	0.736	0.260	1.00	Yes	0.405	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.68**
	Structure 2	$U_0 - L_1$			756.09	-----	-382	369	-47	57	-498	-158	-126	61	0.748	0.252	1.00	Yes	0.411	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.52**
		$U_1 - L_2$			738.65	-----	-370	285	-66	41	-628	-254	60	20	0.731	0.266	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.56**
		$U_2 - L_3$			607.35	-----	-336	255	-38	27	-467	-182	-63	-185	0.718	0.275	1.00	Yes	0.395	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.53**
		$U_3 - L_4$			554.78	-----	-181	118	-12	-1	-431	-200	-237	-222	0.740	0.256	1.00	Yes	0.407	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.75**
		$U_4 - L_5$			388.86	-----	-131	87	18	-24	-427	-396	-143	-88	0.699	0.291	1.00	Yes	0.385	0.160	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.74**
		$U_5 - L_6$			363.66	-196.96	-129	62	61	-59	-608	-461	-101	-20	0.654	0.340	1.00	Yes	0.360	0.187	0.55	Yes	0.465	0.350	0.82	Yes	0.417	0.164	0.59	Yes	1.00	**9.64**
		$U_6 - L_7$			-----	-305.11	-59	-39	37	-83	-320	-746	-496	-336	-----	-----	-----	-----	-----	-----	-----	-----	0.653	0.339	1	Yes	0.585	0.094	0.68	Yes	1.00	**6.41**
		$U_8 - L_7$			582.07	-----	-217	108	-58	47	-285	-263	-26	-113	0.742	0.252	1.00	Yes	0.467	0.142	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.39**
		$U_9 - L_8$			692.80	-----	-335	236	-125	89	-283	-432	17	-69	0.750	0.242	1.00	Yes	0.413	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.51**
		$U_{10} - L_9$			772.73	-----	-322	198	-115	96	-34	-560	46	-19	0.764	0.233	1.00	Yes	0.420	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.89**
		$U_{11} - L_{10}$			899.35	-----	-376	305	-132	123	-44	-85	145	35	0.819	0.179	1.00	Yes	0.451	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.65**
		$U_{12} - L_{11}$			885.66	-----	-350	354	-141	150	256	163	215	115	0.807	0.185	1.00	Yes	0.444	0.102	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.09**
		$U_{13} - L_{12}$			750.17	-----	-426	389	-180	174	347	202	350	182	0.742	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.66**
		$U_{14} - L_{13}$			722.95	-----	-215	449	-29	193	381	-185	468	163	0.715	0.278	1.00	Yes	0.393	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.51**
		$U_{14} - L_{15}$			610.03	-----	-144	408	55	76	249	165	30	-20	0.721	0.276	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.95**
		$U_{15} - L_{16}$			632.38	-----	-379	353	-67	72	195	173	8	34	0.748	0.250	1.00	Yes	0.411	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.60**
		$U_{16} - L_{17}$			723.37	-----	-323	381	-53	105	98	77	-6	14	0.783	0.211	1.00	Yes	0.431	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.39**
		$U_{17} - L_{18}$			691.30	-----	-310	306	-53	104	-1	-5	-27	6	0.817	0.180	1.00	Yes	0.450	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.29**
		$U_{18} - L_{19}$			666.77	-----	-284	262	-17	106	-249	-231	-5	21	0.788	0.206	1.00	Yes	0.434	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.78**
		$U_{19} - L_{20}$			578.98	-----	-212	183	-15	68	-344	-307	0	58	0.738	0.260	1.00	Yes	0.406	0.147	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.85**
		$U_{20} - L_{21}$			419.28	-----	-120	106	-16	35	-319	-262	19	31	0.754	0.245	1.00	Yes	0.415	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.45**
		$U_{21} - L_{22}$			359.53	-----	-144	6	-9	-34	-454	-406	-559	-380	0.647	0.346	1.00	Yes	0.356	0.190	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.06**
		$U_{23} - L_{22}$			402.26	-----	-147	27	-22	-32	-164	-257	-240	-273	0.723	0.267	1.00	Yes	0.398	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.35**
		$U_{24} - L_{23}$			428.53	-----	-123	104	-8	26	-168	-204	229	141	0.771	0.223	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.96**
		$U_{25} - L_{24}$			552.06	-----	-201	147	-14	57	-47	-565	251	163	0.704	0.295	1.00	Yes	0.387	0.168	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.82**
		$U_{26} - L_{25}$			661.82	-----	-291	264	-29	102	-13	-91	287	197	0.782	0.217	1.00	Yes	0.430	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.95**
		$U_{27} - L_{26}$			658.12	-----	-291	285	-64	108	230	102	264	159	0.778	0.213	1.00	Yes	0.428	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.86**
		$U_{28} - L_{27}$			702.41	-----	-317	371	-78	125	271	178	262	179	0.761	0.234	1.00	Yes	0.418	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.03**
		$U_{29} - L_{28}$			617.64	-----	-362	332	-116	114	335	-84	304	143	0.730	0.266	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		$U_{30} - L_{29}$			599.74	-----	-158	381	8	133	264	152	403	111	0.709	0.289	1.00	Yes	0.390	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.65**
		$U_{30} - L_{31}$			735.57	-----	-197	494	19	129	280	166	124	34	0.728	0.271	1.00	Yes	0.400	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.76**
		$U_{31} - L_{32}$			770.75	-----	-449	404	-122	124	179	145	53	61	0.763	0.235	1.00	Yes	0.419	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.52**
		$U_{32} - L_{33}$			914.14	-----	-358	363	-81	141	26	32	8	28	0.833	0.158	1.00	Yes	0.458	0.087	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		$U_{33} - L_{34}$			872.07	-----	-363	268	-66	149	-343	-175	6	39	0.794	0.201	1.00	Yes	0.437	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.47**
		$U_{34} - L_{35}$			823.07	-----	-272	242	-101	90	-369	258	-193	-171	0.814	0.181	1.00	Yes	0.448	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.94**
		$U_{35} - L_{36}$			678.16	-----	-333	235	-117	88	-546	-442	-245	-186	0.735	0.260	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.92**
		$U_{36} - L_{37}$			519.44	-----	-190	105	-59	55	-332	-787	-215	-206	0.662	0.330	1.00	Yes	0.417	0.190	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.43**
		$U_{38} - L_{37}$			-----	-369.40	-104	-35	41	-99	-318	-294	-276	-297	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.196	1	Yes	0.708	0.118	0.83	Yes	1.00	**9.80**
		$U_{39} - L_{38}$			389.03	-225.25	-126	63	69	-66	-255	-478	78	8	0.700	0.299	1.00	Yes	0.385	0.165	0.55	Yes	0.537	0.231	0.77	Yes	0.477	0.161	0.64	Yes	1.00	**9.24**
		$U_{40} - L_{39}$			366.66	-----	-126	69	19	-27	-50	-594	27	-13	0.659	0.333	1.00	Yes	0.363	0.183	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.47**
		$U_{41} - L_{40}$			589.45	-----	-192	141	-12	-5	-172	-188	27	-5	0.786	0.214	1.00	Yes	0.432	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.45**
		$U_{42} - L_{41}$			649.75	-----	-345	269	-51	31	-122	-150	-5	2	0.768	0.223	1.00	Yes	0.422	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.49**
		$U_{43} - L_{42}$			777.41	-----	-391	312	-71	44	-327	-88	-18	-44	0.769	0.230	1.00	Yes	0.423	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.10**
		$U_{44} - L_{43}$			771.86	-----	-377	368	-124	105	-405	-19	34	-11	0.764	0.235	1.00	Yes	0.420	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.83**
	Structure 3	$U_0 - L_1$			654.97	-----	-369	309	-64	67	-567	-183	-137	43	0.709	0.282	1.00	Yes	0.390	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.88**
		$U_1 - L_2$			660.15	-----	-330	233	-85	52	-683	-272	35	10	0.715	0.281	1.00	Yes	0.393	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.12**
		$U_2 - L_3$			631.25	-----	-335	253	-66	38	-283	-339	-75	-172	0.746	0.251	1.00	Yes	0.410	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.95**
		$U_3 - L_4$			506.03	-----	-151	104	-15	3	-418	-397	-217	-204	0.742	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.03**
		$U_4 - L_5$			381.78	-----	-126	91	-6	-8	-508	-401	-194	-132	0.687	0.309	1.00	Yes	0.378	0.170	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.59**
		$U_5 - L_6$			321.90	-151.12	-146	-65	-5	-78	-740	-598	-780	-552	0.579	0.413	1.00	Yes	0.318	0.227	0.55	Yes	0.354	0.412	0.77	Yes	0.320	0.187	0.51	Yes	1.00	**10.75**
		$U_7 - L_6$			435.94	-----	-105	23	-23	6	-130	-273	-27	-144	0.784	0.213	1.00	Yes	0.431	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.62**
		$U_8 - L_7$			638.66	-----	-195	170	-66	46	-164	-229	-29	-86	0.779	0.215	1.00	Yes	0.490	0.121	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.00**
		$U_8 - L_9$			816.41	-----	-251	125	-77	27	-12	-460	56	-40	0.808	0.185	1.00	Yes	0.444	0.102	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.44**
		$U_{10} - L_9$			1016.90	-----	-215	246	-74	68	150	42	137	56	0.859	0.134	1.00	Yes	0.532	0.074	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.33**
		$U_{11} - L_{10}$			999.01	-----	-295	311	-101	87	459	345	307	197	0.799	0.197	1.00	Yes	0.495	0.111	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.04**
		$U_{12} - L_{11}$			937.29	-----	-15	413	-16	142	449	370	293	217	0.749	0.241	1.00	Yes	0.464	0.136	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.89**
		$U_{12} - L_{13}$			626.89	-----	-46	355	-4	107	257	195	114	92	0.741	0.249	1.00	Yes	0.408	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.61**
		$U_{13} - L_{14}$			662.16	-----	-284	290	-71	76	235	211	91	114	0.783	0.208	1.00	Yes	0.431	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.47**
		$U_{14} - L_{15}$			699.21	-----	-150	276	-31	69	45	5	37	14	0.827	0.166	1.00	Yes	0.455	0.091	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.22**
		$U_{15} - L_{16}$			598.82	-----	-93	39	-12	23	-91	-30	-50	-23	0.878	0.116	1.00	Yes	0.483	0.064	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.83**
		$U_{17} - L_{16}$			-----	-376.96	-58	-71	9	-96	-92	-263	-235	215	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.130	1	Yes	0.798	0.123	0.93	Yes	1.00	**8.30**
		$U_{18} - L_{17}$			-----	-307.88	-124	20	61	-35	-295	-433	131	244	-----	-----	-----	-----	-----	-----	-----	-----	0.709	0.287	1	Yes	0.651	0.158	0.81	Yes	1.00	**11.76**
		$U_{19} - L_{18}$			416.91	-119.05	-89	0	27	-21	-234	-462	37	-1	0.750	0.248	1.00	Yes	0.412	0.136	0.55	Yes	0.273	0.209	0.49	Yes	0.252	0.114	0.37	Yes	1.00	**6.38**
		$U_{20} - L_{19}$			614.47	-----	-78	63	-20	-1	-377	-195	31	-18	0.806	0.186	1.00	Yes	0.487	0.103	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.65**

Axial AB Operating

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 (Vehicle) 1.300 (Pedestrian) | LL Factor: 1.300 (Vehicle) 1.300 (Pedestrian)

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Upper Chord	Structure 1	U_0 - U_1	-----	-577.65	-230	184	869	-913	-167	226	674	-849	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.122	0.91	Yes	0.779	0.217	1.00	Yes	1.00	**10.80**
		U_1 - U_2	-----	-509.51	-95	133	-321	-702	-165	158	-81	-506	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.298	1	Yes	0.687	0.167	0.86	Yes	1.00	**4.75**
		U_2 - U_3	-----	-583.05	-48	409	-762	-199	-126	189	565	-616	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.206	1	Yes	0.786	0.181	0.97	Yes	1.00	**6.48**
		U_3 - U_4	554.49	-597.80	182	460	-552	-306	-243	-16	-248	-403	0.636	0.199	0.84	Yes	0.436	0.136	0.58	Yes	0.813	0.186	1	Yes	0.806	0.131	0.94	Yes	1.00	**7.36**
		U_4 - U_5	547.01	-574.20	233	438	-638	-175	-117	-19	-376	-170	0.627	0.215	0.85	Yes	0.430	0.147	0.58	Yes	0.781	0.214	1	Yes	0.774	0.152	0.93	Yes	1.00	**7.19**
		U_5 - U_6	727.47	-----	309	521	-473	331	94	136	-150	-210	0.834	0.159	1.00	Yes	0.562	0.104	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.87**
		U_6 - U_7	894.77	-----	436	210	10	48	299	356	61	-112	0.856	0.142	1.00	Yes	0.598	0.097	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.32**
		U_7 - U_8	1005.81	-----	-223	1534	-139	920	338	689	230	380	0.697	0.302	1.00	Yes	0.486	0.207	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.45**
		U_8 - U_9	802.53	-----	1591	-568	812	-254	587	50	302	267	0.658	0.339	1.00	Yes	0.450	0.231	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.01**
		U_9 - U_{10}	687.32	-----	248	288	292	-707	1	304	567	-539	0.746	0.249	1.00	Yes	0.505	0.167	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.77**
		U_{10} - U_{11}	-----	-637.60	248	-173	192	-794	45	110	227	-458	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.139	0.97	Yes	0.814	0.178	1.00	Yes	1.00	**5.35**
		U_{11} - U_{12}	-----	-916.19	139	-217	-16	-804	12	93	80	-231	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.126	1	Yes	0.860	0.133	1.00	Yes	1.00	**3.51**
		U_{12} - U_{13}	-----	-1270.16	-59	-271	-498	-599	75	3	732	-462	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.135	1	Yes	0.848	0.083	0.94	Yes	1.00	**4.22**
		U_{13} - U_{14}	-----	-1437.81	-195	-502	-550	-1106	-47	-14	-54	-279	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.164	1	Yes	0.824	0.122	0.95	Yes	1.00	**4.36**
		U_{14} - U_{15}	-----	-1426.94	-404	-291	-1057	-669	35	-277	-172	-277	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.165	1	Yes	0.818	0.117	0.94	Yes	1.00	**4.29**
		U_{15} - U_{16}	-----	-1473.13	-199	-465	-733	-770	-110	-417	-318	-281	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.141	1	Yes	0.845	0.085	0.93	Yes	1.00	**4.89**
		U_{16} - U_{17}	-----	-1441.18	-409	-225	-1015	-422	-268	-362	-196	-207	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.161	1	Yes	0.826	0.112	0.94	Yes	1.00	**5.86**
		U_{17} - U_{18}	-----	-1052.82	-265	-52	-655	10	-122	73	-132	-13	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.156	1	Yes	0.824	0.107	0.94	Yes	1.00	**4.02**
		U_{18} - U_{19}	-----	-705.67	-254	16	-653	115	370	-140	197	-239	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.195	1	Yes	0.794	0.131	0.93	Yes	1.00	**4.09**
		U_{19} - U_{20}	-----	-604.57	-238	-64	-1069	-192	-29	-115	-129	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.686	0.311	1	Yes	0.680	0.215	0.90	Yes	1.00	**11.07**
	Structure 2	U_0 - U_1	-----	-543.51	728	-418	2076	-1761	395	-132	1279	-511	-----	-----	-----	-----	-----	-----	-----	-----	0.646	0.243	0.89	Yes	0.642	0.352	1.00	Yes	1.00	**10.18**
		U_1 - U_2	-----	-850.81	-150	-280	-242	-919	-39	59	267	-350	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.164	1	Yes	0.821	0.140	0.97	Yes	1.00	**5.21**
		U_2 - U_3	-----	-1187.31	-146	-384	-108	-1122	-34	-34	135	-608	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.143	1	Yes	0.843	0.114	0.96	Yes	1.00	**4.57**
		U_3 - U_4	-----	-1430.88	-517	-500	-896	-1287	-122	-25	-8	-344	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.176	1	Yes	0.815	0.115	0.93	Yes	1.00	**3.91**
		U_4 - U_5	-----	-1554.05	-566	-512	-1103	-1382	-129	-71	10	-616	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.188	1	Yes	0.798	0.115	0.92	Yes	1.00	**3.80**
		U_5 - U_6	-----	-1613.77	-546	51	-1262	-838	-197	-38	-220	-440	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.157	1	Yes	0.829	0.105	0.94	Yes	1.00	**3.84**
		U_6 - U_7	-----	-1403.72	-298	-196	-1074	-1230	-170	-88	-188	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.188	1	Yes	0.799	0.110	0.91	Yes	1.00	**3.51**
		U_7 - U_8	-----	-1406.52	-334	-180	-1391	-868	-79	-174	-262	-379	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.189	1	Yes	0.801	0.124	0.93	Yes	1.00	**3.55**
		U_8 - U_9	-----	-1230.19	-323	243	-1215	-312	-15	-193	-251	-309	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.153	1	Yes	0.834	0.129	0.97	Yes	1.00	**4.13**
		U_9 - U_{10}	-----	-950.35	-40	582	-1240	-26	-131	-245	-483	-487	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.168	1	Yes	0.820	0.151	0.98	Yes	1.00	**5.28**
		U_{10} - U_{11}	879.63	-626.18	396	648	-1110	-43	-216	-112	-822	-357	0.743	0.257	1.00	Yes	0.506	0.169	0.68	Yes	0.626	0.214	0.84	Yes	0.622	0.157	0.78	Yes	1.00	**7.39**
		U_{11} - U_{12}	988.65	-----	252	685	-491	255	24	35	-515	-515	0.835	0.159	1.00	Yes	0.561	0.106	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.14**
		U_{12} - U_{13}	1362.47	-----	179	-5	-243	-184	-250	474	-291	-288	0.920	0.076	1.00	Yes	0.656	0.053	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.46**
		U_{13} - U_{14}	1289.40	-----	-564	3148	-534	2228	412	981	118	445	0.634	0.358	1.00	Yes	0.449	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.40**
		U_{14} - U_{15}	1298.36	-----	3253	-426	1846	-226	806	444	562	698	0.638	0.356	1.00	Yes	0.452	0.234	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.50**
		U_{15} - U_{16}	1439.96	-----	62	-640	-16	18	269	-294	428	650	0.871	0.128	1.00	Yes	0.619	0.087	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.81**
		U_{16} - U_{17}	1176.59	-----	605	318	581	-563	-86	332	264	-506	0.867	0.129	1.00	Yes	0.577	0.085	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.16**
		U_{17} - U_{18}	827.70	-----	432	340	362	-696	-104	284	147	-197	0.831	0.160	1.00	Yes	0.553	0.106	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.98**
		U_{18} - U_{19}	776.35	-664.29	558	316	197	-746	-58	183	287	-596	0.779	0.214	1.00	Yes	0.511	0.137	0.65	Yes	0.789	0.139	0.93	Yes	0.785	0.127	0.92	Yes	1.00	**7.07**
		U_{19} - U_{20}	396.24	-724.52	275	174	-212	-929	-108	127	-51	-385	0.372	0.201	0.58	Yes	0.246	0.132	0.38	Yes	0.804	0.188	1	Yes	0.799	0.149	0.95	Yes	1.00	**4.59**
		U_{20} - U_{21}	-----	-899.52	158	82	-768	-516	-69	49	584	-511	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.172	1	Yes	0.821	0.111	0.94	Yes	1.00	**5.00**
		U_{21} - U_{22}	-----	-879.65	27	82	-580	-803	-191	-54	-92	-248	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.184	1	Yes	0.803	0.116	0.92	Yes	1.00	**4.82**
		U_{22} - U_{23}	-----	-869.22	87	17	-874	-643	-92	-139	-194	-185	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.195	1	Yes	0.793	0.127	0.92	Yes	1.00	**4.76**
		U_{23} - U_{24}	-----	-889.74	144	205	-871	-300	9	-47	-359	-153	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.178	1	Yes	0.812	0.126	0.94	Yes	1.00	**6.07**
		U_{24} - U_{25}	669.94	-783.41	351	402	-663	-110	21	-41	-317	-90	0.628	0.149	0.78	Yes	0.416	0.098	0.52	Yes	0.870	0.122	1	Yes	0.864	0.106	0.98	Yes	1.00	**7.71**
		U_{25} - U_{26}	800.00	-----	358	548	-756	445	30	-9	-438	-275	0.803	0.193	1.00	Yes	0.527	0.123	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.13**
		U_{26} - U_{27}	835.45	-----	390	414	-517	318	21	62	-487	-158	0.839	0.159	1.00	Yes	0.558	0.105	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.98**
		U_{27} - U_{28}	1101.19	-----	-320	1147	-336	434	-197	-36	-197	-370	0.811	0.183	1.00	Yes	0.540	0.121	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.40**
		U_{28} - U_{29}	1515.22	-----	202	80	119	-29	-121	638	124	226	0.916	0.077	1.00	Yes	0.652	0.054	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.00**
		U_{29} - U_{30}	1294.56	-----	-327	3092	-8	1717	527	1055	809	1032	0.637	0.358	1.00	Yes	0.451	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.31**
		U_{30} - U_{31}	1257.73	-----	3417	-940	1923	-530	770	101	874	846	0.618	0.376	1.00	Yes	0.438	0.247	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.86**
		U_{31} - U_{32}	1315.36	-----	95	415	-162	-238	198	401	605	621	0.888	0.111	1.00	Yes	0.633	0.077	0.72	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.38**
		U_{32} - U_{33}	950.00	-----	635	199	440	-874	15	242	326	-600	0.802	0.196	1.00	Yes	0.539	0.131	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.45**
		U_{33} - U_{34}	697.85	-844.34	523	214	-25	-1098	-18	228	286	-314	0.589	0.193	0.79	Yes	0.401	0.125	0.53	Yes	0.844	0.142	0.99	Yes	0.839	0.155	1.00	Yes	1.00	**6.68**
		U_{34} - U_{35}	-----	-1001.32	408	-174	-83	-1067	46	47	247	-453	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.126	1	Yes	0.864	0.130	1.00	Yes	1.00	**4.23**
		U_{35} - U_{36}	-----	-1260.34	112	-453	-319	-1088	-15	92	77	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.129	1	Yes	0.855	0.116	0.98	Yes	1.00	**3.47**
		U_{36} - U_{37}	-----	-1447.49	-283	-306	-881	-1295	-18	-118	11	-257	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.169	1	Yes	0.824	0.115	0.94	Yes	1.00	**3.23**
		U_{37} - U_{38}	-----	-1431.56	-195	-419	-1187	-1067	-94	-194	-171	-341	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.178	1	Yes	0.815	0.106	0.93	Yes	1.00	**3.16**
		U_{38} - U_{39}	-----	-1641.35	-125	-615	-940	-1214	13	-201	-228	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.148	1	Yes	0.843	0.101	0.95	Yes	1.00	**3.70**
		U_{39} - U_{40}	-----	-1585.12	-579	-559	-1415	-929	23	-62	-287	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.172	1	Yes	0.814	0.117	0.94	Yes	1.00	**3.88**
		U_{40} - U_{41}	-----	-1464.43	-511	-513	-1171	-820	195	-135	-109	-191	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.154	1	Yes	0.834	0.104	0.94	Yes	1.00	**4.24**
		U_{41} - U_{42}	-----	-1222.01	-396	-136	-1130	-31	71	-23	-186	-148	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.122	1	Yes	0.867	0.115	0.99	Yes	1.00	**5.14**
		U_{42} - U_{43}	-----	-888.96	-292	-47	-905	72	172	-221	-181	-234	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.129	1	Yes	0.858	0.137	1.00	Yes	1.00	**6.13**
		U_{43} - U_{44}	-----	-652.56	-119	-267	-1329	7	-128	-128	-112	108	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.216	1	Yes	0.771	0.226	1.00	Yes	1.00	**12.78**
	Structure 3	U_0 - U_1	-----	-538.19	631	-342	1944	-1482	286	-53	1329	-850	-----	-----	-----	-----	-----	-----	-----	-----	0.611	0.292	0.91	Yes	0.606	0.391	1.00	Yes	1.00	**12.44**
		U_1 - U_2	-----	-732.11	-81	-222	-68	-700	-21	12	190	-337	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.163	1	Yes	0.824	0.141	0.97	Yes	1.00	**5.02**
		U_2 - U_3	-----	-1083.38	-53	-238	35	-595	-29	-48	142	-688	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.132	1	Yes	0.848	0.097	0.95	Yes	1.00	**4.75**
		U_3 - U_4	-----	-1365.10	-219	-372	-455	-1268	-101	-37	-213	-555	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.199	1	Yes	0.783	0.140	0.93	Yes	1.00	**4.39**
		U_4 - U_5	-----	-1428.46	-439	-144	-1074	-472	-89	-49	533	-633	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.162	1	Yes	0.819	0.118	0.94	Yes	1.00	**4.37**
		U_5 - U_6	-----	-1412.58	-255	-373	-618	-1060	-179	-149	-148	-361	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.176	1	Yes	0.810	0.117	0.93	Yes	1.00	**4.65**
		U_6 - U_7	-----	-1401.00	-493	-157	-1230	-513	-121	-300	-261	-365	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.182	1	Yes	0.803	0.136	0.94	Yes	1.00	**4.60**
		U_7 - U_8	-----	-1216.88	-254	-10	-701	-206	-119	-336	-368	-486	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.168	1	Yes	0.813	0.097	0.91	Yes	1.00	**3.81**
		U_8 - U_9	-----	-845.45	-170	200	-657	82	-226	-212	-402	-262	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.191	1	Yes	0.793	0.109	0.91	Yes	1.00	**3.71**
		U_9 - U_{10}	-----	-551.82	-84	361	-922	314	-20	-42	-200	-294	-----	-----	-----	-----	-----	-----	-----	-----	0.711	0.288	1	Yes	0.704	0.206	0.92	Yes	1.00	**6.08**
		U_{10} - U_{11}	755.72	-----	355	246	-384	315	80	244	-572	-190	0.820	0.178	1.00	Yes	0.555	0.119	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.18**
		U_{11} - U_{12}	827.99	-----	-451	1461	-164	758	-29	507	385	545	0.678	0.312	1.00	Yes	0.464	0.212	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.50**
		U_{12} - U_{13}	966.63	-----	1836	-415	897	-153	241	112	395	489	0.670	0.328	1.00	Yes	0.467	0.224	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.95**
		U_{13} - U_{14}	853.93	-----	218	362	13	-462	-97	372	-37	-562	0.817	0.175	1.00	Yes	0.571	0.121	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.78**
		U_{14} - U_{15}	638.10	-----	455	222	26	-365	-54	260	901	-608	0.731	0.260	1.00	Yes	0.493	0.173	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.99**
		U_{15} - U_{16}	373.20	-628.74	311	161	-237	-589	-72	226	46	5	0.428	0.178	0.61	Yes	0.294	0.122	0.42	Yes	0.856	0.136	1	Yes	0.848	0.140	0.99	Yes	1.00	**6.29**
		U_{16} - U_{17}	376.97	-647.63	380	67	-405	-530	196	-57	76	-140	0.432	0.159	0.60	Yes	0.297	0.109	0.41	Yes	0.881	0.092	0.98	Yes	0.873	0.126	1.00	Yes	1.00	**6.44**
		U_{17} - U_{18}	-----	-644.54	258	-164	-410	-529	76	49	-48	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.877	0.090	0.97	Yes	0.869	0.126	1.00	Yes	1.00	**5.35**
		U_{18} - U_{19}	-----	-584.93	29	-68	-641	-153	230	-196	101	-286	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.200	1	Yes	0.789	0.152	0.95	Yes	1.00	**5.24**
		U_{19} - U_{20}	-----	-606.75	125	-328	-585	-550	-143	-111	-168	-58	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.168	1	Yes	0.818	0.139	0.96	Yes	1.00	**10.45**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
South Truss - Lower Chord	Structure 1	L_0 - L_1	216.60	-185.83	5	-106	578	-989	139	513	-460	-1689	0.331	0.659	1.00	Yes	0.195	0.393	0.59	Yes	0.337	0.532	0.87	Yes	0.335	0.297	0.64	Yes	1.00	**20.68**
		L_1 - L_2	377.66	-----	87	-795	-20	62	-813	464	396	-180	0.578	0.413	1.00	Yes	0.353	0.269	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.57**
		L_2 - L_3	639.89	-----	-732	-509	-10	110	209	-513	-194	133	0.736	0.259	1.00	Yes	0.426	0.154	0.58	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.03**
		L_3 - L_4	661.15	-399.30	-533	-348	48	438	-633	283	345	-279	0.761	0.231	1.00	Yes	0.452	0.145	0.60	Yes	0.546	0.147	0.7	Yes	0.540	0.129	0.67	Yes	1.00	**7.18**
		L_4 - L_5	-----	-573.18	-340	329	111	467	223	47	-86	218	-----	-----	-----	-----	-----	-----	-----	-----	0.881	0.115	1	Yes	0.873	0.124	1.00	Yes	1.00	**4.01**
		L_5 - L_6	-----	-748.04	-73	358	126	589	79	-192	189	-208	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.122	1	Yes	0.863	0.130	1.00	Yes	1.00	**3.75**
		L_6 - L_7	-----	-1185.34	-71	101	71	56	-129	286	-114	223	-----	-----	-----	-----	-----	-----	-----	-----	0.965	0.025	1	Yes	0.954	0.016	0.98	Yes	1.00	**5.51**
		L_7 - L_8	-----	-1232.38	-52	770	-78	1322	294	267	369	468	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.202	1	Yes	0.781	0.175	0.96	Yes	1.00	**2.83**
		L_8 - L_9	-----	-1251.23	705	-34	1225	-64	243	352	484	292	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.193	1	Yes	0.792	0.162	0.96	Yes	1.00	**3.45**
		L_9 - L_{10}	-----	-1099.52	321	-226	450	-366	404	-169	109	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.895	0.104	1	Yes	0.885	0.071	0.96	Yes	1.00	**4.98**
		L_{10} - L_{11}	-----	-508.36	191	-269	499	-177	-240	136	-329	158	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.215	1	Yes	0.775	0.132	0.91	Yes	1.00	**6.17**
		L_{11} - L_{12}	517.93	-----	327	-852	346	-238	-566	503	132	-87	0.671	0.325	1.00	Yes	0.402	0.209	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.76**
		L_{12} - L_{13}	1062.77	-----	-428	-549	46	-161	-49	-507	-157	122	0.839	0.156	1.00	Yes	0.536	0.095	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.37**
		L_{13} - L_{14}	1322.33	-----	-106	-1235	181	-527	-547	454	147	18	0.778	0.216	1.00	Yes	0.504	0.133	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.28**
		L_{14} - L_{15}	1611.21	-----	-1491	-409	-567	-152	453	17	-148	164	0.787	0.211	1.00	Yes	0.512	0.129	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.39**
		L_{15} - L_{16}	1723.35	-----	-922	-1035	-303	-362	-2	332	116	-133	0.842	0.148	1.00	Yes	0.540	0.087	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.83**
		L_{16} - L_{17}	1290.99	-----	-1077	118	-416	55	232	-139	-123	175	0.816	0.179	1.00	Yes	0.530	0.110	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.36**
		L_{17} - L_{18}	1018.19	-----	-384	-44	-233	35	-113	-305	106	-102	0.887	0.113	1.00	Yes	0.568	0.069	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.42**
		L_{18} - L_{19}	516.51	-----	-480	233	-384	287	-148	278	-287	230	0.790	0.204	1.00	Yes	0.535	0.129	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.23**
		L_{19} - L_{20}	514.35	-302.07	-382	100	-416	280	390	87	266	60	0.787	0.206	1.00	Yes	0.480	0.135	0.62	Yes	0.549	0.126	0.68	Yes	0.544	0.125	0.67	Yes	1.00	**10.78**
	Structure 2	L_0 - L_1	-----	-437.73	192	-539	521	-1739	117	407	-284	-987	-----	-----	-----	-----	-----	-----	-----	-----	0.629	0.368	1	Yes	0.625	0.354	0.98	Yes	1.00	**15.03**
		L_1 - L_2	629.29	-----	309	-756	206	-303	423	-460	110	141	0.764	0.229	1.00	Yes	0.455	0.145	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.47**
		L_2 - L_3	1041.96	-----	93	-972	-77	-213	294	-124	-80	143	0.821	0.172	1.00	Yes	0.538	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.02**
		L_3 - L_4	1348.05	-----	-7	-1383	-27	-450	-396	485	189	-32	0.792	0.201	1.00	Yes	0.533	0.125	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.11**
		L_4 - L_5	1803.65	-----	-1089	-1234	-416	-347	504	83	-96	157	0.841	0.151	1.00	Yes	0.557	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.00**
		L_5 - L_6	1885.64	-----	-725	-1748	-204	-419	-140	471	197	-96	0.809	0.184	1.00	Yes	0.543	0.113	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.44**
		L_6 - L_7	1898.21	-----	-1813	-1377	-525	-173	362	-562	-160	221	0.803	0.194	1.00	Yes	0.534	0.115	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.93**
		L_7 - L_8	1386.56	-----	-1338	-407	-290	413	-596	334	226	-137	0.795	0.197	1.00	Yes	0.522	0.118	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.66**
		L_8 - L_9	1149.50	-----	-1106	341	-56	616	391	-145	-83	180	0.804	0.186	1.00	Yes	0.542	0.117	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.72**
		L_9 - L_{10}	651.13	-794.89	-1022	227	-115	852	-132	-83	136	-176	0.581	0.185	0.77	Yes	0.338	0.115	0.46	Yes	0.840	0.091	0.94	Yes	0.835	0.163	1.00	Yes	1.00	**6.06**
		L_{10} - L_{11}	-----	-762.47	-569	525	28	565	-12	-34	-88	93	-----	-----	-----	-----	-----	-----	-----	-----	0.902	0.067	0.97	Yes	0.896	0.100	1.00	Yes	1.00	**3.71**
		L_{11} - L_{12}	-----	-1023.43	-370	660	-73	1100	-166	-579	89	-335	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.145	1	Yes	0.839	0.150	0.99	Yes	1.00	**3.79**
		L_{12} - L_{13}	-----	-1496.75	-418	-358	-136	-707	-520	-88	-207	54	-----	-----	-----	-----	-----	-----	-----	-----	0.904	0.092	1	Yes	0.897	0.070	0.97	Yes	1.00	**4.66**
		L_{13} - L_{14}	-----	-1507.88	-670	1925	-949	2717	115	230	189	372	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.179	0.95	Yes	0.759	0.237	1.00	Yes	1.00	**3.18**
		L_{14} - L_{15}	-----	-1509.12	1629	-558	2674	-892	321	289	377	222	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.178	0.95	Yes	0.759	0.234	1.00	Yes	1.00	**2.81**
		L_{15} - L_{16}	-----	-1530.95	-333	-89	-688	-245	234	-277	126	28	-----	-----	-----	-----	-----	-----	-----	-----	0.923	0.073	1	Yes	0.916	0.068	0.99	Yes	1.00	**4.43**
		L_{16} - L_{17}	-----	-1161.09	723	-148	1210	-353	-490	-29	-332	-591	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.138	1	Yes	0.846	0.149	1.00	Yes	1.00	**4.71**
		L_{17} - L_{18}	-----	-847.12	450	-186	649	-250	122	-177	-431	277	-----	-----	-----	-----	-----	-----	-----	-----	0.896	0.078	0.98	Yes	0.890	0.104	1.00	Yes	1.00	**5.42**
		L_{18} - L_{19}	-----	-648.58	299	-210	683	124	-205	151	-239	38	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.107	0.98	Yes	0.864	0.132	1.00	Yes	1.00	**6.03**
		L_{19} - L_{20}	535.72	-583.19	283	-1154	505	286	-555	667	179	-218	0.607	0.325	0.94	Yes	0.359	0.204	0.57	Yes	0.782	0.114	0.9	Yes	0.777	0.223	1.00	Yes	1.00	**7.35**
		L_{20} - L_{21}	969.51	-----	-810	-1001	439	74	7	-719	-189	42	0.773	0.223	1.00	Yes	0.507	0.137	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.99**
		L_{21} - L_{22}	940.69	-----	-588	-1294	180	11	-481	445	143	-188	0.750	0.241	1.00	Yes	0.502	0.152	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.81**
		L_{22} - L_{23}	917.16	-----	-1500	-382	-180	159	450	-53	-34	213	0.731	0.267	1.00	Yes	0.489	0.168	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.63**
		L_{23} - L_{24}	1033.22	-774.00	-876	-387	103	566	-140	442	207	-318	0.824	0.175	1.00	Yes	0.540	0.106	0.65	Yes	0.731	0.116	0.85	Yes	0.726	0.128	0.86	Yes	1.00	**10.72**
		L_{24} - L_{25}	-----	-684.32	-448	179	213	423	-88	81	-153	108	-----	-----	-----	-----	-----	-----	-----	-----	0.918	0.065	0.99	Yes	0.912	0.086	1.00	Yes	1.00	**7.41**
		L_{25} - L_{26}	-----	-653.97	-269	186	28	643	-16	-127	83	-341	-----	-----	-----	-----	-----	-----	-----	-----	0.877	0.111	0.99	Yes	0.872	0.124	1.00	Yes	1.00	**5.15**
		L_{26} - L_{27}	-----	-837.24	-333	439	-211	738	-102	37	124	64	-----	-----	-----	-----	-----	-----	-----	-----	0.885	0.087	0.98	Yes	0.879	0.118	1.00	Yes	1.00	**4.81**
		L_{27} - L_{28}	-----	-1125.82	-220	741	-213	1439	57	-201	166	-45	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.141	0.97	Yes	0.820	0.177	1.00	Yes	1.00	**4.08**
		L_{28} - L_{29}	-----	-1514.14	-250	-498	57	-929	-146	26	20	159	-----	-----	-----	-----	-----	-----	-----	-----	0.913	0.083	1	Yes	0.906	0.092	1.00	Yes	1.00	**4.87**
		L_{29} - L_{30}	-----	-1496.68	-707	1890	-1047	2742	112	93	224	368	-----	-----	-----	-----	-----	-----	-----	-----	0.760	0.176	0.94	Yes	0.753	0.239	1.00	Yes	1.00	**3.43**
		L_{30} - L_{31}	-----	-1537.24	1727	-525	2519	-847	515	409	244	57	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.181	0.97	Yes	0.774	0.220	1.00	Yes	1.00	**2.22**
		L_{31} - L_{32}	-----	-1514.60	-153	-354	-588	-325	351	-264	-332	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.914	0.079	1	Yes	0.906	0.058	0.97	Yes	1.00	**3.76**
		L_{32} - L_{33}	-----	-1047.69	574	-340	1028	-321	-429	48	84	-9	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.113	0.98	Yes	0.859	0.140	1.00	Yes	1.00	**3.40**
		L_{33} - L_{34}	-----	-760.85	421	-472	587	8	137	-35	90	-135	-----	-----	-----	-----	-----	-----	-----	-----	0.900	0.073	0.98	Yes	0.894	0.103	1.00	Yes	1.00	**4.36**
		L_{34} - L_{35}	651.92	-809.84	-8	-636	876	-78	-212	343	-208	82	0.582	0.181	0.77	Yes	0.339	0.112	0.46	Yes	0.856	0.085	0.95	Yes	0.850	0.140	1.00	Yes	1.00	**7.92**
		L_{35} - L_{36}	1081.04	-----	255	-1236	628	-100	-510	729	160	-135	0.756	0.235	1.00	Yes	0.509	0.149	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.92**
		L_{36} - L_{37}	1374.72	-----	-525	-1472	323	-244	499	-485	-198	148	0.788	0.203	1.00	Yes	0.518	0.121	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.18**
		L_{37} - L_{38}	1821.70	-----	-1609	-1879	-296	-616	-1019	534	117	-181	0.771	0.228	1.00	Yes	0.512	0.137	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.64**
		L_{38} - L_{39}	1841.34	-----	-1859	-698	-565	-213	635	139	-106	174	0.790	0.205	1.00	Yes	0.530	0.126	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.13**
		L_{39} - L_{40}	1811.48	-----	-1382	-952	-404	-298	130	323	135	-116	0.845	0.152	1.00	Yes	0.559	0.091	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.58**
		L_{40} - L_{41}	1384.28	-----	-1370	61	-423	23	203	-168	-26	302	0.813	0.184	1.00	Yes	0.548	0.115	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.50**
		L_{41} - L_{42}	1036.45	-----	-1021	204	-231	50	-210	-74	313	141	0.817	0.181	1.00	Yes	0.536	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.79**
		L_{42} - L_{43}	590.40	-----	-811	316	-244	205	-682	33	163	358	0.717	0.277	1.00	Yes	0.427	0.174	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.36**
		L_{43} - L_{44}	-----	-465.80	-942	241	-530	169	-340	-99	1149	335	-----	-----	-----	-----	-----	-----	-----	-----	0.670	0.321	1	Yes	0.666	0.192	0.86	Yes	1.00	**24.90**
	Structure 3	L_0 - L_1	-----	-449.28	102	-280	330	-611	40	184	-42	-191	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.133	0.95	Yes	0.809	0.183	1.00	Yes	1.00	**5.88**
		L_1 - L_2	519.73	-----	223	-462	322	-391	214	-200	272	24	0.795	0.195	1.00	Yes	0.538	0.124	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.50**
		L_2 - L_3	1017.93	-----	-162	-370	52	-226	-282	172	-16	163	0.886	0.107	1.00	Yes	0.567	0.065	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.10**
		L_3 - L_4	1147.64	-----	119	-1327	50	-430	-343	826	141	61	0.726	0.268	1.00	Yes	0.471	0.167	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.22**
		L_4 - L_5	1629.58	-----	-1275	-922	-378	-263	219	-623	-27	228	0.796	0.197	1.00	Yes	0.511	0.117	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.03**
		L_5 - L_6	1591.26	-----	-560	-1405	-141	-460	-422	618	254	-30	0.777	0.213	1.00	Yes	0.505	0.130	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.25**
		L_6 - L_7	1299.13	-----	-1387	158	-489	236	433	-107	-51	263	0.764	0.227	1.00	Yes	0.495	0.139	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.29**
		L_7 - L_8	1110.47	-----	-539	-181	-89	187	-144	146	145	-198	0.876	0.119	1.00	Yes	0.561	0.071	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.79**
		L_8 - L_9	557.71	-----	-862	415	-143	442	282	-281	-128	194	0.722	0.278	1.00	Yes	0.433	0.181	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.05**
		L_9 - L_{10}	-----	-564.43	-306	210	-61	519	-139	-407	199	-87	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.101	0.97	Yes	0.860	0.137	1.00	Yes	1.00	**7.43**
		L_{10} - L_{11}	-----	-1176.50	-260	290	-230	320	-261	151	-92	-33	-----	-----	-----	-----	-----	-----	-----	-----	0.958	0.026	0.99	Yes	0.947	0.050	1.00	Yes	1.00	**6.06**
		L_{11} - L_{12}	-----	-1273.65	-64	810	-98	1358	228	138	129	68	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.182	1	Yes	0.807	0.180	0.99	Yes	1.00	**3.28**
		L_{12} - L_{13}	-----	-1144.05	762	-35	1300	-65	5	176	-21	27	-----	-----	-----	-----	-----	-----	-----	-----	0.734	0.260	1	Yes	0.725	0.172	0.90	Yes	1.00	**2.42**
		L_{13} - L_{14}	-----	-1150.49	169	-96	206	-242	341	-52	-53	33	-----	-----	-----	-----	-----	-----	-----	-----	0.937	0.057	1	Yes	0.926	0.038	0.97	Yes	1.00	**4.97**
		L_{14} - L_{15}	-----	-730.30	149	-286	577	110	-182	-606	-260	74	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.145	1	Yes	0.843	0.128	0.98	Yes	1.00	**5.16**
		L_{15} - L_{16}	-----	-560.81	175	-511	483	146	-657	530	259	-223	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.134	1	Yes	0.854	0.135	0.99	Yes	1.00	**5.93**
		L_{16} - L_{17}	715.00	-----	-565	-527	325	-53	243	162	-171	196	0.823	0.176	1.00	Yes	0.489	0.112	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.26**
		L_{17} - L_{18}	707.85	-----	-656	-567	46	-95	11	-56	117	-119	0.814	0.178	1.00	Yes	0.471	0.107	0.58	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.91**
		L_{18} - L_{19}	464.76	-----	-724	2	29	-31	-11	290	-92	212	0.711	0.279	1.00	Yes	0.434	0.186	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.20**
		L_{19} - L_{20}	408.40	-145.84	-162	-113	-225	-14	-12	-3	1422	386	0.625	0.373	1.00	Yes	0.368	0.218	0.59	Yes	0.265	0.410	0.68	Yes	0.263	0.068	0.34	Yes	1.00	**49.13**

Axial AB Operating

Operating Loads - HS20 Lane | **Calc:** BKC **Date:** 10/28/2009 | **Check:** NRF **Date:** 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression													
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Verticals	Structure 1	$U_0 - L_0$			-----	-299.72	-8	42	-57	152	231	74	-783	-251	-----	-----	-----	-----	-----	-----	-----	-----	0.669	0.325	1	Yes	0.634	0.195	0.83	Yes	1.00	**2.57**
		$U_1 - L_1$			-----	-305.29	43	-35	-234	226	609	209	-935	-386	-----	-----	-----	-----	-----	-----	-----	-----	0.667	0.325	1	Yes	0.646	0.300	0.95	Yes	1.00	**5.28**
		$U_2 - L_2$			68.46	-133.41	66	-71	-28	59	747	241	-2697	-814	0.123	0.872	1.00	Yes	0.068	0.479	0.55	Yes	0.292	0.668	0.96	Yes	0.282	0.091	0.38	Yes	1.00	**3.98**
		$U_3 - L_3$			234.83	-----	240	-249	27	-14	-871	-741	-685	-154	0.422	0.571	1.00	Yes	0.232	0.314	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.47**
		$U_4 - L_4$			-----	-136.71	85	-86	119	-121	1109	563	-2403	-760	-----	-----	-----	-----	-----	-----	-----	-----	0.301	0.697	1	Yes	0.289	0.155	0.45	Yes	1.00	**6.23**
		$U_5 - L_5$			-----	-362.31	79	-85	181	-199	1101	629	153	212	-----	-----	-----	-----	-----	-----	-----	-----	0.656	0.339	1	Yes	0.625	0.202	0.83	Yes	1.00	**4.45**
		$U_6 - L_6$			-----	-424.20	78	-66	171	-179	1457	725	-1343	-319	-----	-----	-----	-----	-----	-----	-----	-----	0.642	0.351	1	Yes	0.608	0.157	0.77	Yes	1.00	**4.01**
		$U_7 - L_7$			-----	-331.08	124	-139	235	-258	884	226	487	98	-----	-----	-----	-----	-----	-----	-----	-----	0.553	0.441	1	Yes	0.511	0.254	0.77	Yes	1.00	**2.01**
		$U_8 - L_8$			-----	-1264.66	-107	122	-120	138	856	135	-352	-295	-----	-----	-----	-----	-----	-----	-----	-----	0.913	0.081	1	Yes	0.877	0.026	0.91	Yes	1.00	**4.26**
		$U_9 - L_9$			-----	-659.96	-230	262	-407	451	586	221	-448	-123	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.175	0.97	Yes	0.745	0.251	1.00	Yes	1.00	**3.44**
		$U_{10} - L_{10}$			-----	-780.91	-158	155	-347	360	598	275	-736	-270	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.182	1	Yes	0.771	0.187	0.96	Yes	1.00	**5.05**
		$U_{11} - L_{11}$			-----	-660.25	-166	217	-379	479	622	359	-719	-115	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.191	0.99	Yes	0.768	0.222	1.00	Yes	1.00	**4.82**
		$U_{12} - L_{12}$			-----	-422.83	-137	139	-210	226	664	369	-1955	-529	-----	-----	-----	-----	-----	-----	-----	-----	0.611	0.382	1	Yes	0.580	0.193	0.78	Yes	1.00	**3.05**
		$U_{13} - L_{13}$			-----	-312.97	-85	102	-171	198	544	252	-117	152	-----	-----	-----	-----	-----	-----	-----	-----	0.633	0.364	1	Yes	0.600	0.226	0.83	Yes	1.00	**3.99**
		$U_{14} - L_{14}$			-----	-134.02	-41	48	-50	59	636	193	-2637	-447	-----	-----	-----	-----	-----	-----	-----	-----	0.299	0.693	1	Yes	0.284	0.075	0.36	Yes	1.00	**5.77**
		$U_{15} - L_{15}$			-----	-257.75	-31	27	177	-202	456	96	-1319	-418	-----	-----	-----	-----	-----	-----	-----	-----	0.578	0.421	1	Yes	0.545	0.258	0.81	Yes	1.00	**9.04**
		$U_{16} - L_{16}$			-----	-320.26	37	-42	240	-251	484	106	-679	-202	-----	-----	-----	-----	-----	-----	-----	-----	0.722	0.277	1	Yes	0.678	0.321	1.00	Yes	1.00	**7.13**
		$U_{17} - L_{17}$			-----	-417.68	77	-91	198	-219	504	197	-102	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.211	1	Yes	0.721	0.222	0.95	Yes	1.00	**4.43**
		$U_{18} - L_{18}$			-----	-457.55	186	-192	370	-383	687	177	465	134	-----	-----	-----	-----	-----	-----	-----	-----	0.670	0.321	1	Yes	0.636	0.217	0.86	Yes	1.00	**3.21**
		$U_{19} - L_{19}$			-----	-562.10	194	-207	403	-428	600	116	565	90	-----	-----	-----	-----	-----	-----	-----	-----	0.702	0.289	1	Yes	0.654	0.199	0.86	Yes	1.00	**3.79**
		$U_{20} - L_{20}$			-----	-501.29	244	-294	406	-471	458	60	377	50	-----	-----	-----	-----	-----	-----	-----	-----	0.663	0.329	1	Yes	0.583	0.218	0.81	Yes	1.00	**2.66**
	Structure 2	$U_0 - L_0$			-----	-642.05	-155	257	-256	443	59	10	-862	-146	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.228	1	Yes	0.688	0.188	0.88	Yes	1.00	**2.70**
		$U_1 - L_1$			-----	-713.69	-187	195	-548	550	618	150	-437	-110	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.145	0.97	Yes	0.765	0.233	1.00	Yes	1.00	**4.56**
		$U_2 - L_2$			-----	-594.69	-136	151	-431	456	618	266	-382	161	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.175	0.98	Yes	0.758	0.233	1.00	Yes	1.00	**4.12**
		$U_3 - L_3$			-----	-459.47	-65	76	-207	228	546	254	-230	136	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.211	1	Yes	0.721	0.207	0.93	Yes	1.00	**3.47**
		$U_4 - L_4$			-----	-317.70	-3	14	-182	196	574	224	-611	10	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.271	1	Yes	0.672	0.250	0.93	Yes	1.00	**4.65**
		$U_5 - L_5$			-----	-255.54	89	-84	-135	168	579	168	-1149	-161	-----	-----	-----	-----	-----	-----	-----	-----	0.577	0.418	1	Yes	0.541	0.214	0.76	Yes	1.00	**7.17**
		$U_6 - L_6$			196.84	-----	119	-132	-53	58	598	162	-1634	-366	0.354	0.641	1.00	Yes	0.195	0.353	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.29**
		$U_7 - L_7$			-----	-185.25	97	-113	117	-133	659	147	-2459	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.418	0.573	1	Yes	0.392	0.170	0.57	Yes	1.00	**3.94**
		$U_8 - L_8$			-----	-468.70	167	-186	346	-369	196	-164	-602	-240	-----	-----	-----	-----	-----	-----	-----	-----	0.680	0.179	0.86	Yes	0.675	0.323	1.00	Yes	1.00	**4.66**
		$U_9 - L_9$			-----	-602.27	279	-283	464	-485	931	486	-1998	-473	-----	-----	-----	-----	-----	-----	-----	-----	0.670	0.321	1	Yes	0.645	0.206	0.86	Yes	1.00	**3.63**
		$U_{10} - L_{10}$			-----	-755.77	236	-235	519	-524	1160	717	-219	93	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.252	1	Yes	0.707	0.231	0.94	Yes	1.00	**4.83**
		$U_{11} - L_{11}$			-----	-725.31	227	-219	442	-451	1200	692	392	376	-----	-----	-----	-----	-----	-----	-----	-----	0.730	0.261	1	Yes	0.678	0.199	0.88	Yes	1.00	**4.00**
		$U_{12} - L_{12}$			-----	-730.05	183	-164	366	-357	1485	653	-1141	21	-----	-----	-----	-----	-----	-----	-----	-----	0.700	0.300	1	Yes	0.633	0.157	0.79	Yes	1.00	**3.95**
		$U_{13} - L_{13}$			-----	-625.56	222	-221	489	-474	1146	300	734	265	-----	-----	-----	-----	-----	-----	-----	-----	0.697	0.297	1	Yes	0.603	0.234	0.84	Yes	1.00	**4.07**
		$U_{14} - L_{14}$			-----	-1241.76	-60	51	-57	44	914	-150	-550	-423	-----	-----	-----	-----	-----	-----	-----	-----	0.908	0.087	1	Yes	0.823	0.011	0.84	Yes	1.00	**4.87**
		$U_{15} - L_{15}$			-----	-686.58	-248	261	-632	616	657	57	-686	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.232	1	Yes	0.662	0.303	0.97	Yes	1.00	**4.99**
		$U_{16} - L_{16}$			-----	-616.13	-180	153	-381	365	755	169	-1726	-210	-----	-----	-----	-----	-----	-----	-----	-----	0.712	0.279	1	Yes	0.660	0.162	0.83	Yes	1.00	**2.99**
		$U_{17} - L_{17}$			-----	-647.30	-193	186	-524	530	705	178	-505	6	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.172	0.98	Yes	0.753	0.246	1.00	Yes	1.00	**4.52**
		$U_{18} - L_{18}$			-----	-585.39	-180	179	-458	492	640	193	-623	-35	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.171	0.96	Yes	0.746	0.252	1.00	Yes	1.00	**4.42**
		$U_{19} - L_{19}$			-----	-478.00	-108	106	-285	287	533	165	-722	-50	-----	-----	-----	-----	-----	-----	-----	-----	0.719	0.207	0.93	Yes	0.714	0.277	1.00	Yes	1.00	**4.27**
		$U_{20} - L_{20}$			-----	-280.40	-68	72	-122	138	549	169	-1679	-253	-----	-----	-----	-----	-----	-----	-----	-----	0.575	0.423	1	Yes	0.537	0.158	0.70	Yes	1.00	**2.95**
	Structure 3	$U_{21} - L_{21}$			-----	-278.12	-31	33	-163	186	660	111	-1017	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.628	0.364	1	Yes	0.588	0.238	0.83	Yes	1.00	**7.96**
		$U_{22} - L_{22}$			-----	-151.06	16	-19	26	-28	844	269	-2443	-412	-----	-----	-----	-----	-----	-----	-----	-----	0.340	0.654	1	Yes	0.320	0.036	0.36	Yes	1.00	**5.90**
		$U_{23} - L_{23}$			-----	-311.16	35	-39	210	-232	643	239	-698	-201	-----	-----	-----	-----	-----	-----	-----	-----	0.703	0.294	1	Yes	0.658	0.297	0.96	Yes	1.00	**6.26**
		$U_{24} - L_{24}$			-----	-316.73	78	-81	164	-176	633	240	-1078	-137	-----	-----	-----	-----	-----	-----	-----	-----	0.649	0.350	1	Yes	0.607	0.200	0.81	Yes	1.00	**2.62**
		$U_{25} - L_{25}$			-----	-470.56	118	-116	304	-298	716	298	-50	89	-----	-----	-----	-----	-----	-----	-----	-----	0.708	0.212	0.92	Yes	0.703	0.292	1.00	Yes	1.00	**3.59**
		$U_{26} - L_{26}$			-----	-581.55	176	-172	484	-502	851	393	48	215	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.213	0.99	Yes	0.741	0.257	1.00	Yes	1.00	**4.26**
		$U_{27} - L_{27}$			-----	-587.89	195	-189	506	-509	1280	598	328	308	-----	-----	-----	-----	-----	-----	-----	-----	0.726	0.271	1	Yes	0.684	0.236	0.93	Yes	1.00	**4.31**
		$U_{28} - L_{28}$			-----	-617.48	129	-101	398	-382	1674	554	-1507	-1	-----	-----	-----	-----	-----	-----	-----	-----	0.713	0.285	1	Yes	0.662	0.169	0.84	Yes	1.00	**4.15**
		$U_{29} - L_{29}$			-----	-607.80	109	-116	598	-593	1257	181	-166	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.677	0.315	1	Yes	0.586	0.286	0.88	Yes	1.00	**5.91**
		$U_{30} - L_{30}$			-----	-1251.89	-238	209	-187	138	827	-448	-741	-438	-----	-----	-----	-----	-----	-----	-----	-----	0.916	0.078	1	Yes	0.830	0.042	0.88	Yes	1.00	**4.95**
		$U_{31} - L_{31}$			-----	-722.90	-301	296	-542	521	484	82	-411	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.193	1	Yes	0.697	0.260	0.96	Yes	1.00	**3.90**
		$U_{32} - L_{32}$			-----	-863.45	-218	194	-467	466	446	146	-555	-57	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.162	1	Yes	0.748	0.200	0.95	Yes	1.00	**4.59**
		$U_{33} - L_{33}$			-----	-820.00	-246	230	-487	495	423	179	-639	10	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.170	1	Yes	0.767	0.218	0.99	Yes	1.00	**4.88**
		$U_{34} - L_{34}$			-----	-775.05	-243	243	-488	525	515	254	-1018	-78	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.231	1	Yes	0.725	0.232	0.96	Yes	1.00	**5.49**
		$U_{35} - L_{35}$			-----	-692.98	-270	274	-529	574	597	302	-1110	-195	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.220	1	Yes	0.743	0.244	0.99	Yes	1.00	**5.95**
		$U_{36} - L_{36}$			-----	-472.62	-151	168	-331	360	559	265	-1156	-160	-----	-----	-----	-----	-----	-----	-----	-----	0.685	0.307	1	Yes	0.681	0.315	1.00	Yes	1.00	**5.55**
		$U_{37} - L_{37}$			-----	-183.96	-77	91	-84	100	486	126	-2544	-25	-----	-----	-----	-----	-----	-----	-----	-----	0.416	0.582	1	Yes	0.389	0.128	0.52	Yes	1.00	**3.68**
		$U_{38} - L_{38}$			176.69	-----	-121	133	131	-136	478	144	-1749	-623	0.318	0.680	1.00	Yes	0.175	0.374	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.49**
		$U_{39} - L_{39}$			-----	-293.45	-63	57	191	-215	521	154	-847	-247	-----	-----	-----	-----	-----	-----	-----	-----	0.663	0.329	1	Yes	0.621	0.275	0.90	Yes	1.00	**6.56**
		$U_{40} - L_{40}$			-----	-327.49	24	-33	216	-222	590	168	-191	-59	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.254	1	Yes	0.693	0.284	0.98	Yes	1.00	**4.48**
		$U_{41} - L_{41}$			-----	-463.79	80	-88	232	-246	570	188	59	52	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.209	1	Yes	0.727	0.224	0.96	Yes	1.00	**3.67**
		$U_{42} - L_{42}$			-----	-577.85	157	-166	493	-501	665	169	57	95	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.171	0.95	Yes	0.736	0.256	1.00	Yes	1.00	**4.73**
		$U_{43} - L_{43}$			-----	-708.38	175	-194	521	-548	635	186	359	156	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.155	0.97	Yes	0.759	0.233	1.00	Yes	1.00	**5.67**
		$U_{44} - L_{44}$			-----	-671.37	242	-297	504	-620	538	91	306	52	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.189	1	Yes	0.720	0.263	0.99	Yes	1.00	**4.81**
	Structure 4	$U_0 - L_0$			-----	-586.36	-134	236	-238	401	114	15	-658	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.222	1	Yes	0.682	0.186	0.87	Yes	1.00	**2.87**
		$U_1 - L_1$			-----	-646.31	-208	206	-514	504	618	142	-462	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.162	0.97	Yes	0.752	0.239	1.00	Yes	1.00	**4.56**
		$U_2 - L_2$			-----	-544.99	-159	170	-377	404	660	306	-490	106	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.193	1	Yes	0.758	0.229	0.99	Yes	1.00	**4.05**
		$U_3 - L_3$			-----	-408.49	-70	85	-186	208	567	271	-380	98	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.232	1	Yes	0.705	0.211	0.92	Yes	1.00	**3.22**
		$U_4 - L_4$			-----	-229.23	-47	53	-121	138	585	231	-1984	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.517	0.478	1	Yes	0.485	0.177	0.67	Yes	1.00	**3.23**
		$U_5 - L_5$			-----	-206.05	49	-46	-136	162	753	223	-1397	-90	-----	-----	-----	-----	-----	-----	-----	-----	0.462	0.528	1	Yes	0.436	0.207	0.65	Yes	1.00	**11.26**
		$U_6 - L_6$			-----	-135.10	66	-74	94	-102	847	254	-2566	-436	-----	-----	-----	-----	-----	-----	-----	-----	0.301	0.690	1	Yes	0.286	0.131	0.42	Yes	1.00	**5.95**
		$U_7 - L_7$			-----	-369.80	102	-118	226	-254	543	180	-276	-87	-----	-----	-----	-----	-----	-----	-----	-----	0.748	0.229	0.98	Yes	0.708	0.290	1.00	Yes	1.00	**4.62**
		$U_8 - L_8$			-----	-487.76	157	-154	315	-315	1044	590	-110	68	-----	-----	-----	-----	-----	-----	-----	-----	0.705	0.290	1	Yes	0.669	0.269	0.94	Yes	1.00	**5.02**
		$U_9 - L_9$			-----	-595.72	182	-227	372	-460	1312	786	262	303	-----	-----	-----	-----	-----	-----	-----	-----	0.714	0.279	1	Yes	0.693	0.214	0.91	Yes	1.00	**5.23**
		$U_{10} - L_{10}$			-----	-646.04	155	-145	280	-301	1592	877	-1505	-328	-----	-----	-----	-----	-----	-----	-----	-----	0.669	0.323	1	Yes	0.637	0.156	0.80	Yes	1.00	**4.38**
		$U_{11} - L_{11}$			-----	-508.84	218	-254	341	-393	1037	491	716	368	-----	-----	-----	-----	-----	-----	-----	-----	0.607	0.387	1	Yes	0.575	0.218	0.80	Yes	1.00	**1.82**
		$U_{12} - L_{12}$			-----	-1244.70	-8	-14	-13	-38	1036	229	-154	-48	-----	-----	-----	-----	-----	-----	-----	-----	0.899	0.099	1	Yes	0.863	0.007	0.88	Yes	1.00	**4.07**
		$U_{13} - L_{13}$			-----	-449.76	-155	170	-289	306	651	94	-486	-88	-----	-----	-----	-----	-----	-----	-----	-----	0.752	0.237	0.99	Yes	0.694	0.301	1.00	Yes	1.00	**3.22**
		$U_{14} - L_{14}$			-----	-420.29	-101	99	-160	168	605	253	-1658	-553	-----	-----	-----	-----	-----	-----	-----	-----	0.636	0.361	1	Yes	0.603	0.147	0.76	Yes	1.00	**2.78**
		$U_{15} - L_{15}$			-----	-377.80	-81	91	-161	187	514	254	-109	-242	-----	-----	-----	-----	-----	-----	-----	-----	0.684	0.309	1	Yes	0.652	0.190	0.85	Yes	1.00	**4.58**
		$U_{16} - L_{16}$			-----	-142.17	-93	94	-86	91	1082	384	-2473	-794	-----	-----	-----	-----	-----	-----	-----	-----	0.313	0.679	1	Yes	0.301	0.120	0.43	Yes	1.00	**5.59**
		$U_{17} - L_{17}$			182.22	-----	-181	203	36	-57	480	178	-1423	-620	0.328	0.671	1.00	Yes	0.180	0.369	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.69**
		$U_{18} - L_{18}$			152.49	-255.19	-158	172	201	-236	468	147	-1341	-495	0.274	0.690	0.97	Yes	0.151	0.379	0.54	Yes	0.558	0.440	1	Yes	0.540	0.301	0.85	Yes	1.00	**12.05**
		$U_{19} - L_{19}$			-----	-294.79	-28	11	177	-199	438	218	480	237	-----	-----	-----	-----	-----	-----	-----	-----	0.644	0.346	1	Yes	0.624	0.254	0.88	Yes	1.00	**5.55**
		$U_{20} - L_{20}$			-----	-241.59	85	-99	176	-210	597	191	588	189	-----	-----	-----	-----	-----	-----	-----	-----	0.540	0.460	1	Yes	0.511	0.268	0.78	Yes	1.00	**2.50**

Axial AB Operating

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression												Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield									
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass								
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																						
South Truss - Diagonals	Structure 1	U_0 - L_1	563.11	-----	4	32	3	-14	-863	-482	134	199	0.739	0.254	1.00	Yes	0.446	0.140	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**6.16**
		U_1 - L_2	356.38	-----	-92	-5	20	-18	-833	-785	452	257	0.641	0.359	1.00	Yes	0.353	0.197	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**5.77**
		U_2 - L_3	-----	-248.38	-39	-23	-12	-48	-357	-228	-1552	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.572	0.421	1	Yes	0.526	0.062	0.59	Yes							1.00	**5.45**
		U_3 - L_4	-----	-370.80	7	-26	36	-55	-50	-104	-371	-56	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.148	1	Yes	0.785	0.070	0.86	Yes							1.00	**4.87**
		U_4 - L_4	562.43	-----	-64	96	-21	33	304	192	-201	11	0.825	0.168	1.00	Yes	0.454	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**6.61**
		U_5 - L_5	640.58	-----	-117	278	-8	117	176	348	-412	138	0.757	0.233	1.00	Yes	0.417	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**7.01**
		U_6 - L_6	621.32	-----	-266	253	-37	93	125	605	-568	38	0.735	0.262	1.00	Yes	0.404	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**6.48**
		U_6 - L_7	636.05	-----	-42	361	23	103	141	-33	-213	-132	0.752	0.244	1.00	Yes	0.414	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**5.82**
		U_8 - L_9	944.35	-----	-79	371	14	187	-612	-374	545	270	0.755	0.243	1.00	Yes	0.468	0.137	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**5.67**
		U_9 - L_{10}	945.16	-----	-291	246	-115	128	-876	-566	546	233	0.756	0.241	1.00	Yes	0.468	0.137	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**5.16**
		U_{10} - L_{11}	931.58	-----	-212	211	-83	94	-845	-684	165	-22	0.787	0.209	1.00	Yes	0.487	0.120	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**5.56**
		U_{11} - L_{12}	745.13	-----	-234	85	-96	47	-830	-1000	148	-37	0.737	0.258	1.00	Yes	0.405	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.55**
		U_{12} - L_{13}	565.95	-----	-203	141	-83	61	-644	-579	120	-16	0.690	0.303	1.00	Yes	0.434	0.173	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**6.12**
		U_{13} - L_{14}	350.08	-----	-83	13	-32	10	-903	-878	188	3	0.630	0.368	1.00	Yes	0.346	0.202	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**6.87**
		U_{15} - L_{14}	314.79	-190.26	-124	-37	31	-51	947	-346	-343	-185	0.566	0.432	1.00	Yes	0.311	0.238	0.55	Yes	0.446	0.461	0.91	Yes	0.403	0.158	0.57	Yes							1.00	**15.17**
		U_{16} - L_{15}	391.92	-----	-156	88	-11	-8	328	28	-298	-124	0.705	0.294	1.00	Yes	0.388	0.162	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**9.50**
		U_{17} - L_{16}	524.92	-----	-148	95	-44	21	92	-1	-310	-109	0.770	0.222	1.00	Yes	0.423	0.122	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**5.56**
		U_{18} - L_{17}	618.19	-----	-338	254	-128	86	77	55	-405	-118	0.731	0.265	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**6.18**
		U_{19} - L_{18}	690.20	-----	-327	247	-130	94	-96	45	-458	-206	0.748	0.243	1.00	Yes	0.411	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**6.40**
		U_{20} - L_{19}	685.14	-----	-415	333	-179	145	-166	-138	-258	-141	0.742	0.255	1.00	Yes	0.408	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.75**
	Structure 2	U_0 - L_1	714.67	-----	-187	277	-97	122	-1069	-354	-126	20	0.707	0.288	1.00	Yes	0.389	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**3.93**
		U_1 - L_2	706.13	-----	-382	291	-151	107	-792	-572	171	-5	0.699	0.296	1.00	Yes	0.384	0.163	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**3.82**
		U_2 - L_3	579.06	-----	-310	248	-104	76	-767	-545	156	-1	0.685	0.314	1.00	Yes	0.377	0.173	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**3.78**
		U_3 - L_4	513.92	-----	-166	109	-44	19	-757	-483	194	29	0.685	0.311	1.00	Yes	0.377	0.171	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**3.80**
		U_4 - L_5	312.25	-----	-125	72	13	-26	-953	-459	271	61	0.562	0.436	1.00	Yes	0.309	0.240	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**5.72**
		U_5 - L_6	244.25	-239.92	-84	2	69	-69	-1416	-498	404	128	0.439	0.517	0.96	Yes	0.242	0.284	0.53	Yes	0.567	0.431	1	Yes	0.508	0.107	0.62	Yes							1.00	**8.59**
		U_6 - L_7	-----	-379.00	-3	-44	41	-102	-253	-555	-626	-181	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.186	1	Yes	0.726	0.116	0.85	Yes							1.00	**7.03**
		U_8 - L_7	537.59	-----	-205	109	-96	59	-32	612	-534	-574	0.685	0.308	1.00	Yes	0.431	0.176	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**5.43**
		U_8 - L_8	719.10	-----	-346	235	-166	141	145	-15	-238	-22	0.779	0.216	1.00	Yes	0.428	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.39**
		U_{10} - L_9	788.46	-----	-276	251	-138	138	84	550	-163	83	0.780	0.210	1.00	Yes	0.429	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.05**
		U_{11} - L_{10}	875.02	-----	-350	296	-132	169	195	328	-387	176	0.797	0.201	1.00	Yes	0.438	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.55**
		U_{12} - L_{11}	841.47	-----	-340	343	-128	177	-61	251	-598	64	0.767	0.227	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.29**
		U_{13} - L_{12}	734.02	-----	-418	385	-157	162	-239	165	-533	-6	0.726	0.274	1.00	Yes	0.399	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.39**
		U_{14} - L_{13}	775.87	-----	-274	441	-8	119	-128	65	-157	-118	0.768	0.228	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**6.94**
		U_{14} - L_{15}	591.46	-----	-187	345	8	151	-320	-115	568	259	0.699	0.298	1.00	Yes	0.385	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.76**
		U_{15} - L_{16}	584.13	-----	-346	318	-155	150	55	-367	601	196	0.691	0.305	1.00	Yes	0.380	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**3.24**
		U_{16} - L_{17}	668.64	-----	-319	347	-113	159	-390	-287	537	210	0.724	0.266	1.00	Yes	0.398	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.08**
		U_{17} - L_{18}	628.99	-----	-282	279	-100	142	-505	-323	525	182	0.744	0.255	1.00	Yes	0.409	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**3.90**
		U_{18} - L_{19}	604.19	-----	-276	248	-76	109	-686	-480	367	146	0.714	0.280	1.00	Yes	0.393	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.49**
		U_{19} - L_{20}	512.81	-----	-182	124	-45	62	-700	-897	383	171	0.654	0.346	1.00	Yes	0.360	0.199	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.57**
		U_{20} - L_{21}	351.48	-----	-113	96	-16	25	-738	-328	415	221	0.632	0.359	1.00	Yes	0.348	0.197	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**7.08**
		U_{21} - L_{22}	235.02	-----	-83	24	-24	-79	-1051	-432	-1618	-651	0.423	0.574	1.00	Yes	0.232	0.316	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**9.35**
		U_{23} - L_{22}	371.88	-----	-124	37	2	22	573	-77	-260	48	0.669	0.324	1.00	Yes	0.368	0.178	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**8.75**
		U_{24} - L_{23}	418.67	-----	-132	104	-19	37	268	91	-219	-6	0.753	0.246	1.00	Yes	0.414	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**5.85**
		U_{25} - L_{24}	564.49	-----	-180	165	-43	77	129	569	-261	-33	0.720	0.277	1.00	Yes	0.396	0.158	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.06**
		U_{26} - L_{25}	661.69	-----	-261	293	-64	124	283	249	-225	0	0.782	0.217	1.00	Yes	0.430	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.40**
		U_{27} - L_{26}	628.20	-----	-265	305	-82	129	104	270	-430	140	0.743	0.251	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.04**
		U_{28} - L_{27}	654.94	-----	-279	348	-71	128	-53	218	-630	31	0.709	0.282	1.00	Yes	0.390	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.33**
		U_{29} - L_{28}	581.26	-----	-342	322	-63	80	10	573	-633	-77	0.687	0.308	1.00	Yes	0.378	0.170	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.70**
		U_{30} - L_{29}	583.05	-----	-137	372	62	37	533	96	-282	-250	0.689	0.307	1.00	Yes	0.379	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**6.87**
		U_{30} - L_{31}	726.80	-----	-256	432	-43	219	-470	-244	505	233	0.719	0.276	1.00	Yes	0.395	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.67**
		U_{31} - L_{32}	732.46	-----	-425	377	-225	212	-420	-245	471	138	0.725	0.268	1.00	Yes	0.399	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**3.42**
		U_{32} - L_{33}	819.94	-----	-337	331	-154	192	-755	-527	304	82	0.747	0.246	1.00	Yes	0.411	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.02**
		U_{33} - L_{34}	804.03	-----	-317	258	-140	167	-949	-664	265	65	0.732	0.264	1.00	Yes	0.403	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.00**
		U_{34} - L_{35}	725.76	-----	-296	209	-138	136	-948	-635	112	-42	0.718	0.279	1.00	Yes	0.395	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.32**
		U_{35} - L_{36}	637.91	-----	-307	198	-160	131	-868	-522	128	-9	0.691	0.300	1.00	Yes	0.380	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.17**
		U_{36} - L_{37}	513.68	-----	-174	143	-82	64	-914	-609	90	-69	0.655	0.342	1.00	Yes	0.412	0.197	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**7.32**
		U_{38} - L_{37}	-----	-353.16	-56	-65	33	-91	117	545	367	-93	-----	-----	-----	-----	-----	-----	-----	-----	0.763	0.236	1	Yes	0.677	0.104	0.79	Yes							1.00	**7.41**
		U_{39} - L_{38}	377.98	-211.96	-124	41	59	-66	547	-90	-365	-80	0.680	0.317	1.00	Yes	0.374	0.174	0.55	Yes	0.505	0.315	0.82	Yes	0.449	0.159	0.61	Yes							1.00	**9.08**
		U_{40} - L_{39}	393.31	-----	-139	90	2	-16	154	39	-378	-100	0.707	0.287	1.00	Yes	0.389	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**5.82**
		U_{41} - L_{40}	558.50	-----	-178	125	-51	25	6	6	-413	-181	0.744	0.249	1.00	Yes	0.409	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.14**
		U_{42} - L_{41}	619.06	-----	-326	262	-112	83	-34	36	-409	-173	0.732	0.259	1.00	Yes	0.403	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.25**
		U_{43} - L_{42}	772.06	-----	-375	309	-125	93	-90	84	-388	-200	0.764	0.232	1.00	Yes	0.420	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**5.43**
		U_{44} - L_{43}	786.00	-----	-403	381	-170	150	51	56	-210	-92	0.778	0.219	1.00	Yes	0.428	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**5.73**
	Structure 3	U_0 - L_1	651.90	-----	-175	230	-78	102	-1030	-379	-147	3	0.706	0.287	1.00	Yes	0.388	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.12**
		U_1 - L_2	635.22	-----	-339	243	-159	109	-797	-537	160	-42	0.688	0.305	1.00	Yes	0.378	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**3.82**
		U_2 - L_3	561.98	-----	-303	240	-125	86	-874	-618	128	-29	0.664	0.330	1.00	Yes	0.365	0.181	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.12**
		U_3 - L_4	460.17	-----	-133	73	-43	21	-669	-804	150	-29	0.675	0.322	1.00	Yes	0.371	0.177	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**3.73**
		U_4 - L_5	278.94	-----	-139	63	-1	-14	-1079	-668	269	52	0.502	0.490	1.00	Yes	0.276	0.269	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**10.03**
		U_5 - L_6	-----	-209.38	-36	-71	18	-104	-712	-699	-1066	-420	-----	-----	-----	-----	-----	-----	-----	-----	0.491	0.500	1	Yes	0.443	0.133	0.58	Yes							1.00	**6.73**
		U_7 - L_6	440.09	-----	-96	43	-38	12	151	-132	-286	-163	0.792	0.205	1.00	Yes	0.435	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**5.40**
		U_8 - L_7	632.06	-----	-204	166	-93	70	246	114	-241	-103	0.770	0.226	1.00	Yes	0.485	0.127	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**5.96**
		U_8 - L_8	828.32	-----	-230	154	-81	64	432	376	-364	106	0.819	0.171	1.00	Yes	0.451	0.094	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**6.67**
		U_{10} - L_9	959.80	-----	-187	246	-56	101	469	511	-423	141	0.811	0.181	1.00	Yes	0.502	0.102	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**7.38**
		U_{11} - L_{10}	929.58	-----	-281	256	-82	106	517	996	-538	-34	0.743	0.252	1.00	Yes	0.460	0.144	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**6.32**
		U_{12} - L_{11}	954.41	-----	-23	408	14	142	417	281	-423	-86	0.763	0.236	1.00	Yes	0.473	0.132	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**5.65**
		U_{12} - L_{13}	601.64	-----	-87	298	12	163	-276	-223	619	350	0.711	0.282	1.00	Yes	0.391	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.76**
		U_{13} - L_{14}	596.38	-----	-279	215	-98	131	-442	-563	722	320	0.705	0.290	1.00	Yes	0.388	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.28**
		U_{14} - L_{15}	506.15	-----	-151	211	-56	101	-1509	-242	264	55	0.598	0.394	1.00	Yes	0.329	0.217	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**4.68**
		U_{15} - L_{16}	534.32	-----	-76	61	-25	29	-409	-591	216	52	0.784	0.214	1.00	Yes	0.431	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**7.42**
		U_{17} - L_{16}	-----	-330.28	-19	-48	40	-24	-118	31	-473	-116	-----	-----	-----	-----	-----	-----	-----	-----	0.755	0.238	1	Yes	0.699	0.061	0.77	Yes							1.00	**6.53**
		U_{18} - L_{17}	-----	-347.44	-111	-11	68	-42	280	-120	-204	-65	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.192	1	Yes	0.735	0.142	0.88	Yes							1.00	**13.59**
		U_{19} - L_{18}	461.12	-----	-84	6	41	-30	109	53	-207	-118	0.829	0.167	1.00	Yes	0.456	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**11.76**
		U_{20} - L_{19}	620.42	-----	-143	81	-29	2	-3	23	-70	-5	0.814	0.184	1.00	Yes	0.491	0.102	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----							1.00	**7.66**

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Location	Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	Impact & Pedestrian Load MAX	Impact & Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capacity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Structure 1	U_1 - U_4	-71.64	-9.14	-54.01			0.90	1.00	-8.23	-48.60	0.00	0.00	Vehicle	Vehicle	-----	-198.44	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	6.09	10.16
	U_1 - U_2	-90.83	38.59	-95.13			0.90	1.00	34.73	-85.62	0.00	0.00	Vehicle	Vehicle	-----	-303.58	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	3.33	5.54
	U_2 - U_3	-61.13	57.14	-119.49			0.90	1.00	51.43	-107.54	0.00	0.00	Vehicle	Vehicle	31.96	-312.48	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	8.54	14.24	2.81	4.69
	U_3 - U_4	10.71	74.63	-124.53			0.90	1.00	67.17	-112.07	0.00	0.00	Vehicle	Vehicle	159.44	-228.91	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	5.90	9.83	3.08	5.14
	U_4 - U_5	12.86	75.02	-124.00			0.90	1.00	67.52	-111.60	0.00	0.00	Vehicle	Vehicle	163.01	-225.07	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	5.85	9.75	3.11	5.18
	U_1 - U_7	121.37	86.46	-79.62			0.90	1.00	77.81	-71.66	0.00	0.00	Vehicle	Vehicle	326.38	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	4.24	7.06	-----	-----
	U_2 - U_7	249.49	95.35	-28.02			0.90	1.00	85.81	-25.22	0.00	0.00	Vehicle	Vehicle	510.27	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	3.88	6.47	-----	-----
	U_3 - U_7	376.92	97.04	30.44			0.90	1.00	87.33	27.39	0.00	0.00	Vehicle	Vehicle	679.22	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	5.04	8.40	-----	-----
	U_5 - U_7	319.74	122.34	0.00			0.90	1.00	110.11	0.00	0.00	0.00	Vehicle	Vehicle	654.22	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	3.37	5.62	-----	-----
	U_7 - U_9	128.77	58.75	0.00			0.90	1.00	52.87	0.00	0.00	0.00	Vehicle	Vehicle	281.95	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	-----	-----	42.67	-----	-----	10.67	-----	-----	6.59	10.98	-----	-----
	U_9 - U_{11}	-70.90	-10.09	0.00			0.90	1.00	0.00	-9.08	0.00	0.00	Vehicle	Vehicle	-----	-111.84	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	34.79	57.99
	U_{11} - U_{12}	-252.96	61.59	-31.25			0.90	1.00	55.43	-28.12	0.00	0.00	Vehicle	Vehicle	-----	-389.79	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	11.94	19.90
	U_{12} - U_{13}	-391.95	53.31	-185.79			0.90	1.00	47.98	-167.21	0.00	0.00	Vehicle	Vehicle	-----	-871.82	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	44.60	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	2.68	4.46
	U_{13} - U_{14}	-482.99	44.84	-219.87			0.90	1.00	40.35	-197.88	0.00	0.00	Vehicle	Vehicle	-----	-1056.64	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.73	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.56	4.27
	U_{14} - U_{15}	-454.44	44.67	-220.00			0.90	1.00	40.21	-198.00	0.00	0.00	Vehicle	Vehicle	-----	-1058.78	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.68	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.55	4.26
	U_{15} - U_{16}	-502.02	34.35	-207.35			0.90	1.00	30.91	-186.62	0.00	0.00	Vehicle	Vehicle	-----	-1056.96	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.72	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.65	4.42
	U_{16} - U_{17}	-467.99	15.90	-179.31			0.90	1.00	14.31	-161.38	0.00	0.00	Vehicle	Vehicle	-----	-958.04	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.20	5.33
	U_{17} - U_{18}	-368.86	15.40	-130.36			0.90	1.00	13.86	-117.32	0.00	0.00	Vehicle	Vehicle	-----	-733.71	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	44.92	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	3.08	5.13
	U_{18} - U_{19}	-251.56	7.65	-79.56			0.90	1.00	6.88	-71.61	0.00	0.00	Vehicle	Vehicle	-----	-482.17	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	3.57	5.95
	U_{19} - U_{20}	-117.89	1.58	-28.42			0.90	1.00	1.42	-25.58	0.00	0.00	Vehicle	Vehicle	-----	-208.68	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	13.13	21.88
Structure 2	U_1 - U_4	-118.23	-14.08	-30.94			0.90	1.00	-12.68	-27.84	0.00	0.00	Vehicle	Vehicle	-----	-214.03	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	11.40	19.00
	U_1 - U_2	-239.56	-97.89	-13.44			0.90	1.00	-12.09	-88.10	0.00	0.00	Vehicle	Vehicle	-----	-502.32	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.76	6.26
	U_2 - U_5	-350.44	-51.60	-90.02			0.90	1.00	-46.44	-81.02	0.00	0.00	Vehicle	Vehicle	-----	-631.11	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.69	4.00	0.69	16.00	99.35	272.00	30.22	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	5.38	8.97
	U_3 - U_5	-449.15	31.53	-199.07			0.90	1.00	28.38	-179.16	0.00	0.00	Vehicle	Vehicle	-----	-972.07	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.99	4.98
	U_4 - U_5	-483.26	36.38	-236.38			0.90	1.00	35.37	-212.74	0.00	0.00	Vehicle	Vehicle	-----	-1089.17	15.10	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.83	4.72
	U_5 - U_6	-485.85	82.93	-264.95			0.90	1.00	74.63	-238.46	0.00	0.00	Vehicle	Vehicle	-----	-1148.26	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.33	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.52	4.20
	U_6 - U_7	-428.85	97.82	-270.06			0.90	1.00	88.04	-243.05	0.00	0.00	Vehicle	Vehicle	-----	-1084.12	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	43.32	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.25	3.75
	U_7 - U_8	-428.37	98.05	-269.78			0.90	1.00	88.24	-242.80	0.00	0.00	Vehicle	Vehicle	-----	-1082.95	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	43.34	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.26	3.76
	U_8 - U_9	-335.42	111.96	-241.14			0.90	1.00	100.76	-217.02	0.00	0.00	Vehicle	Vehicle	-----	-906.26	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	43.41	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	2.19	3.64
	U_9 - U_{10}	-200.29	120.61	-191.33			0.90	1.00	108.55	-172.20	0.00	0.00	Vehicle	Vehicle	-----	-633.47	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	28.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	2.39	3.98
	U_{10} - U_{11}	-52.14	127.55	-133.73			0.90	1.00	114.80	-120.36	0.00	0.00	Vehicle	Vehicle	180.94	-328.55	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	5.03	8.39	3.58	5.96
	U_{11} - U_{12}	107.02	126.68	-68.61			0.90	1.00	114.01	-61.75	0.00	0.00	Vehicle	Vehicle	386.15	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	4.23	7.05	-----	-----
	U_{13} - U_{13}	259.33	124.99	-7.90			0.90	1.00	112.49	-7.11	0.00	0.00	Vehicle	Vehicle	580.86	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	4.69	7.82	-----	-----
	U_{13} - U_{14}	391.98	117.34	48.25			0.90	1.00	105.61	43.43	0.00	0.00	Vehicle	Vehicle	738.38	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	6.66	11.10	-----	-----
	U_{14} - U_{15}	439.40	86.58	-2.52			0.90	1.00	167.92	-2.26	0.00	0.00	Vehicle	Vehicle	935.05	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.02	6.70	-----	-----
	U_{15} - U_{16}	369.66	72.42	27.17			0.90	1.00	65.18	24.45	0.00	0.00	Vehicle	Vehicle	621.79	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	8.31	13.85	-----	-----
	U_{16} - U_{17}	271.39	88.24	0.00			0.90	1.00	79.41	0.00	0.00	0.00	Vehicle	Vehicle	524.87	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	5.84	9.73	-----	-----
	U_{17} - U_{18}	171.75	25.82	-7.67			0.90	1.00	23.24	-6.90	0.00	0.00	Vehicle	Vehicle	273.62	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	15.35	25.59	-----	-----
	U_{18} - U_{19}	72.78	110.26	-15.11			0.90	1.00	99.24	-13.60	0.00	0.00	Vehicle	Vehicle	309.63	-----	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	4.19	6.99	-----	-----
	U_{19} - U_{20}	-8.11	113.54	-92.38			0.90	1.00	102.18	-83.14	0.00	0.00	Vehicle	Vehicle	210.85	-190.68	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	4.86	8.11	4.94	8.24
	U_{20} - U_{21}	-60.13	114.76	-104.37			0.90	1.00	103.28	-93.94	0.00	0.00	Vehicle	Vehicle	145.61	-281.69	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.11	10.18	4.96	8.27
	U_{21} - U_{22}	-82.18	115.54	-200.80			0.90	1.00	103.98	-180.72	0.00	0.00	Vehicle	Vehicle	118.45	-498.41	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.20	10.33	2.51	4.18
	U_{22} - U_{23}	-82.40	115.64	-200.83			0.90	1.00	104.08	-180.75	0.00	0.00	Vehicle	Vehicle	118.38	-498.75	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.19	10.32	2.50	4.17
	U_{23} - U_{24}	-65.94	114.04	-89.72			0.90	1.00	102.64	-80.75	0.00	0.00	Vehicle	Vehicle	136.65	-260.69	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.18	10.30	5.73	9.55
	U_{24} - U_{25}	61.51	111.83	-156.09			0.90	1.00	100.65	-140.48	0.00	0.00	Vehicle	Vehicle	194.72	-327.72	5.50	32.31	26.8125	1066.31	131.71	10.6302	5.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	5.00	8.33	2.88	4.80
	U_{25} - U_{26}	55.02	107.25	-109.36			0.90	1.00	96.53	-98.43	0.00	0.00	Vehicle	Vehicle	280.67	-141.73	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	4.42	7.37	4.28	7.14
	U_{26} - U_{27}	136.02	102.68	18.11			0.90	1.00	92.41	16.30	0.00	0.00	Vehicle	Vehicle	377.04	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	4.09	6.82	-----	-----
	U_{27} - U_{28}	216.87	96.09	-3.25			0.90	1.00	86.48	-2.92	0.00	0.00	Vehicle	Vehicle	469.31	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	5.74	9.56	-----	-----
	U_{28} - U_{29}	293.76	89.91	18.46			0.90	1.00	80.91	16.62	0.00	0.00	Vehicle	Vehicle	557.20	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	7.26	12.09	-----	-----
	U_{29} - U_{30}	358.11	36.84	90.47			0.90	1.00	81.43	33.16	0.00	0.00	Vehicle	Vehicle	641.97	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	8.89	14.81	-----	-----
	U_{30} - U_{31}	339.33	194.18	0.00			0.90	1.00	174.76	0.00	0.00	0.00	Vehicle	Vehicle	819.78	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.21	7.01	-----	-----
	U_{31} - U_{32}	251.17	44.03	-11.55			0.90	1.00	39.63	-10.39	0.00	0.00	Vehicle	Vehicle	412.38	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	13.44	22.41	-----	-----
	U_{32} - U_{33}	136.17	84.06	-29.73			0.90	1.00	75.65	-26.75	0.00

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

North Truss - Lower Chord

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Structure 1	L_0 - L_1	4.85	-1.15	-3.22			0.90	1.00	-1.03	-2.90	0.00	0.00	Vehicle	Vehicle	4.07	-----	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	-----	-----	-----	-----
	L_1 - L_2	74.27	19.90	30.38			0.90	1.00	27.34	17.91	0.00	0.00	Vehicle	Vehicle	155.78	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**9.40**	**15.67**	-----	-----
	L_2 - L_3	97.77	-42.61	90.46			0.90	1.00	81.41	-38.35	0.00	0.00	Vehicle	Vehicle	303.49	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**4.21**	**7.01**	-----	-----
	L_2 - L_4	66.93	-61.06	114.46			0.90	1.00	103.02	-54.95	0.00	0.00	Vehicle	Vehicle	310.21	-32.05	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	**3.50**	**5.84**	**6.88**	**11.46**
	L_3 - L_5	-108.46	-91.01	75.29			0.90	1.00	67.76	-81.90	0.00	0.00	Vehicle	Vehicle	5.81	-318.46	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	**6.22**	**10.37**	**2.87**	**4.78**
	L_4 - L_6	-237.28	-100.10	23.54			0.90	1.00	21.19	-90.09	0.00	0.00	Vehicle	Vehicle	-----	-503.66	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	44.65	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**2.81**	**4.69**
	L_5 - L_7	-362.27	-105.00	-35.24			0.90	1.00	-31.72	-94.50	0.00	0.00	Vehicle	Vehicle	-----	-675.69	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.70**	**6.17**
	L_6 - L_7	478.66	-39.11	-87.51			0.90	1.00	-35.20	-78.76	0.00	0.00	Vehicle	Vehicle	-----	-792.90	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**5.49**	**9.15**
	L_7 - L_9	-477.02	-195.33	0.00			0.90	1.00	0.00	-175.79	0.00	0.00	Vehicle	Vehicle	-----	-1001.01	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	42.74	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**2.47**	**4.11**
	L_8 - L_9	-301.43	-62.68	-75.86			0.90	1.00	-56.41	-68.27	0.00	0.00	Vehicle	Vehicle	-----	-539.78	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**5.66**	**9.43**
	L_9 - L_{11}	-104.46	-79.83	0.00			0.90	1.00	0.00	-71.85	0.00	0.00	Vehicle	Vehicle	-----	-291.47	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**3.31**	**5.51**
	L_{11} - L_{12}	97.11	-10.17	0.00			0.90	1.00	0.00	-9.16	0.00	0.00	Vehicle	Vehicle	126.24	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	-----	-----	-----	-----
	L_{12} - L_{13}	268.74	-53.54	101.35			0.90	1.00	91.22	-48.18	0.00	0.00	Vehicle	Vehicle	547.00	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.64**	**7.74**	-----	-----
	L_{13} - L_{14}	405.66	104.85	0.00			0.90	1.00	94.37	0.00	0.00	0.00	Vehicle	Vehicle	731.81	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.74**	**9.56**	-----	-----
	L_{14} - L_{15}	502.77	-25.46	164.32			0.90	1.00	147.89	-22.91	0.00	0.00	Vehicle	Vehicle	974.03	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.35**	**7.25**	-----	-----
	L_{15} - L_{16}	469.25	-16.02	136.31			0.90	1.00	122.68	-14.42	0.00	0.00	Vehicle	Vehicle	875.82	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.41**	**9.01**	-----	-----
	L_{16} - L_{17}	365.43	-13.14	80.90			0.90	1.00	72.81	-11.83	0.00	0.00	Vehicle	Vehicle	632.81	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.01**	**11.69**	-----	-----
	L_{17} - L_{18}	248.67	2.61	30.00			0.90	1.00	27.00	2.35	0.00	0.00	Vehicle	Vehicle	381.78	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	**14.10**	**23.51**	-----	-----
	L_{18} - L_{19}	112.99	-2.77	-25.19			0.90	1.00	-2.49	-22.67	0.00	0.00	Vehicle	Vehicle	141.49	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	-----	-----	-----	-----
	L_{19} - L_{20}	-14.26	14.11	-71.00			0.90	1.00	12.70	-63.90	0.00	0.00	Vehicle	Vehicle	8.98	-156.99	1.95	19.80	17.8500	653.40	131.71	10.8073	5.6265	17.41	32.71	-550.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	**24.42**	**40.71**	**3.84**	**6.40**
Structure 2	L_0 - L_1	15.26	-10.38	-0.37			0.90	1.00	-0.33	-9.34	0.00	0.00	Vehicle	Vehicle	19.12	-0.40	1.88	24.95	23.0700	823.35	131.71	10.8828	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	45.00	Pass	6.32	12.00	Pass	6.32	12.00	Pass	-----	-----	**35.35**	**58.92**
	L_1 - L_2	136.12	37.45	-9.47			0.90	1.00	33.70	-8.52	0.00	0.00	Vehicle	Vehicle	249.98	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**8.85**	**14.75**	-----	-----
	L_2 - L_3	262.92	79.30	-19.34			0.90	1.00	71.37	-17.41	0.00	0.00	Vehicle	Vehicle	496.43	-----	6.20	38.45	32.2500	1268.85	131.71	10.7370	6.1675	15.67	32.77	-1070.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	**6.00**	**9.99**	-----	-----
	L_3 - L_4	373.32	68.27	72.03			0.90	1.00	64.82	61.44	0.00	0.00	Vehicle	Vehicle	625.77	-----	9.45	51.58	42.1250	1701.98	131.71	10.7370	5.7558	16.79	32.73	-1434.93	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	**8.66**	**14.44**	-----	-----
	L_4 - L_5	456.80	-27.82	90.91			0.90	1.00	81.82	-25.04	0.00	0.00	Vehicle	Vehicle	771.71	-----	11.08	65.05	54.0000	2145.00	131.71	10.6406	5.6658	16.90	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	**8.75**	**14.58**	-----	-----
	L_5 - L_6	489.63	-65.09	215.38			0.90	1.00	193.84	-58.58	0.00	0.00	Vehicle	Vehicle	1056.50	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.03**	**6.72**	-----	-----
	L_6 - L_7	479.27	-82.19	242.62			0.90	1.00	218.36	-73.97	0.00	0.00	Vehicle	Vehicle	1096.16	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	**3.68**	**6.13**	-----	-----
	L_7 - L_8	330.30	-110.63	219.36			0.90	1.00	197.42	-99.57	0.00	0.00	Vehicle	Vehicle	857.14	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	**3.07**	**5.12**	-----	-----
	L_8 - L_9	189.19	-119.51	168.61			0.90	1.00	151.75	-107.56	0.00	0.00	Vehicle	Vehicle	574.74	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	**3.60**	**6.00**	-----	-----
	L_9 - L_{10}	39.95	-126.61	110.70			0.90	1.00	99.63	-113.95	0.00	0.00	Vehicle	Vehicle	267.80	-194.95	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	**4.95**	**8.25**	**4.04**	**6.74**
	L_{10} - L_{11}	-127.23	-127.65	44.51			0.90	1.00	40.06	-114.88	0.00	0.00	Vehicle	Vehicle	-----	-414.31	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.76	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.73**	**4.56**
	L_{11} - L_{12}	-282.51	-126.13	-17.25			0.90	1.00	-15.52	-113.52	0.00	0.00	Vehicle	Vehicle	-----	-613.22	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.43**	**5.71**
	L_{12} - L_{13}	-426.62	-122.45	-74.13			0.90	1.00	-66.72	-110.21	0.00	0.00	Vehicle	Vehicle	-----	-793.39	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**4.62**	**7.70**
	L_{13} - L_{14}	-536.34	-6.22	-254.50			0.90	1.00	-5.59	-229.05	0.00	0.00	Vehicle	Vehicle	-----	-1193.52	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.92	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.56**	**4.27**
	L_{14} - L_{15}	-537.64	-256.54	-15.64			0.90	1.00	-14.08	-230.88	0.00	0.00	Vehicle	Vehicle	-----	-1199.19	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.81	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.54**	**4.23**
	L_{15} - L_{16}	-475.53	-107.68	-97.19			0.90	1.00	-87.47	-96.92	0.00	0.00	Vehicle	Vehicle	-----	-828.17	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**4.95**	**8.25**
	L_{16} - L_{17}	-384.21	-179.09	0.00			0.90	1.00	0.00	-161.18	0.00	0.00	Vehicle	Vehicle	-----	-848.69	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	43.29	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.47**	**4.11**
	L_{17} - L_{18}	-281.70	-120.08	-45.11			0.90	1.00	-40.60	-108.07	0.00	0.00	Vehicle	Vehicle	-----	-600.37	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	42.86	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.47**	**4.12**
	L_{18} - L_{19}	-174.99	-84.08	28.79			0.90	1.00	25.91	-75.68	0.00	0.00	Vehicle	Vehicle	-----	-391.45	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.16**	**5.27**
	L_{19} - L_{20}	-76.34	-86.65	50.02			0.90	1.00	45.02	-77.99	0.00	0.00	Vehicle	Vehicle	-----	-268.22	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.83**	**6.38**
Structure 3	L_0 - L_1	4.59	-81.88	68.80			0.90	1.00	61.92	-73.69	0.00	0.00	Vehicle	Vehicle	140.14	-153.70	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**9.30**	**15.50**	**6.67**	**11.11**
	L_1 - L_2	56.15	-82.97	80.65			0.90	1.00	72.59	-74.68	0.00	0.00	Vehicle	Vehicle	230.26	-88.81	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**7.51**	**12.52**	**6.99**	**11.66**
	L_2 - L_3	63.16	-73.86	127.01			0.90	1.00	114.31	-66.47	0.00	0.00	Vehicle	Vehicle	329.79	-61.92	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**4.73**	**7.89**	**7.92**	**13.20**
	L_2 - L_4	15.68	-71.50	97.16			0.90	1.00	87.44	-64.35	0.00	0.00	Vehicle	Vehicle	209.84	-119.05	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.51**	**10.85**	**7.74**	**12.90**
	L_2 - L_5	-55.90	-59.34	41.44			0.90	1.00	37.30	-53.40	0.00	0.00	Vehicle	Vehicle	8.14	-188.38	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**11.82**	**19.71**	**5.82**	**9.69**
	L_3 - L_6	-136.32	-54.71	-10.84			0.90	1.00	-9.75	-49.23	0.00	0.00	Vehicle	Vehicle	-----	-283.89	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**5.33**	**8.88**
	L_4 - L_7	-217.71	-41.08	-119.81			0.90	1.00	-36.97	-107.83	0.00	0.00	Vehicle	Vehicle	-----	-516.65	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.84**	**4.73**
	L_5 - L_8	-296.28	-34.73	-126.84			0.90	1.00	-31.25	-114.16	0.00	0.00	Vehicle	Vehicle	-----	-632.50	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.95**	**6.58**
	L_6 - L_9	-364.24	-21.48	-115.83			0.90	1.00	-19.33	-104.25	0.00	0.00	Vehicle	Vehicle	-----	-699.39	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**5.24**	**8.74**
	L_8 - L_{10}	-418.31	-19.64	-279.79			0.90	1.00	-17.68	-251.81	0.00	0.00	Vehicle	Vehicle	-----	-1089.39	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.61**	**4.36**
	L_9 - L_{11}	-350.66	-238.02	0.00			0.90	1.00	0.00	-214.22	0.00	0.00	Vehicle	Vehicle	-----	-920.00	11.98	70.85	58.8700	2338.05	131.71	11.1432	5.6285	17.82	32.70	-1969.16	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.26**	**5.43**
	L_{11} - L_{12}	-275.63	-79.73	-102.51			0.90	1.00	-71.76	-92.25	0.00	0.00	Vehicle	Vehicle	-----	-558.21	9.73	59.60	49.8700	1966.80	131.71	11.1432	5.8413	17.17	32.72	-1657.58	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**6.50**	**10.83**
	$L_{12}

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Verticals	Structure 1	U$_2$ - L$_0$	-77.20	19.19	-56.87			0.90	1.00	17.27	-51.18	0.00	0.00	Vehicle	Vehicle	------	-211.26	1.63	16.85	15.2186	556.00	131.71	9.3438	1.9682	42.73	31.26	-447.73	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.13	5.22
		U$_1$ - L$_1$	-33.88	17.16	-47.99			0.90	1.00	15.45	-43.19	0.00	0.00	Vehicle	Vehicle	------	-137.62	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	4.42	7.37
		U$_2$ - L$_2$	10.41	16.07	-35.34			0.90	1.00	14.46	-31.81	0.00	0.00	Vehicle	Vehicle	44.86	-55.39	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	17.32	28.86	6.84	11.39
		U$_3$ - L$_3$	44.37	15.92	-22.47			0.90	1.00	14.33	-20.22	0.00	0.00	Vehicle	Vehicle	88.73	------	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	------	------	6.56	------	------	------	------	------	------	16.05	26.75	------	------
		U$_3$ - L$_4$	-16.71	-56.10	0.00			0.90	1.00	0.00	-50.49	0.00	0.00	Vehicle	Vehicle	------	-131.11	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.96	6.60
		U$_4$ - L$_5$	-109.52	-72.68	0.00			0.90	1.00	0.00	-65.41	0.00	0.00	Vehicle	Vehicle	------	-284.09	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	------	------	16.16	------	------	33.25	45.00	Pass	5.37	12.00	Pass	------	------	------	------	------	2.90	4.83
		U$_4$ - L$_6$	-143.61	-89.85	-0.99			0.90	1.00	-0.89	-80.87	0.00	0.00	Vehicle	Vehicle	------	-361.90	3.13	24.86	21.7294	820.36	131.71	9.9479	2.0895	42.85	31.25	-660.40	16.00	0.44	10.00	0.56	------	------	16.00	------	------	36.57	45.00	Pass	8.89	12.00	Pass	------	------	------	------	------	2.70	4.51
		U$_5$ - L$_7$	-142.76	-83.05	1.97			0.90	1.00	1.77	-74.75	0.00	0.00	Vehicle	Vehicle	------	-347.54	2.88	23.11	20.2294	762.61	131.71	11.7292	2.0414	51.71	30.46	-598.26	16.25	0.44	10.00	0.50	------	------	16.25	------	------	37.14	45.00	Pass	10.00	12.00	Pass	------	------	------	------	------	2.55	4.25
		U$_5$ - L$_8$	-391.96	-96.14	-75.83			0.90	1.00	-68.24	-86.52	0.00	0.00	Vehicle	Vehicle	------	-697.01	3.28	51.42	48.1423	1696.94	131.71	16.6563	4.0363	37.14	31.69	-1385.05	15.25	0.82	15.64	1.31	------	------	15.25	------	------	18.60	45.00	Pass	5.96	12.00	Pass	------	------	------	------	------	4.67	7.78
		U$_6$ - L$_9$	-223.26	7.87	-87.75			0.90	1.00	7.08	-78.97	0.00	0.00	Vehicle	Vehicle	------	-461.34	3.50	31.56	28.0625	1041.56	131.71	12.1563	2.5582	42.77	31.26	-838.65	16.25	0.50	12.00	0.63	------	------	16.25	------	------	32.50	45.00	Pass	9.60	12.00	Pass	------	------	------	------	------	3.21	5.34
		U$_{10}$ - L$_{10}$	-225.85	6.10	-93.98			0.90	1.00	5.49	-84.58	0.00	0.00	Vehicle	Vehicle	------	-476.87	2.76	36.13	33.3715	1192.34	131.71	10.7083	2.3777	40.53	31.44	-965.49	16.16	0.83	11.50	0.80	------	------	16.16	------	------	19.50	45.00	Pass	7.23	12.00	Pass	------	------	------	------	------	3.67	6.11
		U$_{11}$ - L$_{11}$	-198.80	0.00	-86.81			0.90	1.00	0.00	-78.13	0.00	0.00	Vehicle	Vehicle	------	-427.71	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.40	5.66
		U$_{12}$ - L$_{12}$	-154.81	0.00	-77.40			0.90	1.00	0.00	-69.66	0.00	0.00	Vehicle	Vehicle	------	-352.18	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	------	------	16.25	------	------	32.50	45.00	Pass	8.89	12.00	Pass	------	------	------	------	------	3.25	5.42
		U$_{13}$ - L$_{13}$	-109.06	0.00	-65.86			0.90	1.00	0.00	-59.27	0.00	0.00	Vehicle	Vehicle	------	-270.19	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	------	2.75	4.58
		U$_{14}$ - L$_{14}$	-12.31	0.00	-51.88			0.90	1.00	-46.69	0.00	0.00	0.00	Vehicle	Vehicle	------	-117.16	0.00	16.85	16.8486	556.00	131.71	9.2805	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	4.27	7.12
		U$_{15}$ - L$_{15}$	-5.62	-34.04	11.47			0.90	1.00	10.32	-30.64	0.00	0.00	Vehicle	Vehicle	15.07	-73.68	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	25.18	41.97	6.61	11.02
		U$_{16}$ - L$_{16}$	-51.73	-54.26	11.41			0.90	1.00	10.27	-48.83	0.00	0.00	Vehicle	Vehicle	------	-173.05	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.56	5.93
		U$_{17}$ - L$_{17}$	-127.32	-75.19	11.84			0.90	1.00	10.66	-67.67	0.00	0.00	Vehicle	Vehicle	------	-312.14	0.00	20.66	20.6644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	------	------	16.16	------	------	33.25	45.00	Pass	5.37	12.00	Pass	------	------	------	------	------	2.52	4.20
		U$_{18}$ - L$_{18}$	-159.94	-83.75	10.90			0.90	1.00	9.81	-75.37	0.00	0.00	Vehicle	Vehicle	------	-371.23	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	------	------	16.16	------	------	32.06	45.00	Pass	7.23	12.00	Pass	------	------	------	------	------	2.91	4.85
		U$_{19}$ - L$_{19}$	-191.17	-85.55	9.20			0.90	1.00	8.28	-76.99	0.00	0.00	Vehicle	Vehicle	------	-415.34	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.31	5.52
		U$_{20}$ - L$_{20}$	-212.33	-98.38	9.19			0.90	1.00	8.27	-88.54	0.00	0.00	Vehicle	Vehicle	------	-467.87	0.00	30.63	30.6305	1010.81	131.71	20.3229	2.8427	64.34	29.06	-756.66	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	2.51	4.18
	Structure 2	U$_0$ - L$_0$	-206.69	16.30	-88.96			0.90	1.00	14.67	-80.06	0.00	0.00	Vehicle	Vehicle	------	-442.17	0.00	33.27	33.2657	1097.77	131.71	19.1510	2.8573	60.32	29.54	-835.23	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	3.27	5.44
		U$_1$ - L$_1$	-188.76	16.71	-85.88			0.90	1.00	15.04	-77.29	0.00	0.00	Vehicle	Vehicle	------	-412.85	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	3.75	6.26
		U$_1$ - L$_2$	-155.92	17.52	-79.89			0.90	1.00	15.77	-71.90	0.00	0.00	Vehicle	Vehicle	------	-358.47	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	3.49	5.82
		U$_2$ - L$_3$	-134.58	19.75	-75.69			0.90	1.00	17.77	-68.12	0.00	0.00	Vehicle	Vehicle	------	-322.55	0.00	22.73	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	------	------	16.32	------	------	30.85	45.00	Pass	4.91	12.00	Pass	------	------	------	------	------	2.79	4.66
		U$_3$ - L$_4$	-64.49	18.69	-57.70			0.90	1.00	16.82	-51.58	0.00	0.00	Vehicle	Vehicle	------	-196.36	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.17	5.29
		U$_4$ - L$_5$	-19.94	20.21	-49.00			0.90	1.00	18.19	-44.10	0.00	0.00	Vehicle	Vehicle	13.48	-121.47	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	14.77	24.62	4.36	7.27
		U$_4$ - L$_6$	40.08	16.67	-25.59			0.90	1.00	15.01	-23.03	0.00	0.00	Vehicle	Vehicle	84.62	------	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	------	------	6.56	------	------	------	------	------	------	15.50	25.83	------	------
		U$_5$ - L$_7$	-26.04	-13.03	0.00			0.90	1.00	0.00	-11.73	0.00	0.00	Vehicle	Vehicle	------	-59.25	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	16.09	26.82
		U$_5$ - L$_8$	-125.25	-55.20	0.00			0.90	1.00	0.00	-49.68	0.00	0.00	Vehicle	Vehicle	------	-270.46	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	------	------	15.75	------	------	36.00	45.00	Pass	8.89	12.00	Pass	------	------	------	------	------	4.90	8.16
		U$_6$ - L$_9$	-174.53	-85.45	0.00			0.90	1.00	0.00	-76.91	0.00	0.00	Vehicle	Vehicle	------	-393.53	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	4.03	6.72
		U$_6$ - L$_{10}$	-202.66	-96.19	-0.62			0.90	1.00	-0.56	-86.57	0.00	0.00	Vehicle	Vehicle	------	-451.03	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	------	------	16.48	------	------	20.31	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.99	6.65
		U$_{11}$ - L$_{11}$	-229.53	-109.57	2.55			0.90	1.00	2.30	-98.62	0.00	0.00	Vehicle	Vehicle	------	-512.05	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	------	------	16.48	------	------	20.31	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.26	5.43
		U$_{12}$ - L$_{12}$	-250.85	-116.98	3.84			0.90	1.00	3.45	-105.28	0.00	0.00	Vehicle	Vehicle	------	-554.21	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	------	------	16.48	------	------	18.26	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.14	5.23
		U$_{13}$ - L$_{13}$	-223.32	-107.37	16.46			0.90	1.00	14.82	-96.64	0.00	0.00	Vehicle	Vehicle	------	-499.70	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	------	------	16.32	------	------	20.13	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	2.90	4.83
		U$_{14}$ - L$_{14}$	-343.31	-105.24	-40.19			0.90	1.00	-36.17	-94.72	0.00	0.00	Vehicle	Vehicle	------	-651.52	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	------	------	15.38	------	------	18.31	45.00	Pass	5.68	12.00	Pass	------	------	------	------	------	4.49	7.48
		U$_{15}$ - L$_{15}$	-123.14	20.62	-82.69			0.90	1.00	18.56	-74.42	0.00	0.00	Vehicle	Vehicle	------	-321.33	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	4.57	7.62
		U$_{16}$ - L$_{16}$	-156.70	18.05	-106.72			0.90	1.00	16.25	-96.05	0.00	0.00	Vehicle	Vehicle	------	-411.81	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	3.18	5.30
		U$_{17}$ - L$_{17}$	-147.91	16.07	-107.26			0.90	1.00	14.46	-96.54	0.00	0.00	Vehicle	Vehicle	------	-401.45	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	2.95	4.92
		U$_{18}$ - L$_{18}$	-142.22	10.85	-112.02			0.90	1.00	9.76	-100.81	0.00	0.00	Vehicle	Vehicle	------	-403.32	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	2.59	4.31
		U$_{19}$ - L$_{19}$	-111.48	9.96	-72.84			0.90	1.00	8.96	-65.55	0.00	0.00	Vehicle	Vehicle	------	-286.96	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	------	------	15.75	------	------	31.50	45.00	Pass	10.00	12.00	Pass	------	------	------	------	------	3.66	6.10
		U$_{20}$ - L$_{20}$	-76.55	4.68	-60.11			0.90	1.00	4.21	-54.10	0.00	0.00	Vehicle	Vehicle	------	-216.73	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	------	3.31	5.52
		U$_{21}$ - L$_{21}$	-44.31	0.64	-48.15			0.90	1.00	0.57	-43.33	0.00	0.00	Vehicle	Vehicle	------	-151.49	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	4.10	6.84
		U$_{22}$ - L$_{22}$	-21.25	-12.72	-12.28			0.90	1.00	-11.05	-11.45	0.00	0.00	Vehicle	Vehicle	------	-52.43	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	16.80	28.00
		U$_{23}$ - L$_{23}$	-39.07	-38.07	2.20			0.90	1.00	1.98	-34.26	0.00	0.00	Vehicle	Vehicle	------	-125.02	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	5.28	8.80
		U$_{24}$ - L$_{24}$	-74.84	-60.42	2.40			0.90	1.00	2.16	-54.38	0.00	0.00	Vehicle	Vehicle	------	-215.12	0.00	16.85	16.8486	556.00	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	------	3.31	5.52
		U$_{25}$ - L$_{25}$	-103.27	-76.63	6.10			0.90	1.00	5.49	-68.97	0.00	0.00	Vehicle	Vehicle	------	-283.68	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	------	------	15.75	------	------	31.50	45.00	Pass	10.00	12.00	Pass	------	------	------	------	------	3.55	5.92
		U$_{26}$ - L$_{26}$	-120.22	-87.15	6.18			0.90	1.00	5.56	-78.44	0.00	0.00	Vehicle	Vehicle	------	-326.23	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	3.50	5.83
		U$_{27}$ - L$_{27}$	-123.93	-110.81	10.41			0.90	1.00	9.37	-99.73	0.00	0.00	Vehicle	Vehicle	------	-377.19	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.00	5.01
		U$_{28}$ - L$_{28}$	-135.60	-122.52	11.07			0.90	1.00	9.96	-110.26	0.00	0.00	Vehicle	Vehicle	------	-415.18	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	2.89	4.81
		U$_{29}$ - L$_{29}$	-116.87	-98.98	13.29			0.90	1.00	11.96	-89.08	0.00	0.00	Vehicle	Vehicle	------	-344.95	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	3.86	6.44
		U$_{30}$ - L$_{30}$	-262.02	-83.62	-56.38			0.90	1.00	-50.74	-75.26	0.00	0.00	Vehicle	Vehicle	------	-503.68	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	------	------	15.38	------	------	18.31	45.00	Pass	5.68	12.00	Pass	------	------	------	------	------	6.30	10.49
		U$_{31}$ - L$_{31}$	-156.38	18.34	-94.14			0.90	1.00	16.50	-84.73	0.00	0.00	Vehicle	Vehicle	------	-386.86	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	------	------	16.32	------	------	20.13	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	3.78	6.30
		U$_{32}$ - L$_{32}$	-185.51	11.91	-118.50			0.90	1.00	10.72	-106.65	0.00	0.00	Vehicle	Vehicle	------	-472.24	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	------	------	16.48	------	------	18.26	45.00	Pass	6.06

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL_{max} (kips)	LL_{min} (kips)	Pedestrian $Load_{MAX}$	Pedestrian $Load_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL_{MAX}	Lane Reduction and Impact LL_{MIN}	Impact & Pedestrian $Load_{MAX}$	Impact & Pedestrian $Load_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A_{deduct} (in^2) **	A_{gross} (in^2)	A_{net} (in^2)	$C_{Nominal}$ (kips)	Member Capacity in Compression: C_c	L (feet)	r_{min} (in)	KL/r_{min} ***	F_{crit} **** (ksi)	$C_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Diagonals	Structure 1	U_1 - L_1	87.33	-26.79	74.40			0.90	1.00	66.96	-24.11	0.00	0.00	Vehicle	Vehicle	258.61	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	4.47	7.45	-----	-----
		U_2 - L_2	23.35	-26.61	57.71			0.90	1.00	51.94	-23.95	0.00	0.00	Vehicle	Vehicle	142.89	-21.55	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	4.67	7.78	8.99	14.98
		U_3 - L_3	-37.85	-25.67	37.47			0.90	1.00	33.72	-23.10	0.00	0.00	Vehicle	Vehicle	23.86	-99.26	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	8.28	13.81	7.70	12.83
		U_4 - L_4	-92.19	-24.68	11.57			0.90	1.00	10.41	-22.21	0.00	0.00	Vehicle	Vehicle	-----	-167.98	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.60	10.99
		U_5 - L_4	143.37	16.69	71.53			0.90	1.00	64.37	15.02	0.00	0.00	Vehicle	Vehicle	325.85	-----	0.00	20.66	20.6644	681.93	131.71	11.6953	2.0011	52.60	30.37	-533.41	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	3.55	5.92	-----	-----
		U_6 - L_5	177.90	13.79	83.70			0.90	1.00	75.33	12.41	0.00	0.00	Vehicle	Vehicle	394.48	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	3.77	6.28	-----	-----
		U_7 - L_6	184.42	2.34	98.06			0.90	1.00	88.25	2.11	0.00	0.00	Vehicle	Vehicle	430.96	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	3.17	5.28	-----	-----
		U_8 - L_7	180.02	-3.28	91.91			0.90	1.00	82.72	-2.95	0.00	0.00	Vehicle	Vehicle	413.25	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	3.41	5.69	-----	-----
		U_9 - L_8	268.98	3.42	88.93			0.90	1.00	80.04	3.07	0.00	0.00	Vehicle	Vehicle	523.08	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	5.20	8.66	-----	-----
		U_{10} - L_9	278.85	-10.29	94.03			0.90	1.00	84.63	-9.26	0.00	0.00	Vehicle	Vehicle	545.87	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	4.85	8.08	-----	-----
		U_{11} - L_{10}	285.04	10.78	98.67			0.90	1.00	88.80	9.70	0.00	0.00	Vehicle	Vehicle	562.96	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	4.23	7.05	-----	-----
		U_{12} - L_{12}	250.60	-3.16	90.39			0.90	1.00	81.35	-2.84	0.00	0.00	Vehicle	Vehicle	502.03	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	3.89	6.48	-----	-----
		U_{13} - L_{13}	189.65	-0.33	92.56			0.90	1.00	83.30	-0.30	0.00	0.00	Vehicle	Vehicle	427.04	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	3.18	5.30	-----	-----
		U_{13} - L_{14}	123.32	0.57	69.90			0.90	1.00	62.91	0.51	0.00	0.00	Vehicle	Vehicle	296.63	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	2.90	4.84	-----	-----
		U_{14} - L_{14}	-24.41	-16.75	24.05			0.90	1.00	21.64	-15.07	0.00	0.00	Vehicle	Vehicle	15.16	-64.39	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	12.00	Pass	38.97	45.00	Pass	6.56	12.00	Pass	20.67	20.67	12.10	12.53	20.89	12.10	20.16
		U_{15} - L_{15}	48.53	-15.57	48.15			0.90	1.00	43.33	-14.01	0.00	0.00	Vehicle	Vehicle	156.98	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	5.25	8.75	-----	-----
		U_{16} - L_{16}	146.59	-16.25	83.10			0.90	1.00	74.79	-14.63	0.00	0.00	Vehicle	Vehicle	352.62	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	3.03	5.05	-----	-----
		U_{17} - L_{17}	182.46	-13.95	88.95			0.90	1.00	80.06	-12.56	0.00	0.00	Vehicle	Vehicle	410.65	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	3.51	5.85	-----	-----
		U_{18} - L_{18}	223.82	-11.69	93.79			0.90	1.00	84.41	-10.52	0.00	0.00	Vehicle	Vehicle	473.87	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	3.46	5.76	-----	-----
		U_{20} - L_{19}	232.72	-5.25	25.16			0.90	1.00	22.64	-4.72	0.00	0.00	Vehicle	Vehicle	351.60	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	12.65	21.09	-----	-----
	Structure 2	U_1 - L_1	213.54	-17.37	89.02			0.90	1.00	80.12	-15.63	0.00	0.00	Vehicle	Vehicle	451.19	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	4.22	7.04	-----	-----
		U_1 - L_2	200.48	-20.35	91.14			0.90	1.00	82.02	-18.32	0.00	0.00	Vehicle	Vehicle	438.34	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	4.22	7.04	-----	-----
		U_3 - L_3	172.81	-22.57	86.52			0.90	1.00	77.86	-20.32	0.00	0.00	Vehicle	Vehicle	393.36	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	3.68	6.14	-----	-----
		U_3 - L_4	147.16	-26.41	83.09			0.90	1.00	74.78	-23.77	0.00	0.00	Vehicle	Vehicle	353.34	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	3.45	5.75	-----	-----
		U_5 - L_5	49.10	-25.97	63.00			0.90	1.00	56.70	-23.37	0.00	0.00	Vehicle	Vehicle	186.68	-----	0.00	16.85	16.8486	556.00	131.71	15.3992	1.9682	70.41	28.25	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	4.01	6.68	-----	-----
		U_6 - L_6	2.96	-27.00	50.86			0.90	1.00	45.78	-24.30	0.00	0.00	Vehicle	Vehicle	103.04	-48.80	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	5.57	9.28	8.12	13.53
		U_6 - L_7	-85.74	-23.86	12.88			0.90	1.00	11.59	-21.47	0.00	0.00	Vehicle	Vehicle	-----	-157.99	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	7.64	12.74
		U_7 - L_7	140.30	0.00	51.07			0.90	1.00	45.96	0.00	0.00	0.00	Vehicle	Vehicle	281.98	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	6.04	10.07	-----	-----
		U_8 - L_8	204.22	3.63	86.53			0.90	1.00	77.87	3.27	0.00	0.00	Vehicle	Vehicle	434.20	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	3.90	6.50	-----	-----
		U_9 - L_9	234.87	12.01	103.62			0.90	1.00	93.26	10.81	0.00	0.00	Vehicle	Vehicle	507.39	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	3.49	5.82	-----	-----
		U_{11} - L_{10}	263.10	-1.78	120.14			0.90	1.00	108.12	-1.60	0.00	0.00	Vehicle	Vehicle	576.30	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	3.23	5.38	-----	-----
		U_{11} - L_{11}	274.02	-3.20	119.85			0.90	1.00	107.86	-2.88	0.00	0.00	Vehicle	Vehicle	589.92	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	3.17	5.29	-----	-----
		U_{13} - L_{12}	254.94	-16.78	117.68			0.90	1.00	105.91	-15.10	0.00	0.00	Vehicle	Vehicle	560.90	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	2.96	4.93	-----	-----
		U_{13} - L_{13}	217.71	-20.92	103.48			0.90	1.00	93.13	-18.83	0.00	0.00	Vehicle	Vehicle	484.80	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	3.61	6.01	-----	-----
		U_{15} - L_{15}	110.05	-13.71	59.40			0.90	1.00	53.46	-12.34	0.00	0.00	Vehicle	Vehicle	258.90	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	6.07	10.11	-----	-----
		U_{16} - L_{16}	132.30	-23.18	87.25			0.90	1.00	78.52	-20.86	0.00	0.00	Vehicle	Vehicle	342.12	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	3.96	6.60	-----	-----
		U_{17} - L_{17}	172.89	-17.70	112.70			0.90	1.00	101.43	-15.93	0.00	0.00	Vehicle	Vehicle	444.53	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	3.18	5.30	-----	-----
		U_{17} - L_{18}	160.19	-18.54	114.66			0.90	1.00	103.19	-16.69	0.00	0.00	Vehicle	Vehicle	431.82	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	2.85	4.75	-----	-----
		U_{19} - L_{19}	152.35	-11.04	71.59			0.90	1.00	64.43	-9.93	0.00	0.00	Vehicle	Vehicle	337.66	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	4.64	7.73	-----	-----
		U_{19} - L_{20}	120.69	-11.46	78.62			0.90	1.00	70.76	-10.31	0.00	0.00	Vehicle	Vehicle	310.21	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	4.09	6.82	-----	-----
		U_{20} - L_{21}	76.08	-6.02	64.53			0.90	1.00	58.07	-5.42	0.00	0.00	Vehicle	Vehicle	224.73	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	3.63	6.05	-----	-----
		U_{21} - L_{22}	31.46	-5.43	42.89			0.90	1.00	38.60	-4.89	0.00	0.00	Vehicle	Vehicle	124.53	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	6.16	10.27	-----	-----
		U_{23} - L_{22}	24.30	-2.83	28.63			0.90	1.00	25.76	-2.54	0.00	0.00	Vehicle	Vehicle	87.41	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	9.39	15.66	-----	-----
		U_{23} - L_{23}	72.26	-3.84	53.28			0.90	1.00	47.95	-3.46	0.00	0.00	Vehicle	Vehicle	197.84	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.35	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	4.45	7.41	-----	-----
		U_{24} - L_{24}	112.13	-7.94	82.52			0.90	1.00	74.27	-7.15	0.00	0.00	Vehicle	Vehicle	306.68	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	3.97	6.61	-----	-----
		U_{25} - L_{25}	127.84	-7.99	92.97			0.90	1.00	83.67	-7.19	0.00	0.00	Vehicle	Vehicle	347.48	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	3.75	6.25	-----	-----
		U_{25} - L_{26}	132.67	-12.19	119.95			0.90	1.00	107.96	-10.97	0.00	0.00	Vehicle	Vehicle	406.37	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	2.88	4.80	-----	-----
		U_{27} - L_{27}	137.94	-12.33	120.23			0.90	1.00	108.21	-11.10	0.00	0.00	Vehicle	Vehicle	413.78	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	3.17	5.29	-----	-----
		U_{28} - L_{28}	122.80	-14.79	107.72			0.90	1.00	96.94	-13.31	0.00	0.00	Vehicle	Vehicle	369.68	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	3.27	5.44	-----	-----
		U_{29} - L_{29}	102.75	-18.93	78.70			0.90	1.00	70.83	-17.03	0.00	0.00	Vehicle	Vehicle	287.04	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	4.64	7.74	-----	-----
		U_{30} - L_{31}	140.07	-9.76	73.14			0.90	1.00	65.82	-8.79	0.00	0.00	Vehicle	Vehicle	324.70	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	5.81	9.68	-----	-----
		U_{31} - L_{32}	167.39	-20.60	101.86			0.90	1.00	91.67	-18.54	0.00	0.00	Vehicle	Vehicle	416.23	-----	0.00	30.63	30.6305	1010.81	131.71	17.8750	2.8427	56.59	29.95	-779.87	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	3.99	6.66	-----	-----
		U_{32} - L_{33}	202.10	-11.05	124.72			0.90	1.00	112.25	-9.94	0.00	0.00	Vehicle	Vehicle	505.94	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	3.43	5.72	-----	-----
		U_{33} - L_{34}	201.91	-11.13	102.59			0.90	1.00	92.33	-10.02	0.00	0.00	Vehicle	Vehicle	462.54	-----	0.00	33.27	33.2657	1097.77	131.71	14.5729	2.8573	45.90	31.00	-876.43	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	4.18	6.96	-----	-----
		U_{35} - L_{35}	180.76	-1.29	98.79			0.90	1.00	88.91	-1.16	0.00	0.00	Vehicle	Vehicle	427.53	-----	0.00	30.63	30.6305	1010.81	131.71	13.7604	2.8427

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Artic
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL_{max} (kips)	LL_{min} (kips)	Pedestrian $Load_{MAX}$	Pedestrian $Load_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL_{MAX}	Lane Reduction and Impact LL_{MIN}	Impact & Pedestrian $Load_{MAX}$	Impact & Pedestrian $Load_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A_{deduct} (in^2) **	A_{gross} (in^2)	A_{net} (in^2)	$C_{Nominal}$ (kips)	Member Capicity in Compression: C_c	L (feet)	r_{min} (in)	KL/r_{min} ***	F_{crit} **** (ksi)	$C_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Upper Chord	Structure 1	U_0 - U_1	-52.64	-45.41	-51.67			0.75	1.00	-34.06	-38.75	0.00	0.00	Vehicle	Vehicle	-----	-152.39	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	7.94	13.23
		U_1 - U_2	-61.57	28.01	-83.14			0.75	1.00	21.01	-62.36	0.00	0.00	Vehicle	Vehicle	-----	-215.15	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	4.85	8.08
		U_2 - U_3	-26.99	49.46	-94.46			0.75	1.00	37.10	-70.85	0.00	0.00	Vehicle	Vehicle	45.29	-188.59	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	11.29	18.82	4.56	7.60
		U_3 - U_4	32.92	62.88	-114.09			0.75	1.00	47.16	-85.57	0.00	0.00	Vehicle	Vehicle	144.98	-142.60	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	8.12	13.53	4.19	6.99
		U_4 - U_5	34.77	63.15	-113.49			0.75	1.00	47.36	-85.12	0.00	0.00	Vehicle	Vehicle	147.83	-139.22	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	8.06	13.43	4.23	7.05
		U_5 - U_6	124.13	73.53	-69.56			0.75	1.00	55.14	-52.17	0.00	0.00	Vehicle	Vehicle	280.85	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	5.95	9.92	-----	-----
		U_6 - U_7	223.19	87.79	-30.26			0.75	1.00	65.84	-22.70	0.00	0.00	Vehicle	Vehicle	432.80	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	5.30	8.83	-----	-----
		U_7 - U_8	331.76	93.32	24.36			0.75	1.00	69.99	18.27	0.00	0.00	Vehicle	Vehicle	582.93	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	6.67	11.12	-----	-----
		U_8 - U_9	267.61	121.04	0.00			0.75	1.00	90.78	0.00	0.00	0.00	Vehicle	Vehicle	544.59	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	4.44	7.39	-----	-----
		U_9 - U_{10}	89.12	57.97	0.00			0.75	1.00	43.48	0.00	0.00	0.00	Vehicle	Vehicle	210.05	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	-----	-----	42.67	-----	-----	10.67	-----	-----	8.56	14.26	-----	-----
		U_{10} - U_{11}	-76.81	-8.01	0.00			0.75	1.00	0.00	-6.00	0.00	0.00	Vehicle	Vehicle	-----	-112.86	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	52.02	86.70	-----	-----
		U_{11} - U_{12}	-230.69	46.15	-112.41			0.75	1.00	34.61	-84.31	0.00	0.00	Vehicle	Vehicle	-----	-482.55	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	4.14	6.90
		U_{12} - U_{13}	-341.88	38.30	-143.43			0.75	1.00	28.73	-107.57	0.00	0.00	Vehicle	Vehicle	-----	-677.51	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	4.44	7.40
		U_{13} - U_{14}	-421.62	31.79	-182.82			0.75	1.00	23.85	-137.12	0.00	0.00	Vehicle	Vehicle	-----	-845.19	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.96	6.61
		U_{14} - U_{15}	-422.51	31.65	-194.54			0.75	1.00	23.74	-145.90	0.00	0.00	Vehicle	Vehicle	-----	-865.38	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.72	6.20
		U_{15} - U_{16}	-439.94	24.52	-143.49			0.75	1.00	18.39	-107.62	0.00	0.00	Vehicle	Vehicle	-----	-805.10	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	4.95	8.25
		U_{16} - U_{17}	-422.43	18.42	-166.09			0.75	1.00	13.82	-124.57	0.00	0.00	Vehicle	Vehicle	-----	-819.05	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	4.36	7.27
		U_{17} - U_{18}	-340.94	12.25	-110.58			0.75	1.00	9.19	-82.94	0.00	0.00	Vehicle	Vehicle	-----	-622.92	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	45.00	Pass	32.00	50.00	Pass	8.00	12.00	Pass	-----	-----	4.56	7.59
		U_{18} - U_{19}	-247.15	7.37	-78.84			0.75	1.00	5.53	-59.13	0.00	0.00	Vehicle	Vehicle	-----	-449.40	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	4.37	7.28
		U_{19} - U_{20}	-131.71	2.95	-37.28			0.75	1.00	2.21	-27.96	0.00	0.00	Vehicle	Vehicle	-----	-231.80	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	11.71	19.52
	Structure 2	U_0 - U_1	-131.51	-37.66	8.45			0.75	1.00	6.34	-28.24	0.00	0.00	Vehicle	Vehicle	-----	-232.15	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	10.96	18.27
		U_1 - U_2	-247.03	17.28	-58.09			0.75	1.00	12.96	-43.57	0.00	0.00	Vehicle	Vehicle	-----	-415.53	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	7.50	12.49
		U_2 - U_3	-347.15	-119.23	-77.38			0.75	1.00	-58.04	-89.42	0.00	0.00	Vehicle	Vehicle	-----	-645.05	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.69	4.00	0.69	16.00	95.35	272.00	30.22	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	4.90	8.17
		U_3 - U_4	-437.07	55.40	-185.42			0.75	1.00	41.55	-139.07	0.00	0.00	Vehicle	Vehicle	-----	-869.49	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.90	6.50
		U_4 - U_5	-468.70	68.28	-207.63			0.75	1.00	51.21	-155.72	0.00	0.00	Vehicle	Vehicle	-----	-946.71	15.14	69.44	54.2975	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.92	6.54
		U_5 - U_6	-471.03	81.13	-217.75			0.75	1.00	60.85	-163.31	0.00	0.00	Vehicle	Vehicle	-----	-966.18	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.73	6.22
		U_6 - U_7	-414.41	90.75	-210.44			0.75	1.00	68.06	-157.83	0.00	0.00	Vehicle	Vehicle	-----	-880.70	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.52	5.87
		U_7 - U_8	-413.45	90.88	-216.10			0.75	1.00	68.16	-162.07	0.00	0.00	Vehicle	Vehicle	-----	-888.64	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.44	5.73
		U_8 - U_9	-321.98	99.60	-173.87			0.75	1.00	74.70	-130.40	0.00	0.00	Vehicle	Vehicle	-----	-701.11	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	3.70	6.17
		U_9 - U_{10}	-182.11	104.57	-164.10			0.75	1.00	78.43	-123.07	0.00	0.00	Vehicle	Vehicle	-----	-503.39	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	3.43	5.72
		U_{10} - U_{11}	-32.58	110.15	-113.10			0.75	1.00	82.62	-84.83	0.00	0.00	Vehicle	Vehicle	136.65	-226.14	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	6.85	11.42	5.21	8.69
		U_{11} - U_{12}	133.59	112.79	55.54			0.75	1.00	84.59	41.66	0.00	0.00	Vehicle	Vehicle	356.95	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	5.51	9.19	-----	-----
		U_{12} - U_{13}	289.99	111.51	-11.50			0.75	1.00	83.63	-8.62	0.00	0.00	Vehicle	Vehicle	558.18	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	6.09	10.15	-----	-----
		U_{13} - U_{14}	434.76	108.53	157.25			0.75	1.00	117.94	81.40	0.00	0.00	Vehicle	Vehicle	820.73	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.75	9.58	-----	-----
		U_{14} - U_{15}	474.45	170.41	0.00			0.75	1.00	127.81	0.00	0.00	0.00	Vehicle	Vehicle	893.70	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.12	8.53	-----	-----
		U_{15} - U_{16}	383.28	63.37	14.43			0.75	1.00	47.53	10.82	0.00	0.00	Vehicle	Vehicle	601.24	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	11.22	18.71	-----	-----
		U_{16} - U_{17}	279.57	71.14	0.00			0.75	1.00	53.35	0.00	0.00	0.00	Vehicle	Vehicle	479.04	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	8.60	14.33	-----	-----
		U_{17} - U_{18}	172.63	22.26	-39.35			0.75	1.00	16.70	-29.52	0.00	0.00	Vehicle	Vehicle	260.59	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	21.34	35.56	-----	-----
		U_{18} - U_{19}	74.36	79.70	-20.84			0.75	1.00	59.77	-15.63	0.00	0.00	Vehicle	Vehicle	226.18	-----	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	6.95	11.58	-----	-----
		U_{19} - U_{20}	-10.01	82.58	-111.09			0.75	1.00	61.93	-83.32	0.00	0.00	Vehicle	Vehicle	121.17	-193.54	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.04	13.41	4.92	8.20
	Structure 3	U_0 - U_1	-62.06	82.87	-129.20			0.75	1.00	62.16	-96.90	0.00	0.00	Vehicle	Vehicle	54.00	-290.62	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	10.17	16.95	4.80	7.99
		U_1 - U_2	-88.74	86.25	-148.44			0.75	1.00	64.69	-111.33	0.00	0.00	Vehicle	Vehicle	24.80	-356.56	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	10.02	16.70	4.03	6.72
		U_2 - U_3	-88.92	86.25	-159.53			0.75	1.00	64.69	-119.65	0.00	0.00	Vehicle	Vehicle	24.57	-374.83	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	10.02	16.70	3.75	6.25
		U_3 - U_4	-76.67	80.79	-63.07			0.75	1.00	60.59	-47.30	0.00	0.00	Vehicle	Vehicle	31.61	-202.15	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	10.58	17.63	9.64	16.07
		U_4 - U_5	-37.64	83.82	-123.90			0.75	1.00	62.87	-92.92	0.00	0.00	Vehicle	Vehicle	87.27	-250.27	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.19	13.65	4.23	7.05
		U_5 - U_6	37.23	80.85	-72.10			0.75	1.00	60.63	-54.08	0.00	0.00	Vehicle	Vehicle	179.77	-68.77	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	7.21	12.02	7.60	12.66
		U_6 - U_7	128.02	78.33	11.66			0.75	1.00	58.74	8.74	0.00	0.00	Vehicle	Vehicle	293.70	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	6.52	10.87	-----	-----
		U_7 - U_8	233.68	74.12	3.58			0.75	1.00	55.59	2.69	0.00	0.00	Vehicle	Vehicle	424.22	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	8.75	14.58	-----	-----
		U_8 - U_9	337.65	70.34	116.73			0.75	1.00	87.55	52.76	0.00	0.00	Vehicle	Vehicle	628.63	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	6.41	10.68	-----	-----
		U_9 - U_{10}	437.10	66.10	171.32			0.75	1.00	128.49	49.57	0.00	0.00	Vehicle	Vehicle	846.62	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.26	8.77	-----	-----
		U_{10} - U_{11}	420.53	166.52	0.00			0.75	1.00	124.89	0.00	0.00	0.00	Vehicle	Vehicle	817.28	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.50	9.16	-----	-----
		U_{11} - U_{12}	300.69	97.75	-14.89			0.75	1.00	73.31	-11.17	0.00	0.00	Vehicle	Vehicle	549.74	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane

Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17

Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Artic
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Lower Chord	Structure 1	L$_0$- L$_1$	8.49	3.54	-4.12			0.75	1.00	2.66	-3.09	0.00	0.00	Vehicle	Vehicle	16.79	-----	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**111.60**	**186.01**	-----	-----
		L$_1$ - L$_2$	50.81	0.00	29.20			0.75	1.00	21.90	0.00	0.00	0.00	Vehicle	Vehicle	113.50	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**12.38**	**20.63**	-----	-----
		L$_2$ - L$_3$	61.22	-36.20	79.37			0.75	1.00	59.53	-27.15	0.00	0.00	Vehicle	Vehicle	208.56	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**6.12**	**10.20**	-----	-----
		L$_3$ - L$_4$	25.70	-50.17	90.40			0.75	1.00	67.80	-37.63	0.00	0.00	Vehicle	Vehicle	180.32	-48.12	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	**5.69**	**9.48**	**9.39**	**15.64**
		L$_4$ - L$_5$	-118.45	-72.19	57.33			0.75	1.00	43.00	-54.14	0.00	0.00	Vehicle	Vehicle	-----	-271.30	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**4.23**	**7.05**
		L$_5$ - L$_6$	-217.80	-86.70	21.18			0.75	1.00	15.89	-65.03	0.00	0.00	Vehicle	Vehicle	-----	-424.03	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**4.08**	**6.79**
		L$_6$ - L$_7$	-320.36	-94.19	-27.03			0.75	1.00	-20.28	-70.64	0.00	0.00	Vehicle	Vehicle	-----	-569.52	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**5.30**	**8.84**
		L$_7$ - L$_8$	-417.18	0.00	-180.96			0.75	1.00	0.00	-135.72	0.00	0.00	Vehicle	Vehicle	-----	-836.41	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.46**	**5.76**
		L$_8$ - L$_9$	-410.79	-175.45	0.00			0.75	1.00	0.00	-131.59	0.00	0.00	Vehicle	Vehicle	-----	-819.13	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.60**	**5.99**
		L$_9$ - L$_{10}$	-247.75	-54.72	-66.60			0.75	1.00	-41.04	-49.95	0.00	0.00	Vehicle	Vehicle	-----	-430.30	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**8.38**	**13.97**
		L$_{10}$ - L$_{11}$	-65.21	-65.99	0.00			0.75	1.00	0.00	-49.49	0.00	0.00	Vehicle	Vehicle	-----	-192.01	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**5.28**	**8.79**
		L$_{11}$ - L$_{12}$	101.88	0.67	0.00			0.75	1.00	0.50	0.00	0.00	0.00	Vehicle	Vehicle	133.53	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	**585.86**	**976.43**	-----	-----
		L$_{12}$ - L$_{13}$	264.09	-42.14	110.13			0.75	1.00	82.60	-31.61	0.00	0.00	Vehicle	Vehicle	522.28	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.16**	**8.60**	-----	-----
		L$_{13}$ - L$_{14}$	373.73	108.72	140.97			0.75	1.00	105.73	81.54	0.00	0.00	Vehicle	Vehicle	714.92	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.30**	**8.84**	-----	-----
		L$_{14}$ - L$_{15}$	476.34	-22.93	156.81			0.75	1.00	117.61	-17.20	0.00	0.00	Vehicle	Vehicle	874.06	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.60**	**9.34**	-----	-----
		L$_{15}$ - L$_{16}$	459.97	-16.82	144.97			0.75	1.00	108.73	-12.62	0.00	0.00	Vehicle	Vehicle	833.54	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**6.15**	**10.25**	-----	-----
		L$_{16}$ - L$_{17}$	381.37	-11.01	104.34			0.75	1.00	78.26	-8.26	0.00	0.00	Vehicle	Vehicle	665.34	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	**6.40**	**10.67**	-----	-----
		L$_{17}$ - L$_{18}$	288.98	-6.13	58.97			0.75	1.00	44.22	-4.60	0.00	0.00	Vehicle	Vehicle	471.49	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	**8.06**	**13.44**	-----	-----
		L$_{18}$ - L$_{19}$	176.20	-3.12	21.41			0.75	1.00	16.06	-2.34	0.00	0.00	Vehicle	Vehicle	263.85	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**12.20**	**20.33**	-----	-----
		L$_{19}$ - L$_{20}$	69.74	-0.31	-17.92			0.75	1.00	-0.23	-13.44	0.00	0.00	Vehicle	Vehicle	90.16	-----	1.95	19.80	17.8500	653.40	131.71	10.8073	5.6265	17.41	32.71	-550.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	-----	-----	-----	-----
		L$_0$- L$_1$	24.59	1.46	-2.17			0.75	1.00	1.10	-1.63	0.00	0.00	Vehicle	Vehicle	34.34	-----	1.88	24.95	23.0700	823.35	131.71	10.8828	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**333.11**	**555.18**	-----	-----
		L$_1$ - L$_2$	138.59	50.22	-13.38			0.75	1.00	37.67	-10.04	0.00	0.00	Vehicle	Vehicle	261.78	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**7.88**	**13.14**	-----	-----
		L$_2$ - L$_3$	252.83	64.96	55.67			0.75	1.00	48.72	41.75	0.00	0.00	Vehicle	Vehicle	434.24	-----	6.20	38.45	32.2500	1268.85	131.71	10.7370	6.1675	15.67	32.77	-1070.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	**8.91**	**14.84**	-----	-----
		L$_3$ - L$_4$	352.30	0.00	61.39			0.75	1.00	46.04	0.00	0.00	0.00	Vehicle	Vehicle	557.75	-----	9.45	51.58	42.1250	1701.98	131.71	10.7370	5.7558	16.79	32.73	-1434.93	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	**12.47**	**20.78**	-----	-----
		L$_4$ - L$_5$	447.17	-57.91	184.93			0.75	1.00	138.70	-43.43	0.00	0.00	Vehicle	Vehicle	881.83	-----	11.00	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.90	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.20**	**8.67**	-----	-----
		L$_5$ - L$_6$	477.93	-70.77	206.87			0.75	1.00	155.15	-53.08	0.00	0.00	Vehicle	Vehicle	957.47	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.08**	**8.47**	-----	-----
		L$_6$ - L$_7$	482.68	-83.60	216.57			0.75	1.00	162.43	-62.70	0.00	0.00	Vehicle	Vehicle	979.41	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	**4.93**	**8.22**	-----	-----
		L$_7$ - L$_8$	336.61	-101.73	180.70			0.75	1.00	135.53	-76.29	0.00	0.00	Vehicle	Vehicle	731.24	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	**4.45**	**7.42**	-----	-----
		L$_8$ - L$_9$	196.05	-106.13	151.50			0.75	1.00	113.62	-79.60	0.00	0.00	Vehicle	Vehicle	501.05	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	**4.77**	**7.95**	-----	-----
		L$_9$ - L$_{10}$	45.60	-110.80	98.66			0.75	1.00	74.00	-83.10	0.00	0.00	Vehicle	Vehicle	219.60	-120.78	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	**6.62**	**11.03**	**5.58**	**9.30**
		L$_{10}$ - L$_{11}$	-126.26	-113.66	51.30			0.75	1.00	38.47	-85.25	0.00	0.00	Vehicle	Vehicle	-----	-348.83	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.78	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.69**	**6.15**
		L$_{11}$ - L$_{12}$	-284.87	-113.52	-133.00			0.75	1.00	-85.14	-99.75	0.00	0.00	Vehicle	Vehicle	-----	-586.45	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.88**	**6.47**
		L$_{12}$ - L$_{13}$	-433.79	-111.36	-38.32			0.75	1.00	-28.74	-83.52	0.00	0.00	Vehicle	Vehicle	-----	-744.89	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**6.05**	**10.08**
		L$_{13}$ - L$_{14}$	-552.65	0.00	-210.95			0.75	1.00	0.00	-158.21	0.00	0.00	Vehicle	Vehicle	-----	-1061.24	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.65**	**6.08**
		L$_{14}$ - L$_{15}$	-573.48	-221.32	0.00			0.75	1.00	0.00	-165.99	0.00	0.00	Vehicle	Vehicle	-----	-1105.16	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.40**	**5.67**
		L$_{15}$ - L$_{16}$	-492.94	-82.55	-179.06			0.75	1.00	-61.92	-134.29	0.00	0.00	Vehicle	Vehicle	-----	-931.79	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.50**	**5.83**
		L$_{16}$ - L$_{17}$	-395.30	-144.23	0.00			0.75	1.00	0.00	-108.17	0.00	0.00	Vehicle	Vehicle	-----	-748.27	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.62**	**6.03**
		L$_{17}$ - L$_{18}$	-288.04	-85.79	0.00			0.75	1.00	0.00	-64.34	0.00	0.00	Vehicle	Vehicle	-----	-513.86	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**4.10**	**6.83**
		L$_{18}$ - L$_{19}$	-175.85	-82.07	37.66			0.75	1.00	28.25	-61.55	0.00	0.00	Vehicle	Vehicle	-----	-361.97	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.88**	**6.46**
		L$_{19}$ - L$_{20}$	-78.08	-84.19	56.50			0.75	1.00	42.37	-63.14	0.00	0.00	Vehicle	Vehicle	-----	-238.31	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.71**	**7.85**
	Structure 2	L$_{20}$ - L$_{21}$	7.55	-88.77	113.19			0.75	1.00	84.89	-66.58	0.00	0.00	Vehicle	Vehicle	193.76	-134.43	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.76**	**11.27**	**7.41**	**12.34**
		L$_{21}$ - L$_{22}$	59.07	-89.03	59.38			0.75	1.00	44.54	-66.77	0.00	0.00	Vehicle	Vehicle	173.28	-67.89	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**12.20**	**20.33**	**7.85**	**13.08**
		L$_{22}$ - L$_{23}$	71.98	-86.84	127.26			0.75	1.00	95.45	-65.13	0.00	0.00	Vehicle	Vehicle	300.38	-47.54	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**5.61**	**9.35**	**8.16**	**13.61**
		L$_{23}$ - L$_{24}$	33.55	-85.69	109.80			0.75	1.00	82.35	-64.26	0.00	0.00	Vehicle	Vehicle	222.03	-95.63	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.78**	**11.31**	**7.92**	**13.19**
		L$_{24}$ - L$_{25}$	-45.09	-81.80	71.47			0.75	1.00	53.60	-61.35	0.00	0.00	Vehicle	Vehicle	57.53	-191.53	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**8.11**	**13.51**	**5.17**	**8.62**
		L$_{25}$ - L$_{26}$	-134.94	-79.38	26.44			0.75	1.00	19.83	-59.54	0.00	0.00	Vehicle	Vehicle	-----	-304.41	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.42**	**7.37**
		L$_{26}$ - L$_{27}$	-245.90	-74.68	-82.05			0.75	1.00	-56.01	-61.54	0.00	0.00	Vehicle	Vehicle	-----	-453.00	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**4.70**	**7.83**
		L$_{27}$ - L$_{28}$	-351.78	-71.06	-59.81			0.75	1.00	-44.86	-53.29	0.00	0.00	Vehicle	Vehicle	-----	-572.78	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**7.83**	**13.06**
		L$_{28}$ - L$_{29}$	-458.29	-68.18	-176.76			0.75	1.00	-51.14	-132.57	0.00	0.00	Vehicle	Vehicle	-----	-883.01	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.70**	**6.16**
		L$_{29}$ - L$_{30}$	-542.18	0.00	-216.94			0.75	1.00	0.00	-162.71	0.00	0.00	Vehicle	Vehicle	-----	-1057.36	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.59**	**5.98**
		L$_{30}$ - L$_{31}$	-514.03	-224.20	0.00			0.75	1.00	0.00	-168.15	0.00	0.00	Vehicle	Vehicle	-----	-1032.56	11.98	70.85	58.8700	2338.05	131.71	11.1432	5.6285	17.82	32.70	-1969.16	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.57**	**5.95**
		L$_{31}$ - L$_{32}$	-411.21	0.00	-177.44			0.75	1.00	0.00	-133.08	0.00	0.00	Vehicle	Vehicle	-----	-822.91	9.73	59.60	49.8700	1966.80	131.71	11.1432	5.8413	17.17	32.72	-1657.58	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Axial Force Rating

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Verticals	Structure 1																																															
	U$_0$ - L$_0$	-67.60	15.33	-58.71			0.75	1.00	11.50	-44.03	0.00	0.00	Vehicle	Vehicle	-----	-183.28	1.63	16.85	15.2186	556.00	131.71	9.3438	1.9682	42.73	31.26	-447.73	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	3.77	6.29
	U$_1$ - L$_1$	-24.06	14.90	-42.81			0.75	1.00	11.18	-32.11	0.00	0.00	Vehicle	Vehicle	-----	-100.85	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.13	10.21
	U$_2$ - L$_2$	12.88	12.30	-34.53			0.75	1.00	9.23	-25.90	0.00	0.00	Vehicle	Vehicle	36.73	-39.38	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	26.97	44.95	8.45	14.09
	U$_3$ - L$_3$	37.35	13.22	-24.59			0.75	1.00	9.91	-18.44	0.00	0.00	Vehicle	Vehicle	70.03	-----	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	23.63	39.38	-----	-----
	U$_4$ - L$_4$	-15.53	-74.59	0.00			0.75	1.00	0.00	-55.94	0.00	0.00	Vehicle	Vehicle	-----	-141.41	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	3.59	5.98
	U$_5$ - L$_5$	-92.52	-80.09	0.00			0.75	1.00	0.00	-60.07	0.00	0.00	Vehicle	Vehicle	-----	-250.42	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	3.32	5.54
	U$_6$ - L$_6$	-117.01	-86.20	0.00			0.75	1.00	0.00	-64.65	0.00	0.00	Vehicle	Vehicle	-----	-292.19	3.13	24.86	21.7294	820.36	131.71	9.9479	2.0895	42.85	31.25	-660.40	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	3.63	6.05
	U$_7$ - L$_7$	-127.49	-90.32	0.00			0.75	1.00	0.00	-67.74	0.00	0.00	Vehicle	Vehicle	-----	-312.50	2.88	23.11	20.2294	762.61	131.71	11.7292	2.0414	51.71	30.46	-598.26	16.25	0.44	10.00	0.50	-----	-----	16.25	-----	-----	37.14	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	2.95	4.91
	U$_8$ - L$_8$	-368.60	-92.55	-101.35			0.75	1.00	-69.41	-76.01	0.00	0.00	Vehicle	Vehicle	-----	-643.88	3.28	51.42	48.1423	1696.94	131.71	16.6563	4.0363	37.14	31.69	-1385.05	15.25	0.82	15.64	1.31	-----	-----	15.25	-----	-----	18.60	45.00	Pass	5.96	12.00	Pass	-----	-----	-----	-----	-----	5.50	9.17
	U$_9$ - L$_9$	-214.45	0.00	-88.01			0.75	1.00	0.00	-66.01	0.00	0.00	Vehicle	Vehicle	-----	-421.81	3.50	31.56	28.0625	1041.56	131.71	12.1563	2.5582	42.77	31.26	-838.65	16.25	0.50	12.00	0.63	-----	-----	16.25	-----	-----	32.50	45.00	Pass	9.60	12.00	Pass	-----	-----	-----	-----	-----	3.91	6.52
	U$_{10}$ - L$_{10}$	-198.57	0.00	-92.68			0.75	1.00	0.00	-69.51	0.00	0.00	Vehicle	Vehicle	-----	-408.73	2.76	36.13	33.3715	1192.34	131.71	10.7083	2.3777	40.53	31.44	-965.49	16.16	0.83	11.50	0.80	-----	-----	16.16	-----	-----	19.50	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	4.70	7.83
	U$_{11}$ - L$_{11}$	-171.30	0.00	-83.58			0.75	1.00	0.00	-62.69	0.00	0.00	Vehicle	Vehicle	-----	-358.51	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.50	7.50
	U$_{12}$ - L$_{12}$	-128.27	0.00	-75.59			0.75	1.00	0.00	-56.69	0.00	0.00	Vehicle	Vehicle	-----	-289.58	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	-----	-----	16.25	-----	-----	32.50	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	4.28	7.13
	U$_{13}$ - L$_{13}$	-96.55	0.00	-65.20			0.75	1.00	0.00	-48.90	0.00	0.00	Vehicle	Vehicle	-----	-231.46	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	3.48	5.81
	U$_{14}$ - L$_{14}$	-11.04	-43.77	-41.93			0.75	1.00	-31.45	-32.82	0.00	0.00	Vehicle	Vehicle	-----	-85.48	0.00	16.85	16.8486	556.00	131.71	9.2605	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.10	10.17
	U$_{15}$ - L$_{15}$	-2.54	-38.74	7.61			0.75	1.00	5.71	-29.06	0.00	0.00	Vehicle	Vehicle	9.07	-66.25	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	45.20	75.34	7.03	11.72
	U$_{16}$ - L$_{16}$	-31.31	-45.03	6.69			0.75	1.00	5.02	-33.77	0.00	0.00	Vehicle	Vehicle	-----	-113.88	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.51	9.18
	U$_{17}$ - L$_{17}$	-105.02	-68.19	7.36			0.75	1.00	5.52	-51.14	0.00	0.00	Vehicle	Vehicle	-----	-247.32	0.00	20.66	20.6644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	3.59	5.99
	U$_{18}$ - L$_{18}$	-126.66	-71.27	6.02			0.75	1.00	4.51	-53.45	0.00	0.00	Vehicle	Vehicle	-----	-280.46	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	4.48	7.46
	U$_{19}$ - L$_{19}$	-166.54	-73.67	5.53			0.75	1.00	4.15	-55.25	0.00	0.00	Vehicle	Vehicle	-----	-336.21	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.88	8.14
	U$_{20}$ - L$_{20}$	-184.30	-81.77	5.12			0.75	1.00	3.84	-61.33	0.00	0.00	Vehicle	Vehicle	-----	-372.46	0.00	30.63	30.6305	1010.81	131.71	20.3229	2.8427	64.34	29.06	-756.66	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.89	6.49
	Structure 2																																															
	U$_0$ - L$_0$	-203.39	18.80	-96.91			0.75	1.00	14.10	-72.68	0.00	0.00	Vehicle	Vehicle	-----	-421.88	0.00	33.27	33.2657	1097.77	131.71	19.1510	2.8573	60.32	29.54	-835.23	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.62	6.04
	U$_1$ - L$_1$	-176.11	20.53	-88.28			0.75	1.00	15.40	-66.21	0.00	0.00	Vehicle	Vehicle	-----	-372.40	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	4.50	7.50
	U$_2$ - L$_2$	-137.45	19.65	-74.52			0.75	1.00	14.73	-55.89	0.00	0.00	Vehicle	Vehicle	-----	-299.78	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.69	7.82
	U$_3$ - L$_3$	-117.61	20.68	-65.22			0.75	1.00	15.51	-48.92	0.00	0.00	Vehicle	Vehicle	-----	-258.88	0.00	22.73	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	45.00	Pass	4.91	12.00	Pass	-----	-----	-----	-----	-----	4.10	6.83
	U$_4$ - L$_4$	-50.97	16.35	-46.87			0.75	1.00	12.26	-35.15	0.00	0.00	Vehicle	Vehicle	-----	-142.42	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	4.92	8.20
	U$_5$ - L$_5$	-13.79	16.11	-39.71			0.75	1.00	12.08	-29.78	0.00	0.00	Vehicle	Vehicle	8.26	-82.46	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	21.92	36.54	6.58	10.97
	U$_6$ - L$_6$	45.46	12.78	-24.02			0.75	1.00	9.59	-18.01	0.00	0.00	Vehicle	Vehicle	79.86	-----	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	23.93	39.88	-----	-----
	U$_7$ - L$_7$	-22.33	-9.71	0.00			0.75	1.00	0.00	-7.28	0.00	0.00	Vehicle	Vehicle	-----	-44.81	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	26.22	43.70
	U$_8$ - L$_8$	-120.06	-55.16	0.00			0.75	1.00	0.00	-41.37	0.00	0.00	Vehicle	Vehicle	-----	-245.71	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	-----	-----	15.75	-----	-----	36.00	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	5.95	9.92
	U$_9$ - L$_9$	-177.00	-65.81	0.00			0.75	1.00	0.00	-49.36	0.00	0.00	Vehicle	Vehicle	-----	-337.04	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	6.25	10.42
	U$_{10}$ - L$_{10}$	-205.85	-84.28	0.00			0.75	1.00	0.00	-63.21	0.00	0.00	Vehicle	Vehicle	-----	-404.57	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	5.44	9.06
	U$_{11}$ - L$_{11}$	-239.21	-123.00	0.00			0.75	1.00	0.00	-92.25	0.00	0.00	Vehicle	Vehicle	-----	-510.85	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.42	5.70
	U$_{12}$ - L$_{12}$	-257.92	-122.38	-3.70			0.75	1.00	-2.77	-91.78	0.00	0.00	Vehicle	Vehicle	-----	-534.16	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.56	5.93
	U$_{13}$ - L$_{13}$	-243.80	-101.40	6.38			0.75	1.00	4.78	-76.05	0.00	0.00	Vehicle	Vehicle	-----	-481.72	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.52	5.87
	U$_{14}$ - L$_{14}$	-420.84	-81.90	-84.59			0.75	1.00	-61.43	-63.44	0.00	0.00	Vehicle	Vehicle	-----	-684.55	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	-----	-----	-----	5.97	9.95
	U$_{15}$ - L$_{15}$	-158.85	21.70	-89.92			0.75	1.00	16.28	-67.44	0.00	0.00	Vehicle	Vehicle	-----	-352.62	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.73	7.88
	U$_{16}$ - L$_{16}$	-174.03	13.00	-108.28			0.75	1.00	9.75	-81.21	0.00	0.00	Vehicle	Vehicle	-----	-402.19	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.64	6.06
	U$_{17}$ - L$_{17}$	-156.46	10.81	-108.05			0.75	1.00	8.11	-81.04	0.00	0.00	Vehicle	Vehicle	-----	-378.98	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.46	5.76
	U$_{18}$ - L$_{18}$	-142.20	2.92	-102.39			0.75	1.00	2.19	-76.79	0.00	0.00	Vehicle	Vehicle	-----	-351.25	0.00	27.98	27.9777	923.26	131.71	12.2526	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.40	5.66
	U$_{19}$ - L$_{19}$	-113.66	3.67	-59.35			0.75	1.00	2.75	-44.51	0.00	0.00	Vehicle	Vehicle	-----	-244.20	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	5.36	8.93
	U$_{20}$ - L$_{20}$	-76.52	-1.07	-52.46			0.75	1.00	-0.81	-39.34	0.00	0.00	Vehicle	Vehicle	-----	-184.72	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	4.55	7.59
	U$_{21}$ - L$_{21}$	-45.78	0.44	-44.93			0.75	1.00	0.33	-33.70	0.00	0.00	Vehicle	Vehicle	-----	-132.52	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.25	8.75
	U$_{22}$ - L$_{22}$	-17.71	-7.40	-9.59			0.75	1.00	-5.55	-7.19	0.00	0.00	Vehicle	Vehicle	-----	-38.61	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	27.03	45.05
	U$_{23}$ - L$_{23}$	-30.66	-43.91	1.74			0.75	1.00	1.31	-32.93	0.00	0.00	Vehicle	Vehicle	-----	-111.21	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.65	9.41
	U$_{24}$ - L$_{24}$	-62.03	-51.51	-0.17			0.75	1.00	-0.13	-38.63	0.00	0.00	Vehicle	Vehicle	-----	-164.33	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	4.86	8.11
	U$_{25}$ - L$_{25}$	-103.10	-67.56	3.10			0.75	1.00	2.33	-50.67	0.00	0.00	Vehicle	Vehicle	-----	-243.81	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	4.83	8.06
	U$_{26}$ - L$_{26}$	-134.31	-111.37	0.93			0.75	1.00	0.70	-83.53	0.00	0.00	Vehicle	Vehicle	-----	-355.58	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.18	5.30
	U$_{27}$ - L$_{27}$	-155.93	-107.73	5.70			0.75	1.00	4.27	-80.80	0.00	0.00	Vehicle	Vehicle	-----	-377.77	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.47	5.78
	U$_{28}$ - L$_{28}$	-179.28	-108.85	4.02			0.75	1.00	3.01	-81.63	0.00	0.00	Vehicle	Vehicle	-----	-409.94	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.58	5.96
	U$_{29}$ - L$_{29}$	-171.45	-100.31	8.28			0.75	1.00	6.21	-75.23	0.00	0.00	Vehicle	Vehicle	-----	-385.88	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.14	6.89
	U$_{30}$ - L$_{30}$	-392.76	-73.81	-99.57			0.75	1.00	-55.36	-74.68	0.00	0.00	Vehicle	Vehicle	-----	-672.39	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	-----	-----	-----	5.30	8.83
	U$_{31}$ - L$_{31}$	-203.21	14.71	-103.57			0.75	1.00	11.03	-77.68	0.00	0.00	Vehicle	Vehicle	-----	-432.48	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.76	6.27
	U$_{32}$ - L$_{32}$	-222.46	3.48	-123.77			0.75	1.00	2.61	-92.83	0.00	0.00	Vehicle	Vehicle	-----	-490.32	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Center Truss - Diagonals

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capicity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Structure 1	U_0 - L_1	53.25	-23.23	64.82			0.75	1.00	48.62	-17.42	0.00	0.00	Vehicle	Vehicle	174.56	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	**6.58**	**10.97**	-----	-----
	U_1 - L_2	10.78	-19.74	50.15			0.75	1.00	37.61	-14.81	0.00	0.00	Vehicle	Vehicle	95.50	-18.08	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**6.65**	**11.08**	**14.02**	**23.37**
	U_2 - L_3	-44.02	-19.51	40.99			0.75	1.00	30.74	-14.63	0.00	0.00	Vehicle	Vehicle	9.39	-88.92	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**9.21**	**15.34**	**11.90**	**19.83**
	U_3 - L_4	-76.72	-22.31	16.91			0.75	1.00	12.68	-16.73	0.00	0.00	Vehicle	Vehicle	-----	-135.99	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**9.31**	**15.52**
	U_4 - L_4	118.39	15.35	78.42			0.75	1.00	58.81	11.51	0.00	0.00	Vehicle	Vehicle	281.33	-----	0.00	20.66	20.6644	681.93	131.71	11.6953	2.0011	52.60	30.37	-533.41	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**4.14**	**6.91**	-----	-----
	U_5 - L_5	137.53	15.24	60.67			0.75	1.00	45.51	11.43	0.00	0.00	Vehicle	Vehicle	277.38	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**6.77**	**11.28**	-----	-----
	U_6 - L_6	157.34	0.00	106.26			0.75	1.00	79.69	0.00	0.00	0.00	Vehicle	Vehicle	377.20	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.71**	**6.19**	-----	-----
	U_7 - L_7	149.30	9.54	89.22			0.75	1.00	66.91	7.15	0.00	0.00	Vehicle	Vehicle	339.06	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.50**	**7.49**	-----	-----
	U_8 - L_9	249.09	8.54	92.84			0.75	1.00	69.63	6.40	0.00	0.00	Vehicle	Vehicle	474.68	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**6.15**	**10.24**	-----	-----
	U_9 - L_{10}	260.26	2.56	93.89			0.75	1.00	70.42	1.92	0.00	0.00	Vehicle	Vehicle	490.90	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.98**	**9.97**	-----	-----
	U_{10} - L_{11}	236.30	9.25	83.05			0.75	1.00	62.28	6.93	0.00	0.00	Vehicle	Vehicle	442.14	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**6.50**	**10.83**	-----	-----
	U_{11} - L_{12}	211.92	9.83	80.49			0.75	1.00	60.37	7.37	0.00	0.00	Vehicle	Vehicle	406.29	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.62**	**9.37**	-----	-----
	U_{12} - L_{13}	151.66	0.00	91.95			0.75	1.00	68.96	0.00	0.00	0.00	Vehicle	Vehicle	346.57	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**4.17**	**6.95**	-----	-----
	U_{13} - L_{14}	108.60	0.00	68.28			0.75	1.00	51.21	0.00	0.00	0.00	Vehicle	Vehicle	252.14	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**3.74**	**6.23**	-----	-----
	U_{14} - L_{14}	-24.45	-11.96	33.29			0.75	1.00	24.97	-8.97	0.00	0.00	Vehicle	Vehicle	22.32	-51.21	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**10.87**	**18.11**	**20.33**	**33.89**
	U_{15} - L_{15}	23.99	-10.04	54.56			0.75	1.00	40.92	-7.53	0.00	0.00	Vehicle	Vehicle	119.85	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.92**	**9.87**	-----	-----
	U_{16} - L_{16}	120.03	-10.41	73.33			0.75	1.00	55.00	-7.81	0.00	0.00	Vehicle	Vehicle	275.20	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**4.41**	**7.36**	-----	-----
	U_{17} - L_{17}	144.79	-8.72	81.04			0.75	1.00	60.78	-6.54	0.00	0.00	Vehicle	Vehicle	319.92	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.99**	**8.32**	-----	-----
	U_{18} - L_{18}	193.05	-7.19	77.00			0.75	1.00	57.75	-5.39	0.00	0.00	Vehicle	Vehicle	376.08	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.37**	**8.96**	-----	-----
	U_{19} - L_{19}	193.51	-5.84	77.26			0.75	1.00	57.94	-4.38	0.00	0.00	Vehicle	Vehicle	377.11	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.35**	**8.92**	-----	-----
	U_0 - L_1	202.41	-21.40	91.55			0.75	1.00	68.66	-16.05	0.00	0.00	Vehicle	Vehicle	411.90	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.03**	**8.38**	-----	-----
	U_1 - L_2	190.86	-24.27	90.56			0.75	1.00	67.92	-18.20	0.00	0.00	Vehicle	Vehicle	395.28	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.18**	**8.64**	-----	-----
	U_2 - L_3	155.85	-23.88	75.09			0.75	1.00	56.32	-17.91	0.00	0.00	Vehicle	Vehicle	324.62	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.27**	**8.79**	-----	-----
	U_3 - L_4	134.05	-26.33	67.84			0.75	1.00	50.88	-19.75	0.00	0.00	Vehicle	Vehicle	284.51	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**5.22**	**8.71**	-----	-----
	U_4 - L_5	46.02	-20.60	50.07			0.75	1.00	37.55	-15.45	0.00	0.00	Vehicle	Vehicle	141.19	-----	0.00	16.85	16.8486	556.00	131.71	15.3958	1.9682	70.40	28.29	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**6.10**	**10.16**	-----	-----
	U_5 - L_6	3.45	-21.43	38.22			0.75	1.00	28.66	-16.08	0.00	0.00	Vehicle	Vehicle	66.58	-30.35	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**8.88**	**14.80**	**12.29**	**20.48**
	U_6 - L_7	-84.29	-19.26	18.60			0.75	1.00	13.95	-14.45	0.00	0.00	Vehicle	Vehicle	-----	-140.87	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	**11.42**	**19.03**
	U_0 - L_7	137.30	0.00	64.82			0.75	1.00	48.61	0.00	0.00	0.00	Vehicle	Vehicle	283.82	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**5.75**	**9.59**	-----	-----
	U_8 - L_8	210.89	8.29	77.89			0.75	1.00	58.42	6.21	0.00	0.00	Vehicle	Vehicle	400.73	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.13**	**8.55**	-----	-----
	U_{10} - L_9	236.36	7.99	97.69			0.75	1.00	73.27	6.00	0.00	0.00	Vehicle	Vehicle	466.02	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.43**	**7.39**	-----	-----
	U_{11} - L_{10}	274.62	2.13	98.38			0.75	1.00	73.78	1.59	0.00	0.00	Vehicle	Vehicle	516.87	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.63**	**7.72**	-----	-----
	U_{12} - L_{11}	281.06	3.13	130.61			0.75	1.00	97.96	2.35	0.00	0.00	Vehicle	Vehicle	577.62	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.45**	**5.75**	-----	-----
	U_{13} - L_{12}	278.12	-6.80	108.92			0.75	1.00	81.69	-5.10	0.00	0.00	Vehicle	Vehicle	538.55	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.67**	**6.11**	-----	-----
	U_{14} - L_{13}	235.45	-11.42	82.15			0.75	1.00	61.61	-8.56	0.00	0.00	Vehicle	Vehicle	439.58	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.28**	**8.80**	-----	-----
	U_{15} - L_{14}	143.03	-23.94	72.31			0.75	1.00	54.23	-17.95	0.00	0.00	Vehicle	Vehicle	303.44	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.62**	**9.36**	-----	-----
	U_{16} - L_{15}	171.91	-22.46	91.17			0.75	1.00	68.38	-16.84	0.00	0.00	Vehicle	Vehicle	371.63	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.20**	**7.00**	-----	-----
	U_{17} - L_{16}	181.04	-12.53	113.92			0.75	1.00	85.44	-9.40	0.00	0.00	Vehicle	Vehicle	420.48	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.72**	**6.19**	-----	-----
	U_{18} - L_{17}	171.16	-11.85	112.16			0.75	1.00	84.12	-8.89	0.00	0.00	Vehicle	Vehicle	404.77	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.42**	**5.70**	-----	-----
	U_{19} - L_{18}	150.64	-5.02	69.40			0.75	1.00	52.05	-3.76	0.00	0.00	Vehicle	Vehicle	308.61	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.76**	**9.61**	-----	-----
	U_{20} - L_{19}	125.86	-4.87	62.20			0.75	1.00	46.65	-3.65	0.00	0.00	Vehicle	Vehicle	264.70	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**6.14**	**10.23**	-----	-----
	U_{26} - L_{21}	76.05	-1.29	60.29			0.75	1.00	45.21	-0.97	0.00	0.00	Vehicle	Vehicle	196.83	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.67**	**7.78**	-----	-----
	U_{21} - L_{22}	38.34	-1.57	39.39			0.75	1.00	29.54	-1.18	0.00	0.00	Vehicle	Vehicle	113.85	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**7.91**	**13.18**	-----	-----
	U_{23} - L_{22}	18.02	-3.50	39.32			0.75	1.00	29.49	-2.63	0.00	0.00	Vehicle	Vehicle	87.32	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.34**	**13.89**	-----	-----
	U_{24} - L_{23}	58.54	-2.88	60.68			0.75	1.00	45.51	-2.16	0.00	0.00	Vehicle	Vehicle	174.71	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.87**	**8.11**	-----	-----
	U_{25} - L_{24}	114.92	-5.19	70.98			0.75	1.00	53.24	-3.89	0.00	0.00	Vehicle	Vehicle	264.75	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**5.50**	**9.17**	-----	-----
	U_{26} - L_{25}	142.93	-4.40	82.11			0.75	1.00	61.58	-3.30	0.00	0.00	Vehicle	Vehicle	319.24	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.95**	**8.24**	-----	-----
	U_{27} - L_{26}	173.71	-7.75	114.85			0.75	1.00	86.14	-5.82	0.00	0.00	Vehicle	Vehicle	412.46	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.32**	**5.54**	-----	-----
	U_{28} - L_{27}	186.49	-7.33	117.03			0.75	1.00	87.77	-5.50	0.00	0.00	Vehicle	Vehicle	432.61	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.58**	**5.97**	-----	-----
	U_{29} - L_{28}	190.57	-9.50	104.86			0.75	1.00	78.65	-7.12	0.00	0.00	Vehicle	Vehicle	418.14	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.51**	**5.85**	-----	-----
	U_{30} - L_{29}	161.74	-13.85	68.95			0.75	1.00	51.71	-10.39	0.00	0.00	Vehicle	Vehicle	322.30	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.67**	**9.45**	-----	-----
	U_{31} - L_{31}	191.49	-17.00	86.34			0.75	1.00	64.75	-12.75	0.00	0.00	Vehicle	Vehicle	389.23	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.43**	**9.05**	-----	-----
	U_{32} - L_{32}	226.17	-15.13	108.15			0.75	1.00	81.11	-11.35	0.00	0.00	Vehicle	Vehicle	469.77	-----	0.00	30.63	30.6305	1010.81	131.71	17.8750	2.8427	56.59	29.95	-779.87	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.08**	**6.80**	-----	-----
	U_{33} - L_{33}	243.26	-2.66	127.73			0.75	1.00	95.80	-2.00	0.00	0.00	Vehicle	Vehicle	523.80	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.77**	**6.28**	-----	-----
	U_{34} - L_{34}	238.98	-2.04	89.01			0.75	1.00	66.75	-1.53	0.00	0.00	Vehicle	Vehicle	455.31	-----	0.00	33.27	33.2657	1097.77	131.71	14.5729	2.8573	45.90	31.00	-876.43	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**5.44**	**9.07**	-----	-----
	U_{34} - L_{35}	222.10	8.67	73.16			0.75	1.00	54.87	6.50	0.00	0.00	Vehicle	Vehicle	407.61	-----	0.00	30.63	30.6305	1010.81	131.71	13.7604	2.8427	43.57	31.19	-812.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	Impact & Pedestrian Load MAX	Impact & Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capacity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating — Tension Member: Inventory RF	Tension Member: Operating RF	Comp. Member: Inventory RF	Comp. Member: Operating RF
South Truss - Upper Chord	Structure 1	U_0 - U_1	-66.77	-38.85	-8.82	-8.83	2.20	0.90	1.00	-7.94	-34.96	2.20	-8.83	Vehicle	Vehicle	-----	-162.55	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	8.56	14.26
		U_1 - U_2	-86.66	30.98	-71.48	6.00	-16.34	0.90	1.00	27.88	-64.33	6.00	-16.34	Vehicle	Vehicle	-----	-252.04	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	4.46	7.44
		U_2 - U_3	-48.28	45.79	-68.63	9.44	-19.05	0.90	1.00	41.21	-61.77	9.44	-19.05	Vehicle	Vehicle	26.53	-196.58	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	10.47	17.46	5.02	8.37
		U_3 - U_4	36.43	58.87	-55.48	12.72	-17.47	0.90	1.00	52.98	-49.93	12.72	-17.47	Vehicle	Pedestrian	162.15	-62.17	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	7.19	11.98	7.14	8.93
		U_4 - U_5	38.78	59.04	-54.96	12.78	-17.37	0.90	1.00	53.14	-49.46	12.78	-17.37	Vehicle	Pedestrian	165.54	-58.19	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	7.14	11.90	7.23	9.04
		U_5 - U_6	154.43	65.51	-30.79	15.13	-12.03	0.90	1.00	58.96	-27.71	15.13	-12.03	Vehicle	Pedestrian	328.50	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	5.26	8.76	-----	-----
		U_6 - U_7	288.19	70.38	-4.80	17.11	-4.31	0.90	1.00	63.35	-4.32	17.11	-4.31	Vehicle	Pedestrian	511.90	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	4.89	8.15	-----	-----
		U_7 - U_8	410.75	21.04	19.69	18.24	4.35	0.90	1.00	18.94	17.72	18.24	4.35	Pedestrian	Vehicle	594.39	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	15.05	18.81	-----	-----
		U_8 - U_9	311.35	67.88	9.68	19.05	0.00	0.90	1.00	61.09	8.71	19.05	0.00	Vehicle	Vehicle	537.11	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	6.16	10.27	-----	-----
		U_9 - U_{10}	78.25	17.59	0.00	5.45	0.00	0.90	1.00	15.83	0.00	5.45	0.00	Pedestrian	Vehicle	136.30	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	-----	-----	10.67	-----	-----	23.72	29.65	-----	-----
		U_{10} - U_{11}	-141.75	-32.15	-5.05	-7.34	0.00	0.90	1.00	-4.54	-28.93	0.00	-7.34	Vehicle	Vehicle	-----	-246.96	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	9.45	15.75	-----	-----
		U_{11} - U_{12}	-338.40	37.38	-116.05	9.77	-27.96	0.90	1.00	33.64	-104.44	9.77	-27.96	Vehicle	Vehicle	-----	-666.21	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	43.05	Pass	28.44	50.00	Pass	8.00	12.00	Pass	2.72	4.54	-----	-----
		U_{12} - U_{13}	-480.50	32.90	-130.78	8.23	-34.35	0.90	1.00	29.61	-117.70	8.23	-34.35	Vehicle	Vehicle	-----	-879.66	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	44.40	Pass	28.44	50.00	Pass	8.00	12.00	Pass	3.35	5.58	-----	-----
		U_{13} - U_{14}	-571.10	28.10	-136.30	6.68	-37.24	0.90	1.00	25.29	-122.67	6.68	-37.24	Vehicle	Vehicle	-----	-1008.21	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.77	Pass	25.60	50.00	Pass	6.40	12.00	Pass	3.70	6.17	-----	-----
		U_{14} - U_{15}	-571.52	27.97	-136.15	6.65	-37.25	0.90	1.00	25.17	-122.53	6.65	-37.25	Vehicle	Vehicle	-----	-1008.46	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.76	Pass	25.60	50.00	Pass	6.40	12.00	Pass	3.70	6.17	-----	-----
		U_{15} - U_{16}	-582.34	21.94	-125.15	4.98	-36.14	0.90	1.00	19.74	-112.63	4.98	-36.14	Vehicle	Vehicle	-----	-1001.07	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.93	Pass	25.60	50.00	Pass	6.40	12.00	Pass	3.97	6.62	-----	-----
		U_{16} - U_{17}	-539.92	9.49	-107.76	3.53	-31.87	0.90	1.00	8.54	-96.98	3.53	-31.87	Pedestrian	Vehicle	-----	-912.02	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	4.87	8.12	-----	-----
		U_{17} - U_{18}	-422.72	10.66	-79.09	2.26	-25.07	0.90	1.00	9.60	-71.18	2.26	-25.07	Vehicle	Pedestrian	-----	-705.94	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	45.00	Pass	32.00	50.00	Pass	8.00	12.00	Pass	4.56	5.69	-----	-----
		U_{18} - U_{19}	-286.53	6.02	-50.76	1.28	-16.97	0.90	1.00	5.42	-45.68	1.28	-16.97	Vehicle	Pedestrian	-----	-474.30	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	4.99	6.24	-----	-----
		U_{19} - U_{20}	-140.97	1.61	-22.88	0.55	-8.68	0.90	1.00	1.45	-20.60	0.55	-8.68	Pedestrian	Pedestrian	-----	-230.83	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	14.66	18.33	-----	-----
	Structure 2	U_0 - U_1	-147.48	-29.54	-18.34	-4.88	0.36	0.90	1.00	-16.50	-26.59	0.36	-4.88	Vehicle	Vehicle	-----	-249.33	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	11.28	18.80
		U_1 - U_2	-319.09	-23.62	-46.36	1.96	-13.36	0.90	1.00	-21.26	-41.72	1.96	-13.36	Vehicle	Vehicle	-----	-505.22	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	6.79	11.32
		U_2 - U_3	-460.93	9.56	-38.82	-20.95	3.77	0.90	1.00	8.60	-34.94	3.77	-20.95	Pedestrian	Pedestrian	-----	-690.01	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.69	4.00	0.69	16.00	95.35	272.00	30.22	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	8.83	11.03
		U_3 - U_4	-580.02	45.30	-147.95	5.92	-27.68	0.90	1.00	40.77	-133.15	5.92	-27.68	Vehicle	Vehicle	-----	-1042.53	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.17	Pass	23.27	50.00	Pass	5.82	12.00	Pass	3.43	5.72	-----	-----
		U_4 - U_5	-616.47	58.78	-169.35	7.86	-31.35	0.90	1.00	52.90	-152.41	7.86	-31.35	Vehicle	Vehicle	-----	-1131.64	15.14	69.44	54.2975	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.65	Pass	25.60	50.00	Pass	6.40	12.00	Pass	3.43	5.71	-----	-----
		U_5 - U_6	-604.69	72.35	-184.00	9.87	-32.88	0.90	1.00	65.12	-165.60	9.87	-32.88	Vehicle	Vehicle	-----	-1144.89	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.39	Pass	25.60	50.00	Pass	6.40	12.00	Pass	3.20	5.33	-----	-----
		U_6 - U_7	-514.75	82.51	-178.70	11.56	-31.23	0.90	1.00	74.26	-160.83	11.56	-31.23	Vehicle	Vehicle	-----	-1017.64	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.71	Pass	23.27	50.00	Pass	5.82	12.00	Pass	3.08	5.14	-----	-----
		U_7 - U_8	-512.80	82.58	-178.36	11.57	-31.18	0.90	1.00	74.32	-160.52	11.57	-31.18	Vehicle	Vehicle	-----	-1014.43	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.78	Pass	23.27	50.00	Pass	5.82	12.00	Pass	3.10	5.16	-----	-----
		U_8 - U_9	-373.48	91.47	-154.29	13.16	-27.41	0.90	1.00	82.33	-138.86	13.16	-27.41	Vehicle	Vehicle	-----	-786.39	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	3.25	5.42	-----	-----
		U_9 - U_{10}	-181.02	95.18	-115.68	14.25	-21.42	0.90	1.00	85.67	-104.11	14.25	-21.42	Vehicle	Vehicle	-----	-460.89	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	4.06	6.77
		U_{10} - U_{11}	26.21	97.83	-76.39	15.21	-14.40	0.90	1.00	88.05	-68.75	15.21	-14.40	Vehicle	Vehicle	224.85	-114.90	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	6.03	10.04	6.94	11.57
		U_{11} - U_{12}	237.41	94.64	-33.24	15.56	-6.85	0.90	1.00	85.17	-29.92	15.56	-6.85	Vehicle	Vehicle	493.17	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	4.74	7.90	-----	-----
		U_{12} - U_{13}	435.92	91.64	4.75	15.82	0.56	0.90	1.00	82.47	4.28	15.82	0.56	Vehicle	Vehicle	745.38	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	5.12	8.53	-----	-----
		U_{13} - U_{14}	595.85	21.49	35.65	15.74	6.92	0.90	1.00	32.08	19.34	15.74	6.92	Pedestrian	Pedestrian	852.32	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	16.20	20.25	-----	-----
		U_{14} - U_{15}	615.52	121.50	-5.47	24.37	0.00	0.90	1.00	109.35	-4.92	24.37	0.00	Vehicle	Vehicle	1037.11	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.21	8.68	-----	-----
		U_{15} - U_{16}	486.12	67.42	11.60	14.17	3.09	0.90	1.00	60.68	10.44	14.17	3.09	Vehicle	Vehicle	763.44	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	7.77	12.96	-----	-----
		U_{16} - U_{17}	339.23	43.41	-4.93	11.57	0.00	0.90	1.00	39.07	-4.44	11.57	0.00	Vehicle	Vehicle	525.65	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	10.82	18.04	-----	-----
		U_{17} - U_{18}	192.06	26.79	-5.46	4.46	0.00	0.90	1.00	24.11	-4.91	4.46	0.00	Vehicle	Vehicle	301.93	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	14.29	23.81	-----	-----
		U_{18} - U_{19}	53.73	85.45	-40.66	-2.79	-12.78	0.90	1.00	76.91	-36.59	-2.79	-12.78	Vehicle	Pedestrian	236.48	-10.39	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	5.56	9.27	11.36	14.20
		U_{19} - U_{20}	-59.08	88.03	-120.54	15.07	-15.68	0.90	1.00	79.23	-108.48	15.07	-15.68	Vehicle	Vehicle	94.85	-311.85	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.66	11.10	3.51	5.84
	Structure 3	U_0 - U_1	-125.50	87.96	-125.82	14.76	-16.53	0.90	1.00	79.16	-113.24	14.76	-16.53	Vehicle	Vehicle	8.38	-408.49	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.47	14.11	3.77	6.28
		U_1 - U_2	-146.93	87.10	-122.04	14.37	-22.74	0.90	1.00	78.39	-109.83	14.37	-22.74	Vehicle	Vehicle	-----	-428.98	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.77	6.28
		U_2 - U_3	-146.70	86.96	-121.74	14.36	-22.72	0.90	1.00	78.27	-109.57	14.36	-22.72	Vehicle	Vehicle	-----	-428.11	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.78	6.30
		U_3 - U_4	-112.76	83.44	-104.68	13.87	-21.04	0.90	1.00	75.10	-94.21	13.87	-21.04	Vehicle	Vehicle	16.11	-350.72	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.82	14.71	4.61	7.68
		U_4 - U_5	-36.27	79.51	-45.93	13.40	-15.02	0.90	1.00	71.56	-41.34	13.40	-15.02	Vehicle	Pedestrian	107.89	-138.73	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	7.18	11.97	9.32	11.65
		U_5 - U_6	80.70	73.08	-49.49	12.92	-12.15	0.90	1.00	65.77	-44.54	12.92	-12.15	Vehicle	Vehicle	247.41	-----	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	6.25	10.42	-----	-----
		U_6 - U_7	220.59	67.15	-16.19	12.57	-5.86	0.90	1.00	60.44	-14.57	12.57	-5.86	Vehicle	Pedestrian	417.72	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	5.42	9.03	-----	-----
		U_7 - U_8	363.31	59.79	16.96	12.37	0.18	0.90	1.00	53.81	15.26	12.37	0.18	Vehicle	Vehicle	588.89	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	7.59	12.65	-----	-----
		U_8 - U_9	503.82	4.42	10.53	12.23	3.11	0.90	1.00	9.48	3.98	12.23	3.11	Pedestrian	Pedestrian	690.25	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	28.32	35.40	-----	-----
		U_9 - U_{10}	616.57	-11.00	127.27	0.00	7.42	0.90	1.00	114.54	-9.90	7.42	0.00	Vehicle	Vehicle	1049.71	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.96	8.27	-----	-----
		U_{10} - U_{11}	559.74	117.44	-26.86	25.79	0.00	0.90	1.00	105.69	-24.17

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Lower Chord	Structure 1	L$_0$- L$_1$	-2.01	-5.29	0.68	-2.06	0.36	0.90	1.00	0.61	-4.76	0.36	-2.06	Pedestrian	Pedestrian	-----	-13.68	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	-----	-----	49.49	61.87
		L$_1$ - L$_2$	67.91	37.67	-18.02	0.00	5.87	0.90	1.00	33.91	-16.22	5.87	0.00	Vehicle	Vehicle	161.74	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	7.69	12.82	-----	-----
		L$_2$ - L$_3$	78.84	-38.84	76.12	-7.39	15.48	0.90	1.00	68.51	-34.96	15.48	-7.39	Vehicle	Vehicle	250.93	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	5.17	8.61	-----	-----
		L$_3$ - L$_4$	39.14	-53.61	72.67	-10.83	18.09	0.90	1.00	65.40	-48.25	18.09	-10.83	Vehicle	Vehicle	192.59	-53.65	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	5.77	9.62	7.49	12.48
		L$_4$ - L$_5$	-166.38	-76.15	40.21	-16.90	10.96	0.90	1.00	36.19	-68.53	10.96	-16.90	Vehicle	Vehicle	-----	-364.79	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	2.92	4.87
		L$_5$ - L$_6$	-301.23	-81.28	14.18	-18.93	3.23	0.90	1.00	12.76	-73.15	3.23	-18.93	Vehicle	Vehicle	-----	-550.09	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	42.72	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	2.94	4.90
		L$_6$ - L$_7$	-438.94	-86.40	-8.89	-21.52	-4.99	0.90	1.00	-8.00	-77.76	-4.99	-21.52	Pedestrian	Vehicle	-----	-739.10	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	44.12	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	3.90	6.51
		L$_7$ - L$_8$	-551.65	-8.25	-115.95	0.00	-35.55	0.90	1.00	-7.43	-104.36	0.00	-35.55	Vehicle	Pedestrian	-----	-944.49	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	44.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	3.70	4.63
		L$_8$ - L$_9$	-570.53	-126.06	4.28	-37.48	0.00	0.90	1.00	3.85	-113.45	0.00	-37.48	Vehicle	Vehicle	-----	-987.49	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	43.04	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	3.33	5.54
		L$_9$ - L$_{10}$	-355.48	-48.19	-33.75	-13.03	-11.67	0.90	1.00	-30.37	-43.37	-11.67	-13.03	Pedestrian	Vehicle	-----	-556.10	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	8.16	13.60
		L$_{10}$ - L$_{11}$	-118.48	-26.29	21.02	-12.43	0.00	0.90	1.00	18.91	-23.66	0.00	-12.43	Vehicle	Pedestrian	-----	-212.66	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	8.47	10.58
		L$_{11}$ - L$_{12}$	103.45	23.96	0.00	0.49	0.00	0.90	1.00	21.57	0.00	0.49	0.00	Vehicle	Vehicle	181.21	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	13.65	22.75	-----	-----
		L$_{12}$ - L$_{13}$	300.60	-30.92	106.90	-8.14	17.83	0.90	1.00	96.21	-27.83	17.83	-8.14	Vehicle	Vehicle	599.24	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	4.20	7.01	-----	-----
		L$_{13}$ - L$_{14}$	441.19	-26.48	121.28	-6.61	24.15	0.90	1.00	109.15	-23.83	24.15	-6.61	Vehicle	Vehicle	810.04	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	4.76	7.94	-----	-----
		L$_{14}$ - L$_{15}$	547.00	-16.92	120.35	-3.49	24.57	0.90	1.00	108.32	-15.23	24.57	-3.49	Vehicle	Vehicle	945.79	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	5.69	9.49	-----	-----
		L$_{15}$ - L$_{16}$	506.09	-11.44	103.14	-2.03	20.32	0.90	1.00	92.82	-10.29	20.32	-2.03	Vehicle	Vehicle	859.03	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	6.91	11.51	-----	-----
		L$_{16}$ - L$_{17}$	398.75	-14.95	78.06	-0.83	12.72	0.90	1.00	70.25	-13.45	12.72	-0.83	Vehicle	Vehicle	670.60	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	6.98	11.64	-----	-----
		L$_{17}$ - L$_{18}$	263.81	-2.27	49.89	0.15	4.66	0.90	1.00	44.90	-2.04	4.66	0.15	Vehicle	Vehicle	440.24	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	8.28	13.80	-----	-----
		L$_{18}$ - L$_{19}$	118.75	-9.77	25.77	0.71	-3.38	0.90	1.00	23.19	-8.80	0.71	-3.38	Vehicle	Pedestrian	204.63	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	9.93	16.55	-----	-----
		L$_{19}$ - L$_{20}$	-23.36	3.11	2.10	1.28	-12.08	0.90	1.00	2.80	1.89	1.28	-12.08	Pedestrian	Pedestrian	-----	-46.93	1.95	19.80	17.8500	653.40	131.71	10.8073	5.6265	17.41	32.71	-550.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	-----	-----	-----	-----
		L$_0$- L$_1$	-36.12	-16.52	5.10	-5.14	1.19	0.90	1.00	4.59	-14.86	1.19	-5.14	Vehicle	Pedestrian	-----	-79.47	1.88	24.95	23.0700	823.35	131.71	10.8828	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	45.00	Pass	6.32	12.00	Pass	6.32	12.00	Pass	-----	-----	19.95	24.93
		L$_1$ - L$_2$	132.64	21.03	-4.25	2.93	-0.06	0.90	1.00	18.92	-3.82	2.93	-0.06	Vehicle	Vehicle	213.44	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	15.88	26.46	-----	-----
		L$_2$ - L$_3$	303.94	68.95	20.23	10.52	-1.79	0.90	1.00	62.06	18.20	10.52	-1.79	Vehicle	Vehicle	529.58	-----	6.20	38.45	32.2500	1268.85	131.71	10.7370	6.1675	15.67	32.77	-1070.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	6.50	10.83	-----	-----
		L$_3$ - L$_4$	445.73	44.91	59.43	0.00	13.17	0.90	1.00	53.48	40.41	13.17	0.00	Vehicle	Vehicle	695.33	-----	9.45	51.58	42.1250	1701.98	131.71	10.7370	5.7558	16.79	32.73	-1434.93	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	9.69	16.14	-----	-----
		L$_4$ - L$_5$	567.64	-50.18	151.77	-6.10	24.81	0.90	1.00	136.59	-45.16	24.81	-6.10	Vehicle	Vehicle	1033.88	-----	11.00	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.90	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	4.75	7.92	-----	-----
		L$_5$ - L$_6$	603.43	-63.74	173.07	-8.06	28.47	0.90	1.00	155.77	-57.37	28.47	-8.06	Vehicle	Vehicle	1121.96	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	4.58	7.64	-----	-----
		L$_6$ - L$_7$	599.28	-80.60	194.18	-10.41	30.25	0.90	1.00	174.76	-72.54	30.25	-10.41	Vehicle	Vehicle	1157.71	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	4.18	6.97	-----	-----
		L$_7$ - L$_8$	373.73	-99.57	165.37	-13.66	24.92	0.90	1.00	148.84	-89.62	24.92	-13.66	Vehicle	Vehicle	808.32	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	3.90	6.50	-----	-----
		L$_8$ - L$_9$	195.51	-106.81	133.76	-15.12	19.51	0.90	1.00	120.38	-96.13	19.51	-15.12	Vehicle	Vehicle	514.99	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	4.51	7.51	-----	-----
		L$_9$ - L$_{10}$	-13.41	-109.67	94.31	-16.11	12.45	0.90	1.00	84.88	-98.70	12.45	-16.11	Vehicle	Vehicle	166.47	-231.30	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	6.19	10.31	4.34	7.24
		L$_{10}$ - L$_{11}$	-217.51	-110.51	56.27	-17.02	5.50	0.90	1.00	50.64	-99.46	5.50	-17.02	Vehicle	Vehicle	-----	-498.25	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.78	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	44.49	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	2.61	4.35
		L$_{11}$ - L$_{12}$	-420.12	-107.75	17.70	-17.31	-2.05	0.90	1.00	15.93	-96.97	-2.05	-17.31	Vehicle	Vehicle	-----	-756.26	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	43.22	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	3.16	5.27
		L$_{12}$ - L$_{13}$	-591.61	-108.86	-9.59	-18.75	-7.10	0.90	1.00	-8.63	-97.97	-7.10	-18.75	Pedestrian	Vehicle	-----	-981.36	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	44.42	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	4.19	6.98
		L$_{13}$ - L$_{14}$	-724.42	-9.66	-152.32	0.00	-35.12	0.90	1.00	-8.70	-137.09	0.00	-35.12	Vehicle	Vehicle	-----	-1238.77	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.11	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	3.46	5.77
		L$_{14}$ - L$_{15}$	-747.19	-163.74	10.74	-36.29	0.00	0.90	1.00	9.67	-147.36	0.00	-36.29	Vehicle	Vehicle	-----	-1290.63	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	42.23	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	3.13	5.21
		L$_{15}$ - L$_{16}$	-632.29	11.56	-36.58	0.00	-31.22	0.90	1.00	10.40	-32.92	0.00	-31.22	Vehicle	Pedestrian	-----	-926.20	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	8.02	10.03
		L$_{16}$ - L$_{17}$	-488.73	-95.37	20.01	-25.40	0.00	0.90	1.00	18.01	-85.83	0.00	-25.40	Vehicle	Vehicle	-----	-821.30	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	44.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	3.91	6.51
		L$_{17}$ - L$_{18}$	-337.06	-12.96	-21.75	-18.13	0.00	0.90	1.00	-11.67	-19.57	0.00	-18.13	Vehicle	Pedestrian	-----	-499.44	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	8.28	10.36
		L$_{18}$ - L$_{19}$	-183.64	-58.10	28.61	-11.34	4.48	0.90	1.00	25.75	-52.29	4.48	-11.34	Vehicle	Vehicle	-----	-352.03	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	4.47	7.46
		L$_{19}$ - L$_{20}$	-45.76	-60.91	48.40	-9.58	8.92	0.90	1.00	43.56	-54.82	8.92	-9.58	Vehicle	Vehicle	34.90	-178.25	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	9.98	16.64	5.78	9.63
	Structure 2	L$_{20}$ - L$_{21}$	68.06	-65.92	107.67	-9.12	11.57	0.90	1.00	96.90	-59.33	11.57	-9.12	Vehicle	Vehicle	298.43	-40.06	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	5.55	9.25	8.92	14.87
		L$_{21}$ - L$_{22}$	134.01	-65.90	112.76	-8.81	13.61	0.90	1.00	101.49	-59.31	13.61	-8.81	Vehicle	Vehicle	394.10	-----	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	4.91	8.18	-----	-----
		L$_{22}$ - L$_{23}$	122.68	-64.64	97.63	-7.57	11.79	0.90	1.00	87.86	-58.17	11.79	-7.57	Vehicle	Vehicle	349.86	-----	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	5.75	9.58	-----	-----
		L$_{23}$ - L$_{24}$	46.89	-60.80	74.74	-7.09	8.09	0.90	1.00	67.27	-54.72	8.09	-7.09	Vehicle	Vehicle	206.71	-57.61	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	8.19	13.64	9.44	15.74
		L$_{24}$ - L$_{25}$	-66.54	-57.59	7.90	-6.23	2.64	0.90	1.00	7.11	-51.83	2.64	-6.23	Pedestrian	Vehicle	-----	-198.80	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	5.87	9.78
		L$_{25}$ - L$_{26}$	-205.63	-51.83	14.67	-5.87	-3.61	0.90	1.00	13.21	-46.65	-3.61	-5.87	Vehicle	Vehicle	-----	-368.38	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	4.73	7.89
		L$_{26}$ - L$_{27}$	-350.43	-62.28	-14.21	-5.25	-6.72	0.90	1.00	-12.79	-56.06	-5.25	-6.72	Pedestrian	Vehicle	-----	-577.01	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	43.72	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	4.04	6.73
		L$_{27}$ - L$_{28}$	-494.65	-52.95	-44.67	-5.10	-12.12	0.90	1.00	-40.21	-47.65	-5.10	-12.12	Vehicle	Vehicle	-----	-746.29	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	6.96	11.60
		L$_{28}$ - L$_{29}$	-620.83	-45.05	44.11	-31.78	-17.19	0.90	1.00	39.70	-40.54	-17.19	-31.78	Vehicle	Pedestrian	-----	-924.60	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	7.24	9.05
		L$_{29}$ - L$_{30}$	-716.91	-33.02	-140.76	0.00	-36.29	0.90	1.00	-29.72	-126.69	0.00	-36.29	Vehicle	Vehicle	-----	-1206.47	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.68	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	3.78	6.30

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17

Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capicity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Verticals	Structure 1	U$_0$ - L$_0$	-93.72	5.93	-59.06	3.44	-12.32	0.90	1.00	5.33	-53.16	3.44	-12.32	Pedestrian	Vehicle	-----	-237.01	1.63	16.85	15.2186	556.00	131.71	9.3438	1.9682	42.73	31.26	-447.73	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	2.83	4.72
		U$_1$ - L$_1$	-46.53	16.44	-39.66	2.93	-9.05	0.90	1.00	14.80	-35.69	2.93	-9.05	Vehicle	Vehicle	-----	-137.83	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.14	8.56
		U$_2$ - L$_2$	-0.10	14.71	-28.59	2.84	-5.68	0.90	1.00	13.24	-25.73	2.84	-5.68	Vehicle	Vehicle	28.56	-55.87	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	19.39	32.31	8.21	13.68
		U$_3$ - L$_3$	39.60	18.50	-3.84	2.69	-2.12	0.90	1.00	16.65	-3.46	2.69	-2.12	Vehicle	Pedestrian	87.54	-----	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	13.99	23.31	-----	-----
		U$_4$ - L$_4$	-30.20	-7.51	0.00	-3.46	0.00	0.90	1.00	0.00	-6.76	0.00	-3.46	Vehicle	Pedestrian	-----	-55.88	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	25.01	31.26
		U$_5$ - L$_5$	-130.49	-37.02	1.39	-10.23	0.00	0.90	1.00	1.25	-33.31	0.00	-10.23	Vehicle	Vehicle	-----	-241.81	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	5.31	8.85
		U$_6$ - L$_6$	-158.18	-39.12	6.05	-13.06	0.00	0.90	1.00	5.45	-35.21	0.00	-13.06	Vehicle	Pedestrian	-----	-284.07	3.13	24.86	21.7294	820.36	131.71	9.9479	2.0895	42.85	31.25	-660.40	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	45.00	Pass	8.89	12.00	Pass	-----	-----	5.80	7.25
		U$_7$ - L$_7$	-152.32	-41.93	10.75	-13.24	0.00	0.90	1.00	9.67	-37.74	0.00	-13.24	Vehicle	Pedestrian	-----	-280.86	2.88	23.11	20.2294	762.61	131.71	11.7292	2.0414	51.71	30.46	-598.26	16.25	0.44	10.00	0.50	-----	-----	16.25	-----	-----	37.14	45.00	Pass	10.00	12.00	Pass	-----	-----	4.83	6.04
		U$_8$ - L$_8$	-455.55	-24.18	-75.62	-12.74	-18.97	0.90	1.00	-21.76	-68.06	-12.74	-18.97	Pedestrian	Vehicle	-----	-739.67	3.28	51.42	48.1423	1696.94	131.71	16.6563	4.0363	37.14	31.69	-1385.05	15.25	0.82	15.64	1.31	-----	-----	15.25	-----	-----	18.60	45.00	Pass	5.96	12.00	Pass	-----	-----	5.38	8.96
		U$_9$ - L$_9$	-287.55	3.30	-71.12	0.00	-18.20	0.90	1.00	2.97	-64.00	0.00	-18.20	Vehicle	Vehicle	-----	-512.49	3.50	31.56	28.0625	1041.56	131.71	12.1563	2.5582	42.77	31.26	-838.65	16.25	0.50	12.00	0.63	-----	-----	16.25	-----	-----	32.50	44.73	Pass	9.60	12.00	Pass	-----	-----	3.35	5.59
		U$_{10}$ - L$_{10}$	-276.32	1.76	-71.34	0.00	-17.54	0.90	1.00	1.58	-64.20	0.00	-17.54	Vehicle	Vehicle	-----	-498.32	2.76	36.13	33.3715	1192.34	131.71	10.7083	2.3777	40.53	31.44	-965.49	16.16	0.83	11.50	0.80	-----	-----	16.16	-----	-----	19.50	45.00	Pass	7.23	12.00	Pass	-----	-----	4.36	7.26
		U$_{11}$ - L$_{11}$	-232.59	0.00	-63.42	0.00	-14.41	0.90	1.00	0.00	-57.08	0.00	-14.41	Vehicle	Vehicle	-----	-426.04	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	4.30	7.16
		U$_{12}$ - L$_{12}$	-178.43	1.19	-53.57	0.00	-11.20	0.90	1.00	1.07	-48.21	0.00	-11.20	Vehicle	Vehicle	-----	-336.41	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	-----	-----	16.25	-----	-----	32.50	45.00	Pass	8.89	12.00	Pass	-----	-----	4.41	7.34
		U$_{13}$ - L$_{13}$	-127.74	1.07	-22.75	0.00	-7.88	0.90	1.00	0.96	-20.47	0.00	-7.88	Vehicle	Pedestrian	-----	-212.13	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	7.13	8.91
		U$_{14}$ - L$_{14}$	-30.39	-8.16	-7.66	0.00	-3.03	0.90	1.00	-6.90	-7.35	0.00	-3.03	Vehicle	Pedestrian	-----	-56.38	0.00	16.85	16.8486	556.00	131.71	9.2605	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	24.22	30.28
		U$_{15}$ - L$_{15}$	-28.94	-20.81	6.52	-4.54	1.55	0.90	1.00	5.87	-18.73	1.55	-4.54	Vehicle	Vehicle	-----	-78.19	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	10.07	16.78
		U$_{16}$ - L$_{16}$	-76.03	-26.54	6.38	-7.08	1.39	0.90	1.00	5.74	-23.89	1.39	-7.08	Vehicle	Vehicle	-----	-150.60	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	6.66	11.11
		U$_{17}$ - L$_{17}$	-161.89	-40.01	6.95	-10.66	1.30	0.90	1.00	6.25	-36.01	1.30	-10.66	Vehicle	Vehicle	-----	-288.47	0.00	20.66	20.6644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	4.16	6.93
		U$_{18}$ - L$_{18}$	-190.28	-41.77	5.97	-12.71	1.12	0.90	1.00	5.37	-37.59	1.12	-12.71	Vehicle	Pedestrian	-----	-329.10	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	45.00	Pass	7.23	12.00	Pass	-----	-----	5.33	6.66
		U$_{19}$ - L$_{19}$	-228.17	-43.28	5.11	-14.98	0.97	0.90	1.00	4.60	-38.95	0.97	-14.98	Vehicle	Pedestrian	-----	-384.26	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	5.76	7.20
		U$_{20}$ - L$_{20}$	-242.83	-42.30	-6.02	-15.63	0.95	0.90	1.00	-5.42	-38.07	0.95	-15.63	Vehicle	Pedestrian	-----	-402.94	0.00	30.63	30.6305	1010.81	131.71	20.3229	2.8427	64.34	29.06	-756.66	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	5.05	6.32
		U$_0$ - L$_0$	-303.03	4.44	-78.50	2.22	-15.08	0.90	1.00	4.00	-70.65	2.22	-15.08	Pedestrian	Vehicle	-----	-547.02	0.00	33.27	33.2657	1097.77	131.71	19.1510	2.8573	60.32	29.54	-835.23	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	44.45	Pass	5.62	12.00	Pass	-----	-----	2.88	4.80
		U$_1$ - L$_1$	-268.78	17.28	-68.22	2.12	-13.67	0.90	1.00	15.55	-61.39	2.12	-13.67	Vehicle	Vehicle	-----	-482.43	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	3.95	6.58
		U$_2$ - L$_2$	-220.87	18.55	-63.77	2.34	-12.32	0.90	1.00	16.70	-57.39	2.34	-12.32	Vehicle	Vehicle	-----	-411.48	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	3.70	6.16
		U$_3$ - L$_3$	-175.23	19.88	-57.11	2.49	-10.35	0.90	1.00	17.89	-51.40	2.49	-10.35	Vehicle	Vehicle	-----	-339.16	0.00	22.73	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	45.00	Pass	4.91	12.00	Pass	-----	-----	3.23	5.38
		U$_4$ - L$_4$	-82.08	17.07	-38.79	2.21	-6.62	0.90	1.00	15.36	-34.91	2.21	-6.62	Vehicle	Vehicle	-----	-182.33	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	4.42	7.36
		U$_5$ - L$_5$	-19.89	16.84	-27.36	2.23	-4.16	0.90	1.00	15.16	-24.63	2.23	-4.16	Vehicle	Vehicle	6.98	-79.22	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	17.72	29.53	7.81	13.02
		U$_6$ - L$_6$	60.32	12.21	-7.57	1.75	-0.47	0.90	1.00	10.98	-6.81	1.75	-0.47	Vehicle	Vehicle	102.22	-----	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	20.07	33.44	-----	-----
		U$_7$ - L$_7$	-41.77	-6.63	-0.92	-2.49	0.00	0.90	1.00	-0.82	-5.97	0.00	-2.49	Vehicle	Pedestrian	-----	-68.05	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	28.27	35.33
		U$_8$ - L$_8$	-189.01	-40.86	0.13	-8.38	0.00	0.90	1.00	0.11	-36.77	0.00	-8.38	Vehicle	Vehicle	-----	-325.39	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	-----	-----	15.75	-----	-----	36.00	45.00	Pass	8.89	12.00	Pass	-----	-----	5.57	9.29
		U$_9$ - L$_9$	-253.99	-56.93	1.59	-10.55	0.00	0.90	1.00	1.43	-51.24	0.00	-10.55	Vehicle	Vehicle	-----	-441.21	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	5.12	8.53
		U$_{10}$ - L$_{10}$	-290.02	-67.03	3.58	-12.18	0.00	0.90	1.00	3.22	-60.32	0.00	-12.18	Vehicle	Vehicle	-----	-507.73	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	4.86	8.10
		U$_{11}$ - L$_{11}$	-312.18	-65.27	10.32	-12.59	0.00	0.90	1.00	9.28	-58.74	0.00	-12.59	Vehicle	Vehicle	-----	-533.10	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	4.62	7.71
		U$_{12}$ - L$_{12}$	-327.28	-64.90	15.51	-13.01	-0.93	0.90	1.00	13.96	-58.41	-0.93	-13.01	Vehicle	Vehicle	-----	-552.00	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	4.87	8.12
		U$_{13}$ - L$_{13}$	-277.21	-51.80	21.22	-11.39	0.00	0.90	1.00	19.10	-46.62	0.00	-11.39	Vehicle	Vehicle	-----	-461.38	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	5.31	8.86
		U$_{14}$ - L$_{14}$	-505.44	-34.34	-53.48	-9.95	-11.34	0.90	1.00	-30.90	-48.13	-9.95	-11.34	Vehicle	Vehicle	-----	-761.35	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	6.81	11.35
		U$_{15}$ - L$_{15}$	-232.94	13.44	-65.77	1.67	-11.17	0.90	1.00	12.09	-59.19	1.67	-11.17	Vehicle	Vehicle	-----	-431.07	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	4.63	7.72
		U$_{16}$ - L$_{16}$	-260.12	9.59	-70.48	0.83	-12.63	0.90	1.00	8.63	-63.43	0.83	-12.63	Vehicle	Vehicle	-----	-475.58	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	3.84	6.40
		U$_{17}$ - L$_{17}$	-228.24	8.81	-66.29	0.66	-11.76	0.90	1.00	7.93	-59.66	0.66	-11.76	Vehicle	Vehicle	-----	-425.98	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	3.97	6.62
		U$_{18}$ - L$_{18}$	-209.27	4.10	-60.53	-0.03	-11.28	0.90	1.00	3.69	-54.47	-0.03	-11.28	Vehicle	Vehicle	-----	-390.08	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	4.05	6.75
		U$_{19}$ - L$_{19}$	-166.55	5.25	-52.28	-0.07	-9.53	0.90	1.00	4.73	-47.05	-0.07	-9.53	Vehicle	Vehicle	-----	-318.46	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	4.40	7.33
	Structure 2	U$_{20}$ - L$_{20}$	-113.95	5.11	-30.88	-0.43	-7.50	0.90	1.00	4.59	-27.79	-0.43	-7.50	Vehicle	Vehicle	-----	-208.34	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	5.64	9.40
		U$_{21}$ - L$_{21}$	-62.76	5.07	-21.10	0.00	-5.22	0.90	1.00	4.56	-18.99	0.00	-5.22	Vehicle	Vehicle	-----	-122.74	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	8.78	14.63
		U$_{22}$ - L$_{22}$	-38.94	-8.54	-8.44	-2.04	-2.15	0.90	1.00	-7.60	-7.68	-2.04	-2.15	Vehicle	Vehicle	-----	-67.27	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	23.65	39.42
		U$_{23}$ - L$_{23}$	-74.43	-29.27	3.33	-6.10	0.48	0.90	1.00	3.00	-26.34	0.48	-6.10	Vehicle	Vehicle	-----	-153.83	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	6.06	10.10
		U$_{24}$ - L$_{24}$	-121.36	-51.91	4.77	-8.17	0.37	0.90	1.00	4.29	-46.72	0.37	-8.17	Vehicle	Vehicle	-----	-259.00	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	3.26	5.43
		U$_{25}$ - L$_{25}$	-169.12	-59.64	7.85	-9.94	0.43	0.90	1.00	7.06	-53.68	0.43	-9.94	Vehicle	Vehicle	-----	-336.16	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	3.82	6.37
		U$_{26}$ - L$_{26}$	-207.97	-62.38	7.14	-11.42	0.14	0.90	1.00	6.42	-56.14	0.14	-11.42	Vehicle	Vehicle	-----	-392.01	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	3.95	6.58
		U$_{27}$ - L$_{27}$	-219.96	-59.84	12.70	-11.49	0.16	0.90	1.00	11.43	-53.85	0.16	-11.49	Vehicle	Vehicle	-----	-402.63	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	4.49	7.49
		U$_{28}$ - L$_{28}$	-240.91	-56.76	20.31	-12.60	-0.25	0.90	1.00	18.28	-51.08	-0.25	-12.60	Vehicle	Vehicle	-----	-423.86	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	4.99	8.32
		U$_{29}$ - L$_{29}$	-202.73	-49.77	28.13	-10.35	0.00	0.90	1.00	25.32	-44.79	0.00	-10.35	Vehicle	Vehicle	-----	-360.59	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	6.53	10.88
		U$_{30}$ - L$_{30}$	-518.05	-21.87	-59.02	-8.23	-13.79	0.90	1.00	-19.68	-53.12	-8.23	-13.79	Pedestrian	Vehicle	-----	-788.55	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	6.03	10.05
		U$_{31}$ - L$_{31}$	-318.43	11.06	-67.78	0.00	-12.95	0.90	1.00	9.95	-61.00	0.00	-12.95	Vehicle	Vehicle	-----	-546.13	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	3.66	6.09
		U$_{32}$ - L$_{32}$	-358.67	4.33	-73.93	-0.26	-14.65	0.90	1.00	3.90	-66.53	-0.26	-14.65	Vehicle	Vehicle	-----	-610.43	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	4.00	6.66
		U$_{33}

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	Impact & Pedestrian Load MAX	Impact & Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capicity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Diagonals	Structure 1	U_0 - L_1	87.66	-11.46	5.43	14.00	-4.60	0.90	1.00	4.89	-10.32	14.00	-4.60	Pedestrian	Pedestrian	144.65	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	21.13	26.41	-----	-----
		U_1 - L_2	23.90	-25.31	48.22	-4.71	9.20	0.90	1.00	43.40	-22.78	9.20	-4.71	Vehicle	Vehicle	125.10	-18.28	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	5.58	9.30	9.46	15.77
		U_2 - L_3	-49.02	-20.79	-8.16	-4.32	3.33	0.90	1.00	-7.34	-18.71	3.33	-4.32	Vehicle	Vehicle	-----	-104.26	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	9.15	15.24
		U_3 - L_4	-108.88	-18.81	-1.98	-4.20	-2.10	0.90	1.00	-1.79	-16.93	-2.10	-4.20	Pedestrian	Vehicle	-----	-178.22	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	8.06	13.44
		U_4 - L_4	153.12	9.75	37.24	3.11	7.00	0.90	1.00	33.52	8.78	7.00	3.11	Vehicle	Pedestrian	271.67	-----	0.00	20.66	20.6644	681.93	131.71	11.6953	2.0011	52.60	30.37	-533.41	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	6.65	11.08	-----	-----
		U_5 - L_5	186.35	7.92	40.64	2.78	10.66	0.90	1.00	36.58	7.13	10.66	2.78	Vehicle	Pedestrian	321.51	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	7.62	12.69	-----	-----
		U_6 - L_6	177.52	-12.41	51.51	1.59	12.54	0.90	1.00	46.36	-11.17	12.54	1.59	Vehicle	Vehicle	331.23	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	6.12	10.21	-----	-----
		U_7 - L_7	173.18	-0.88	35.01	0.41	13.46	0.90	1.00	31.51	-0.80	13.46	0.41	Pedestrian	Vehicle	298.21	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	8.49	10.62	-----	-----
		U_8 - L_8	328.11	-3.65	78.03	-0.13	19.45	0.90	1.00	70.23	-3.28	19.45	-0.13	Vehicle	Vehicle	578.70	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	5.42	9.03	-----	-----
		U_9 - L_{10}	339.70	-1.22	83.49	0.85	18.90	0.90	1.00	75.14	-1.10	18.90	0.85	Vehicle	Vehicle	604.41	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	4.97	8.29	-----	-----
		U_{10} - L_{11}	313.22	3.55	77.09	1.69	16.46	0.90	1.00	69.38	3.19	16.46	1.69	Vehicle	Pedestrian	557.50	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	5.17	8.61	-----	-----
		U_{11} - L_{12}	270.68	4.40	69.51	1.81	13.03	0.90	1.00	62.56	3.96	13.03	1.81	Vehicle	Pedestrian	487.43	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	4.86	8.10	-----	-----
		U_{12} - L_{13}	194.17	-1.44	25.21	0.00	10.79	0.90	1.00	22.69	-1.29	10.79	0.00	Pedestrian	Vehicle	306.81	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	10.44	13.05	-----	-----
		U_{13} - L_{14}	123.57	-1.23	23.58	0.00	5.96	0.90	1.00	21.22	-1.10	5.96	0.00	Vehicle	Vehicle	206.61	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	8.60	14.33	-----	-----
		U_{15} - L_{14}	-16.32	-9.52	18.93	-2.35	1.48	0.90	1.00	17.04	-8.57	1.48	-2.35	Vehicle	Vehicle	15.69	-39.79	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	15.64	26.06	21.84	36.41
		U_{16} - L_{15}	59.12	-8.87	28.34	-2.09	6.08	0.90	1.00	25.51	-7.99	6.08	-2.09	Vehicle	Vehicle	132.12	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	8.67	14.45	-----	-----
		U_{17} - L_{16}	172.14	-9.67	46.33	-1.86	9.93	0.90	1.00	41.70	-8.70	9.93	-1.86	Vehicle	Vehicle	314.13	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	5.07	8.45	-----	-----
		U_{18} - L_{17}	210.78	-8.22	47.59	-1.53	12.51	0.90	1.00	42.83	-7.40	12.51	-1.53	Vehicle	Vehicle	366.81	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	6.16	10.27	-----	-----
		U_{19} - L_{18}	242.64	-6.57	50.08	-1.21	13.73	0.90	1.00	45.07	-5.91	13.73	-1.21	Vehicle	Vehicle	413.07	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	6.22	10.37	-----	-----
		U_{20} - L_{19}	257.76	-5.39	45.59	-1.03	15.70	0.90	1.00	41.03	-4.85	15.70	-1.03	Pedestrian	Vehicle	427.27	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	6.38	7.98	-----	-----
		U_0 - L_1	298.99	-7.65	8.67	-2.21	14.21	0.90	1.00	7.80	-6.89	14.21	-2.21	Pedestrian	Vehicle	424.45	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	17.40	21.75	-----	-----
		U_1 - L_2	284.21	-21.52	75.29	-2.66	14.05	0.90	1.00	67.76	-19.37	14.05	-2.66	Vehicle	Vehicle	516.29	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	4.37	7.28	-----	-----
		U_2 - L_3	221.42	-22.83	65.84	-2.85	11.83	0.90	1.00	59.25	-20.55	11.83	-2.85	Vehicle	Vehicle	416.23	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	4.35	7.24	-----	-----
		U_3 - L_4	178.30	-25.79	63.43	-3.23	10.08	0.90	1.00	57.09	-23.21	10.08	-3.23	Vehicle	Vehicle	355.48	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	4.19	6.99	-----	-----
		U_4 - L_5	53.50	-21.86	36.26	-2.87	5.37	0.90	1.00	32.63	-19.67	5.37	-2.87	Vehicle	Vehicle	140.25	-----	0.00	16.85	16.8486	556.00	131.71	15.3958	1.9682	70.40	28.29	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	6.88	11.47	-----	-----
		U_5 - L_6	-16.51	-21.73	26.44	-2.92	2.23	0.90	1.00	23.79	-19.56	2.23	-2.92	Vehicle	Vehicle	30.08	-63.85	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	11.20	18.67	9.49	15.81
		U_6 - L_7	-133.21	-16.56	-6.36	-2.50	-2.48	0.90	1.00	-5.72	-14.91	-2.48	-2.50	Pedestrian	Vehicle	-----	-205.47	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	9.10	15.17
		U_7 - L_7	208.77	2.11	41.92	0.00	8.33	0.90	1.00	37.73	1.90	8.33	0.00	Vehicle	Vehicle	353.15	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	6.27	10.46	-----	-----
		U_8 - L_8	289.58	2.98	66.77	0.00	8.99	0.90	1.00	60.09	2.68	8.99	0.00	Vehicle	Vehicle	506.65	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	4.20	7.00	-----	-----
		U_{10} - L_9	327.97	4.94	69.69	1.53	11.09	0.90	1.00	62.72	4.44	11.09	1.53	Vehicle	Pedestrian	562.26	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	4.30	7.17	-----	-----
		U_{11} - L_{10}	349.25	-5.61	79.04	0.55	12.45	0.90	1.00	71.14	-5.05	12.45	0.55	Vehicle	Vehicle	608.16	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	4.18	6.96	-----	-----
		U_{12} - L_{11}	358.20	-11.74	74.82	0.48	13.32	0.90	1.00	67.34	-10.57	13.32	0.48	Vehicle	Vehicle	611.56	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	4.33	7.22	-----	-----
		U_{13} - L_{12}	307.75	-23.74	64.95	-0.24	12.26	0.90	1.00	58.45	-21.36	12.26	-0.24	Vehicle	Vehicle	526.72	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	4.82	8.04	-----	-----
		U_{14} - L_{13}	260.20	-15.15	53.92	-1.50	11.72	0.90	1.00	48.53	-13.64	11.72	-1.50	Vehicle	Vehicle	443.41	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	6.40	10.66	-----	-----
		U_{15} - L_{15}	208.42	-16.43	57.59	-2.51	11.04	0.90	1.00	51.83	-14.78	11.04	-2.51	Vehicle	Vehicle	383.25	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	5.12	8.53	-----	-----
		U_{16} - L_{16}	243.55	-13.56	70.59	-1.48	11.54	0.90	1.00	63.53	-12.21	11.54	-1.48	Vehicle	Vehicle	454.27	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	3.84	6.41	-----	-----
		U_{17} - L_{17}	255.86	-10.17	70.44	-0.85	11.67	0.90	1.00	63.39	-9.15	11.67	-0.85	Vehicle	Vehicle	469.98	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	4.30	7.17	-----	-----
		U_{18} - L_{18}	235.29	-10.03	70.80	-0.75	10.45	0.90	1.00	63.72	-9.02	10.45	-0.75	Vehicle	Vehicle	443.94	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	3.91	6.52	-----	-----
		U_{19} - L_{19}	212.11	-4.71	62.59	0.01	8.95	0.90	1.00	56.33	-4.24	8.95	0.01	Vehicle	Vehicle	397.79	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	4.67	7.78	-----	-----
	Structure 2	U_{20} - L_{20}	168.24	-10.03	54.95	0.06	9.14	0.90	1.00	49.46	-9.02	9.14	0.06	Vehicle	Vehicle	325.87	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	5.28	8.80	-----	-----
		U_{21} - L_{21}	97.26	-6.75	26.56	0.46	6.66	0.90	1.00	23.90	-6.08	6.66	0.46	Vehicle	Vehicle	178.23	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	8.29	13.82	-----	-----
		U_{22} - L_{22}	30.60	-6.68	17.84	0.58	3.66	0.90	1.00	16.06	-6.01	3.66	0.58	Vehicle	Vehicle	74.57	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	14.84	24.73	-----	-----
		U_{23} - L_{22}	49.78	-5.64	29.99	-0.72	5.11	0.90	1.00	26.99	-5.08	5.11	-0.72	Vehicle	Vehicle	123.20	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	8.40	14.00	-----	-----
		U_{24} - L_{23}	115.07	-6.34	39.32	-0.72	8.00	0.90	1.00	35.39	-5.70	8.00	-0.72	Vehicle	Vehicle	226.26	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	5.30	8.83	-----	-----
		U_{25} - L_{24}	179.22	-10.68	69.73	-0.73	10.10	0.90	1.00	62.76	-9.61	10.10	-0.73	Vehicle	Vehicle	368.96	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	4.05	6.76	-----	-----
		U_{26} - L_{25}	220.97	-10.25	72.69	-0.57	11.89	0.90	1.00	65.42	-9.23	11.89	-0.57	Vehicle	Vehicle	429.01	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	3.94	6.57	-----	-----
		U_{27} - L_{26}	234.87	-18.32	68.31	-0.35	11.45	0.90	1.00	61.48	-16.49	11.45	-0.35	Vehicle	Vehicle	438.52	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	4.06	6.76	-----	-----
		U_{28} - L_{27}	253.15	-18.31	64.35	-0.28	12.25	0.90	1.00	57.91	-16.47	12.25	-0.28	Vehicle	Vehicle	454.56	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	4.74	7.89	-----	-----
		U_{29} - L_{28}	215.91	-32.19	54.66	0.00	10.20	0.90	1.00	49.19	-28.97	10.20	0.00	Vehicle	Vehicle	387.27	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	5.30	8.84	-----	-----
		U_{30} - L_{29}	180.73	-27.23	37.26	-0.90	8.90	0.90	1.00	33.54	-24.51	8.90	-0.90	Vehicle	Vehicle	307.61	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	8.41	14.01	-----	-----
		U_{31} - L_{31}	294.99	-12.97	62.82	-1.64	12.90	0.90	1.00	56.54	-11.67	12.90	-1.64	Vehicle	Vehicle	505.98	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	5.12	8.54	-----	-----
		U_{32} - L_{32}	342.70	-11.62	71.74	-0.55	13.70	0.90	1.00	64.56	-10.45	13.70	-0.55	Vehicle	Vehicle	585.40	-----	0.00	30.63	30.6305	1010.81	131.71	17.8750	2.8427	56.59	29.95	-779.87	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	4.04	6.74	-----	-----
		U_{33} - L_{33}	363.39	-4.00	73.85	0.37	13.78	0.90	1.00	66.47	-3.60	13.78	0.37	Vehicle	Vehicle	616.42	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	4.34	7.24	----

Moment (Start) - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1998

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start-(k-in)	Dead Load End-(k-in)	Live Load (Max) Start-(k-in)	Live Load (Max) End-(k-in)	Pedestrian Load (Max) Start-(k-in)	Pedestrian Load (Min) End-(k-in)	Lane Reduction & Impact Live Load Start-(k-in)	Lane Reduction & Impact Live Load End-(k-in)	Impact Pedestrian Load Max Start-(k-in)	Impact Pedestrian Load Max End-(k-in)
Structure 1	U_0-L_1	-129.89	-23.02	1.03	-1.17	-2.34	-4.83	11.11	-12.64	-25.24	-52.12
	U_1-L_1	-54.81	-51.14	0.28	3.04	-1.46	-9.18	3.00	32.88	-15.80	-99.15
	U_1-L_2	-44.59	-44.50	1.33	1.39	-4.67	-4.32	14.35	14.37	-46.62	-46.59
	U_2-L_2	-52.27	-61.68	2.75	4.32	-5.82	-12.58	29.71	46.67	-62.87	-136.49
	U_2-L_3	-27.43	-50.17	3.04	5.37	-4.98	-14.76	35.36	70.31	-54.74	-162.74
	U_3-L_3	1.19	-145.97	3.58	0.95	-5.85	1.03	35.41	-252.29	-39.32	23.83
	U_3-L_4	34.94	-133.27	3.30	-4.23	-6.12	10.46	41.02	-215.32	-44.36	-4.23
	U_4-L_4	-70.13	-598.66	2.09	5.84	-8.29	15.54	22.54	63.07	-89.58	162.38
	U_4-L_5	528.73	-128.77	17.46	-5.80	0.00	0.00	0.00	0.00	0.00	0.00
	U_5-L_5	69.10	44.97	3.50	-0.06	0.00	0.00	37.78	-6.25	0.00	0.00
	U_5-L_6	101.46	-177.08	5.13	-6.15	0.00	0.00	55.45	-66.37	0.00	0.00
	U_6-L_6	48.68	-160.13	2.46	-2.12	-3.48	-3.66	37.28	-72.95	-5.39	-22.84
	U_6-L_7	-56.63	-218.18	2.73	1.00	-1.36	-5.88	29.61	-12.83	-14.72	-63.47
	U_7-L_7	-173.99	-442.12	1.32	1.32	-4.97	-24.25	16.61	-47.47	-257.89	-257.89
	U_7-L_8	-287.88	-237.50	2.39	1.38	-23.81	-7.53	25.86	14.91	-257.09	-81.28
	U_8-L_8	-196.26	-337.79	2.33	0.16	-6.26	-7.42	25.13	1.76	-67.60	-80.11
	U_8-L_9	-295.52	-154.89	1.02	0.22	-13.05	-3.68	7.44	2.35	-140.98	-39.84
	U_9-L_9	-190.08	-29.82	0.76	-0.71	-7.45	-2.52	8.22	-7.68	-80.42	27.25
	U_9-L_{10}	-179.81	-83.24	0.69	-0.37	-7.75	0.10	7.44	-2.34	-80.86	-4.14
	U_{10}-L_{10}	-290.19	260.74	0.65	-1.68	-9.14	15.59	7.06	-18.16	-98.73	182.49
	U_{10}-L_{11}	-27.02	-172.57	2.10	-3.21	-2.03	-5.42	22.66	-34.64	-21.96	-58.68
	U_{11}-L_{11}	-25.34	-194.81	1.13	-3.13	-1.70	-5.00	22.66	-34.64	-21.96	-58.68
	U_{11}-L_{12}	-52.13	-282.61	0.06	-4.34	-1.20	-8.47	0.67	-46.92	-12.99	-91.47
	U_{12}-L_{12}	-51.61	-339.12	-0.61	-4.91	-0.74	-9.73	0.00	-46.92	-12.99	-91.47
	U_{12}-L_{13}	-360.75	-390.17	1.05	2.26	-7.68	-18.83	11.24	24.40	-82.91	-203.39
	U_{13}-L_{13}	-403.61	-391.89	2.89	3.14	-8.03	-18.83	11.24	24.40	-82.91	-203.39
	U_{13}-L_{14}	-349.76	-208.76	5.21	5.06	-13.49	-31.12	56.31	54.65	-149.72	-336.12
	U_{14}-L_{14}	-253.89	-280.84	4.01	5.58	-31.78	-12.15	43.26	60.30	-343.20	-137.22
	U_{14}-L_{15}	-330.50	-81.45	4.01	5.58	-31.78	-12.15	43.26	60.30	-343.20	-137.22
	U_{15}-L_{15}	-237.13	39.43	5.81	7.26	-18.60	-4.06	62.72	78.40	-200.89	-43.83
	U_{15}-L_{16}	-152.28	53.72	5.81	7.26	-18.60	-4.06	77.35	78.40	-200.89	-43.83
	U_{16}-L_{16}	-116.81	170.72	6.17	4.93	-12.35	2.22	66.64	53.23	-133.39	23.99
	U_{16}-L_{17}	-52.18	50.88	0.12	0.12	-2.39	-0.31	66.64	53.23	-133.39	23.99
	U_{17}-L_{17}	-211.75	1121.87	4.17	9.29	-13.74	26.70	45.00	100.28	-148.37	288.35
	U_{17}-L_{18}	-1029.87	-26.76	-62.82	-6.25	-0.78	2.25	440.87	-67.47	-8.41	24.25
	U_{18}-L_{18}	9.93	548.08	2.89	3.14	-0.39	1.57	17.36	113.76	-1.51	-35.31
	U_{18}-L_{19}	-271.35	25.12	10.24	-3.83	0.00	0.00	110.55	-41.40	0.00	0.00
	U_{19}-L_{19}	-1029.87	-26.76	-62.82	-6.25	-0.78	2.25	75.75	113.76	-148.40	-35.31
	U_{19}-L_{20}	156.48	-8.75	4.10	5.53	-2.91	-1.89	44.25	59.67	-8.95	-20.37
	U_{20}-L_{20}	48.44	11.25	4.99	4.93	-3.55	-6.44	53.41	52.15	-38.32	-69.60
	U_{20}-L_{21}	48.44	11.25	4.99	4.93	-3.55	-6.44	53.41	52.15	-38.32	-69.60
	U_{21}-L_{21}	-92.46	-65.91	4.47	5.50	-8.93	-23.82	48.30	59.35	-96.39	-257.28
	U_{21}-L_{22}	-92.53	-597.45	4.47	5.50	-8.93	-23.82	48.30	59.35	-96.39	-257.28
	U_{22}-L_{22}	-48.21	-31.51	4.40	4.10	-8.17	-2.32	47.53	44.31	-88.18	-25.08
	U_{22}-L_{23}	10.71	137.69	4.82	3.84	-8.12	2.33	52.03	36.04	-88.54	25.16
	U_{23}-L_{23}	57.19	-122.64	5.07	2.14	-12.05	6.78	54.71	23.16	-130.17	73.21
	U_{23}-L_{24}	39.58	3.84	3.70	0.26	-5.26	-5.99	39.57	2.83	-56.75	-10.69
	U_{24}-L_{24}	39.58	3.84	3.70	0.26	-5.26	-5.99	39.57	2.83	-56.75	-10.69
	U_{24}-L_{25}	14.12	818.60	2.51	2.51	-3.19	-24.81	21.51	21.19	-24.87	-270.00
	U_{25}-L_{25}	823.61	100.42	41.19	-9.54	0.00	0.00	444.87	-103.03	0.00	0.00
	U_{25}-L_{26}	150.29	-52.92	7.92	-10.03	-0.72	-5.55	85.53	-108.28	-7.78	-54.55
	U_{26}-L_{26}	17.33	-89.79	5.56	5.63	-2.61	-6.54	60.04	64.04	-28.16	-65.28
	U_{26}-L_{27}	17.33	-89.79	5.56	5.63	-2.61	-6.54	60.04	64.04	-28.16	-65.28
	U_{27}-L_{27}	-75.26	-230.76	5.87	3.71	-4.07	-11.48	63.43	40.02	-43.98	-123.94
	U_{27}-L_{28}	-58.29	-21.41	5.87	3.71	-4.07	-11.48	63.43	40.02	-43.98	-123.94
	U_{28}-L_{28}	-84.35	-278.75	6.74	5.07	-28.63	-12.75	61.94	54.73	-311.37	-137.71
	U_{28}-L_{29}	-84.35	-278.75	6.74	5.07	-28.63	-12.75	61.94	54.73	-311.37	-137.71
	U_{29}-L_{29}	-275.08	-274.62	5.03	5.03	-21.38	-10.75	39.77	5.71	-236.95	-116.07
	U_{29}-L_{30}	-257.08	-269.15	2.23	0.34	-14.21	-7.66	24.03	3.75	-153.41	-82.71
	U_{30}-L_{30}	-275.75	-60.94	2.15	0.34	-14.21	-7.66	24.03	3.75	-153.41	-82.71
	U_{30}-L_{31}	-154.97	-33.11	-1.49	-0.35	-9.65	-2.20	16.09	-3.75	-104.28	-21.56
	U_{31}-L_{31}	-154.97	-33.11	-1.49	-0.35	-9.65	-2.20	16.09	-3.75	-104.28	-21.56
	U_{31}-L_{32}	40.07	-167.86	2.52	-3.10	-2.01	-4.84	27.17	-33.43	-21.71	-52.27
	U_{32}-L_{32}	-10.53	-132.37	2.24	-7.15	-0.97	-2.53	24.15	-77.25	-10.48	-27.29
	U_{32}-L_{33}	-140.16	-260.93	0.26	-7.77	-3.44	-8.85	2.78	8.36	-37.12	-95.61
	U_{33}-L_{33}	-140.16	-260.93	0.26	-7.77	-3.44	-8.85	2.78	8.36	-37.12	-95.61
	U_{33}-L_{34}	-187.10	-276.08	1.31	1.82	-7.97	-24.57	14.16	19.65	-86.03	-265.40
	U_{34}-L_{34}	-322.62	-140.33	1.31	1.82	-7.97	-24.57	14.16	19.65	-86.03	-265.40
	U_{35}-L_{35}	-162.95	-104.84	0.99	2.86	-6.91	-3.51	10.70	30.92	-64.94	-37.90
	U_{36}-L_{36}	-147.84	26.72	2.17	3.39	-11.93	-0.56	23.38	36.61	-128.79	-6.00
	U_{37}-L_{37}	-147.84	26.72	2.17	3.39	-11.93	-0.56	23.38	36.61	-128.79	-6.00
	U_{38}-L_{38}	10.77	46.02	3.10	1.72	-5.45	1.94	33.45	18.55	-58.90	20.98
	U_{39}-L_{39}	10.77	46.02	3.10	1.72	-5.45	1.94	33.45	18.55	-58.90	20.98
	U_{40}-L_{40}	426.23	9.05	19.87	-5.13	0.00	0.00	214.63	-55.30	0.00	0.00
	U_{41}-L_{41}	128.06	54.04	5.94	1.76	-9.02	-1.36	64.17	-18.96	-0.16	-14.72
	U_{42}-L_{42}	70.10	43.62	4.49	3.27	-3.47	-13.13	48.54	35.32	-37.44	-141.79
	U_{43}-L_{43}	14.16	-13.00	3.10	3.10	-0.53	-3.77	41.23	32.76	-10.73	-41.69
	U_{44}-L_{44}	-8.36	-30.51	2.66	4.03	-0.48	-5.28	28.77	-39.23	-101.25	117.75

ZZ Axis Moment Properties

Location	Member	Max. Pos. Mom. Start-k-in	Max. Pos. Mom. End-k-in	S_{bb} (in^3)	S_{tb} (in^3)	Z_z (in^3)	I_z (in^4)	I_{DL} (in^4)	Shape Factor f	M_p (k-in)	Formula (If $P_u/\phi P_{ns} \geq 0.15$)	M_n (k-in)	Equivalent Mom. Factor a	C_m	$C_{b(DL)}$
Structure 1	U_0-L_1	-144.73	-97.31	-223.50	-142.85	90.2	90.24	72.24	1276.46	2147	1328.6	1.41	4206	0.99800004	2974.3
	U_1-L_1	-64.75	4.75	-103.49	-281.32	90.2	90.24	72.24	1276.46	2147	1328.6	1.41	4206	0.99800004	2974.3
	U_1-L_2	-54.24	-54.24	-88.99	-88.99	90.2	90.24	72.24	1276.46	2147	1328.6	1.41	4206	0.99800004	2974.3
	U_2-L_2	-3.58	181.29	-204.17	-213.37	90.2	90.24	72.24	1276.46	2147	1328.6	1.41	4206	0.99800004	2974.3
	U_2-L_3	35.36	70.31	-54.74	-162.74	90.2	90.24	72.24	1276.46	2147	1328.6	1.41	4206	0.99800004	2974.3
	U_3-L_3	35.41	252.29	-39.32	23.83	90.2	90.24	76.71	1276.46	2147	1328.6	1.41	4206	0.99800004	2974.3
	U_3-L_4	41.02	215.32	-44.36	-4.23	90.2	90.24	76.71	1276.46	2147	1328.6	1.41	4206	0.99800004	2974.3
	U_4-L_4	22.54	63.07	-89.58	162.38	90.2	90.24	72.24	1276.46	2147	1328.6	1.41	4206	0.99800004	2974.3
	U_4-L_5	528.73	-128.77	17.46	-5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_5-L_5	69.10	44.97	3.50	-0.06	0.00	0.00	37.78	-6.25	0.00	0.00	0.00	0.00	0.00	0.00
	U_5-L_6	101.46	-177.08	5.13	-6.15	0.00	0.00	55.45	-66.37	0.00	0.00	0.00	0.00	0.00	0.00
	U_6-L_6	48.68	-160.13	2.46	-2.12	-3.48	-3.66	37.28	-72.95	-5.39	-22.84	0.00	0.00	0.00	0.00
	U_6-L_7	-56.63	-218.18	2.73	1.00	-1.36	-5.88	29.61	-12.83	-14.72	-63.47	0.00	0.00	0.00	0.00
	U_7-L_7	-173.99	-442.12	1.32	1.32	-4.97	-24.25	16.61	-47.47	-257.89	-257.89	0.00	0.00	0.00	0.00
	U_7-L_8	-287.88	-237.50	2.39	1.38	-23.81	-7.53	25.86	14.91	-257.09	-81.28	0.00	0.00	0.00	0.00
	U_8-L_8	-196.26	-337.79	2.33	0.16	-6.26	-7.42	25.13	1.76	-67.60	-80.11	0.00	0.00	0.00	0.00
	U_8-L_9	-295.52	-154.89	1.02	0.22	-13.05	-3.68	7.44	2.35	-140.98	-39.84	0.00	0.00	0.00	0.00
	U_9-L_9	-190.08	-29.82	0.76	-0.71	-7.45	-2.52	8.22	-7.68	-80.42	27.25	0.00	0.00	0.00	0.00
	U_9-L_{10}	-179.81	-83.24	0.69	-0.37	-7.75	0.10	7.44	-2.34	-80.86	-4.14	0.00	0.00	0.00	0.00
	U_{10}-L_{10}	-290.19	260.74	0.65	-1.68	-9.14	15.59	7.06	-18.16	-98.73	182.49	0.00	0.00	0.00	0.00
	U_{10}-L_{11}	-27.02	-172.57	2.10	-3.21	-2.03	-5.42	22.66	-34.64	-21.96	-58.68	0.00	0.00	0.00	0.00
	U_{11}-L_{11}	-25.34	-194.81	1.13	-3.13	-1.70	-5.00	22.66	-34.64	-21.96	-58.68	0.00	0.00	0.00	0.00
	U_{11}-L_{12}	-52.13	-282.61	0.06	-4.34	-1.20	-8.47	0.67	-46.92	-12.99	-91.47	0.00	0.00	0.00	0.00
	U_{12}-L_{12}	-51.61	-339.12	-0.61	-4.91	-0.74	-9.73	0.00	-46.92	-12.99	-91.47	0.00	0.00	0.00	0.00
	U_{12}-L_{13}	-360.75	-390.17	1.05	2.26	-7.68	-18.83	11.24	24.40	-82.91	-203.39	0.00	0.00	0.00	0.00
	U_{13}-L_{13}	-403.61	-391.89	2.89	3.14	-8.03	-18.83	11.24	24.40	-82.91	-203.39	0.00	0.00	0.00	0.00
	U_{13}-L_{14}	-349.76	-208.76	5.21	5.06	-13.49	-31.12	56.31	54.65	-149.72	-336.12	0.00	0.00	0.00	0.00
	U_{14}-L_{14}	-253.89	-280.84	4.01	5.58	-31.78	-12.15	43.26	60.30	-343.20	-137.22	0.00	0.00	0.00	0.00
	U_{14}-L_{15}	-330.50	-81.45	4.01	5.58	-31.78	-12.15	43.26	60.30	-343.20	-137.22	0.00	0.00	0.00	0.00
	U_{15}-L_{15}	-237.13	39.43	5.81	7.26	-18.60	-4.06	62.72	78.40	-200.89	-43.83	0.00	0.00	0.00	0.00
	U_{15}-L_{16}	-152.28	53.72	5.81	7.26	-18.60	-4.06	77.35	78.40	-200.89	-43.83	0.00	0.00	0.00	0.00
	U_{16}-L_{16}	-116.81	170.72	6.17	4.93	-12.35	2.22	66.64	53.23	-133.39	23.99	0.00	0.00	0.00	0.00
	U_{16}-L_{17}	-52.18	50.88	0.12	0.12	-2.39	-0.31	66.64	53.23	-133.39	23.99	0.00	0.00	0.00	0.00
	U_{17}-L_{17}	-211.75	1121.87	4.17	9.29	-13.74	26.70	45.00	100.28	-148.37	288.35	0.00	0.00	0.00	0.00
	U_{17}-L_{18}	-1029.87	-26.76	-62.82	-6.25	-0.78	2.25	440.87	-67.47	-8.41	24.25	0.00	0.00	0.00	0.00
	U_{18}-L_{18}	9.93	548.08	2.89	3.14	-0.39	1.57	17.36	113.76	-1.51	-35.31	0.00	0.00	0.00	0.00
	U_{18}-L_{19}	-271.35	25.12	10.24	-3.83	0.00	0.00	110.55	-41.40	0.00	0.00	0.00	0.00	0.00	0.00
	U_{19}-L_{19}	-1029.87	-26.76	-62.82	-6.25	-0.78	2.25	75.75	113.76	-148.40	-35.31	0.00	0.00	0.00	0.00
	U_{19}-L_{20}	156.48	-8.75	4.10	5.53	-2.91	-1.89	44.25	59.67	-8.95	-20.37	0.00	0.00	0.00	0.00
	U_{20}-L_{20}	48.44	11.25	4.99	4.93	-3.55	-6.44	53.41	52.15	-38.32	-69.60	0.00	0.00	0.00	0.00
	U_{20}-L_{21}	48.44	11.25	4.99	4.93	-3.55	-6.44	53.41	52.15	-38.32	-69.60	0.00	0.00	0.00	0.00
	U_{21}-L_{21}	-92.46	-65.91	4.47	5.50	-8.93	-23.82	48.30	59.35	-96.39	-257.28	0.00	0.00	0.00	0.00
	U_{21}-L_{22}	-92.53	-597.45	4.47	5.50	-8.93	-23.82	48.30	59.35	-96.39	-257.28	0.00	0.00	0.00	0.00
	U_{22}-L_{22}	-48.21	-31.51	4.40	4.10	-8.17	-2.32	47.53	44.31	-88.18	-25.08	0.00	0.00	0.00	0.00
	U_{22}-L_{23}	10.71	137.69	4.82	3.84	-8.12	2.33	52.03	36.04	-88.54	25.16	0.00	0.00	0.00	0.00
	U_{23}-L_{23}	57.19	-122.64	5.07	2.14	-12.05	6.78	54.71	23.16	-130.17	73.21	0.00	0.00	0.00	0.00
	U_{23}-L_{24}	39.58	3.84	3.70	0.26	-5.26	-5.99	39.57	2.83	-56.75	-10.69	0.00	0.00	0.00	0.00
	U_{24}-L_{24}	39.58	3.84	3.70	0.26	-5.26	-5.99	39.57	2.83	-56.75	-10.69	0.00	0.00	0.00	0.00
	U_{24}-L_{25}	14.12	818.60	2.51	2.51	-3.19	-24.81	21.51	21.19	-24.87	-270.00	0.00	0.00	0.00	0.00
	U_{25}-L_{25}	823.61	100.42	41.19	-9.54	0.00	0.00	444.87	-103.03	0.00	0.00	0.00	0.00	0.00	0.00
	U_{25}-L_{26}	150.29	-52.92	7.92	-10.03	-0.72	-5.55	85.53	-108.28	-7.78	-54.55	0.00	0.00	0.00	0.00
	U_{26}-L_{26}	17.33	-89.79	5.56	5.63	-2.61	-6.54	60.04	64.04	-28.16	-65.28	0.00	0.00	0.00	0.00
	U_{26}-L_{27}	17.33	-89.79	5.56	5.63	-2.61	-6.54	60.04	64.04	-28.16	-65.28	0.00	0.00	0.00	0.00
	U_{27}-L_{27}	-75.26	-230.76	5.87	3.71	-4.07	-11.48	63.43	40.02	-43.98	-123.94	0.00	0.00	0.00	0.00
	U_{27}-L_{28}	-58.29	-21.41	5.87	3.71	-4.07	-11.48	63.43	40.02	-43.98	-123.94	0.00	0.00	0.00	0.00
	U_{28}-L_{28}	-84.35	-278.75	6.74	5.07	-28.63	-12.75	61.94	54.73	-311.37	-137.71	0.00	0.00	0.00	0.00
	U_{28}-L_{29}	-84.35	-278.75	6.74	5.07	-28.63	-12.75	61.94	54.73	-311.37	-137.71	0.00	0.00	0.00	0.00
	U_{29}-L_{29}	-275.08	-274.62	5.03	5.03	-21.38	-10.75	39.77	5.71	-236.95	-116.07	0.00	0.00	0.00	0.00
	U_{29}-L_{30}	-257.08	-269.15	2.23	0.34	-14.21	-7.66	24.03	3.75	-153.41	-82.71	0.00	0.00	0.00	0.00
	U_{30}-L_{30}	-275.75	-60.94	2.15	0.34	-14.21	-7.66	24.03	3.75	-153.41	-82.71	0.00	0.00	0.00	0.00
	U_{30}-L_{31}	-154.97	-33.11	-1.49	-0.35	-9.65	-2.20	16.09	-3.75	-104.28	-21.56	0.00	0.00	0.00	0.00
	U_{31}-L_{31}	-154.97	-33.11	-1.49	-0.35	-9.65	-2.20	16.09	-3.75	-104.28	-21.56	0.00	0.00	0.00	0.00
	U_{31}-L_{32}	40.07	-167.86	2.52	-3.10	-2.01	-4.84	27.17	-33.43	-21.71	-52.27	0.00	0.00	0.00	0.00
	U_{32}-L_{32}	-10.53	-132.37	2.24	-7.15	-0.97	-2.53	24.15	-77.25	-10.48	-27.29	0.00	0.00	0.00	0.00
	U_{32}-L_{33}	-140.16	-260.93	0.26	-7.77	-3.44	-8.85	2.78	8.36	-37.12	-95.61	0.00	0.00	0.00	0.00
	U_{33}-L_{33}	-140.16	-260.93	0.26	-7.77	-3.44	-8.85	2.78	8.36	-37.12	-95.61	0.00	0.00	0.00	0.00
	U_{33}-L_{34}	-187.10	-276.08	1.31	1.82	-7.97	-24.57	14.16	19.65	-86.03	-265.40	0.00	0.00	0.00	0.00
	U_{34}-L_{34}	-322.62	-140.33	1.31	1.82	-7.97	-24.57	14.16	19.65	-86.03	-265.40	0.00	0.00	0.00	0.00
	U_{35}-L_{35}	-162.95	-104.84	0.99	2.86	-6.91	-3.51	10.70	30.92	-64.94	-37.90	0.00	0.00	0.00	0.00
	U_{36}-L_{36}	-147.84	26.72	2.17	3.39	-11.93	-0.56	23.38	36.61	-128.79	-6.00	0.00	0.00	0.00	0.00
	U_{37}-L_{37}	-147.84	26.72	2.17	3.39	-11.93	-0.56	23.38	36.61	-128.79	-6.00	0.00	0.00	0.00	0.00
	U_{38}-L_{38}	10.77	46.02	3.10	1.72	-5.45	1.94	33.45	18.55	-58.90	20.98	0.00	0.00	0.00	0.00
	U_{39}-L_{39}	10.77	46.02	3.10	1.72	-5.45	1.94	33.45	18.55	-58.90	20.98	0.00	0.00	0.00	0.00
	U_{40}-L_{40}	426.23	9.05	19.87	-5.13	0.00	0.00	214.63	-55.30	0.00	0.00	0.00	0.00	0.00	0.00
	U_{41}-L_{41}	128.06	54.04	5.94	1.76	-9.02	-1.36	64.17	-18.96	-0.16	-14.72	0.00	0.00	0.00	0.00
	U_{42}-L_{42}	70.10	43.62	4.49	3.27	-3.47	-13.13	48.54	35.32	-37.44	-141.79	0.00	0.00	0.00	0.00
	U_{43}-L_{43}	14.16	-13.00	3.10	3.10	-0.53	-3.77	41.23	32.76	-10.73	-41.69	0.00	0.00	0.00	0.00
	U_{44}-L_{44}	-8.36	-30.51	2.66	4.03	-0.48	-5.28	28.77	-39.23	-101.25	117.75	0.00	0.00	0.00	0.00

M_3 Information

YY Axis Moments from STAAD

Location	Member	Max. Neg. Mom. Start-k-in	Max. Neg. Mom. End-k-in	S_{bb} (in^3)	S_{tb} (in^3)	Z_z (in^3)	I_{zz} (in^4)
Structure 1	U_0-L_1	-0.64	-0.97	12.27	3.70	-9.75	-45.96
	U_1-L_1	-1.92	-13.91	4.23	32.12	-12.32	-74.86
	U_1-L_2	-1.92	-13.91	40.94	44.75	104.99	-54.62
	U_2-L_2	-5.25	-3.48	8.10	-7.18	-4.20	-0.32
	U_2-L_3	-18.12	-6.69	37.27	-35.28	0.00	0.00
	U_3-L_3	-35.67	-5.46	0.00	0.00	0.00	0.00
	U_3-L_4	-37.04	-24.57	41.37	-44.67	0.00	0.00
	U_4-L_4	-48.99	-7.29	0.00	0.00	0.00	0.00
	U_4-L_5	-20.19	31.75	0.00	0.00	0.00	0.00
	U_5-L_5	0.21	11.01	0.00	0.00	0.00	0.00
	U_5-L_6	91.15	64.89	0.02	1.02	0.00	0.00
	U_6-L_6	-10.42	-31.70	0.00	0.00	0.00	0.00

Moment (Start) - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: **HS20 Lane**
Condition: **As-Built**

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 1.67
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.80

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1 (Case I considered in Max. Tension/Compression Load)

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_x Information

M_y Information

| Location | Member | ZZ Axis Moments from STAAD: Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) Start (k-in) | Pedestrian Load (Max) End (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Max Start (k-in) | Impact Pedestrian Load Max End (k-in) | ZZ Axis Moment from STAAD: Max. Neg. Mom. Start (k-in) | Max. Neg. Mom. End (k-in) | Max. Neg. Mom. S_{NB} (in^3) | Max. Neg. Mom. S_{NL} (in^3) | Max. Neg. Mom. Z_Z (in^3) | Max. Neg. Mom. I_{ZZ} (in^4) | Shape Factor | Max. Neg. Mom. M_N (k-in) | Formula 1.8 Term * F_y/S_{NB} | Max. Neg. Mom. M_D (k-in) | Equivalent Mom. Factors: a | Equivalent Mom. Factors: C_{mx} | Equivalent Mom. Factors: C_{mx}/a | YY Axis Moments from STAAD: Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) Start (k-in) | Pedestrian Load (Max) End (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Max Start (k-in) | Impact Pedestrian Load Max End (k-in) | Max. Pos. Mom. Start (k-in) | Max. Pos. Mom. End (k-in) | Max. Pos. Mom. S_{PB} (in^3) | Max. Pos. Mom. S_{PL} (in^3) | Max. Pos. Mom. Z_Y (in^3) | Max. Pos. Mom. I_{YY} (in^4) | Shape Factor | Max. Pos. Mom. M_P (k-in) | P_{crit} (kip) | Formula 1.8 Term * F_y/S_{PB} | Max. Pos. Mom. M_D (k-in) | Equivalent Mom. Factors: a | Equivalent Mom. Factors: C_{my} | Equivalent Mom. Factors: C_{my}/a | Tension: Yield: Axial Force (k) | Yield: Moment (k-in) | Yield: Total | Pass | Tension: Fracture: Axial Force (k) | Fracture: Moment (k-in) | Fracture: Total | Pass | Compression: Buckle: Axial Force (k) | Buckle: Moment (k-in) | Buckle: Total | Pass | Compression: Yield: Axial Force (k) | Yield: Moment (k-in) | Yield: Total | Pass |
|---|---|---

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Member
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.33	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
See Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1998

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

North/Truss Vertices

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Min) End (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	U_0~L_1	-66.29	86.22	0.78	-1.02	-2.76	3.31	8.43	-11.02	-29.75	35.76
	U_1~L_1	-14.44	23.27	0.98	-0.99	-2.49	2.64	10.58	-10.70	-26.86	28.46
	U_1~L_2	54.81	-49.24	0.00	0.00	0.00	0.00	11.74	-10.64	-22.60	27.83
	U_2~L_2	36.84	-39.22	1.03	-1.26	-1.77	2.00	11.08	-13.64	-19.08	21.57
	U_2~L_3	49.77	-49.19	1.81	-1.98	-3.41	3.85	19.58	-19.89	0.00	0.00
	U_3~L_3	57.71	-69.80	3.58	-3.79	-6.00	6.78	38.66	-40.94	0.00	0.00
	U_3~L_4	47.73	-57.29	3.66	-3.64	-5.73	6.72	39.94	-38.58	-9.78	2.08
	U_4~L_4	106.28	-118.16	4.70	-5.01	-9.15	9.11	50.76	-54.08	-1.58	1.22
	U_4~L_5	-10.96	6.72	4.87	-5.89	-3.76	4.49	52.57	-53.58	-40.64	48.54
	U_5~L_5	-144.91	167.70	0.27	-0.23	-4.54	5.17	2.91	-2.47	-49.01	55.83
	U_5~L_6	-102.02	95.66	0.14	-0.33	-3.58	3.35	1.52	-3.53	-38.61	36.22
	U_6~L_6	-111.13	106.65	0.00	0.00	-4.32	3.70	0.00	0.00	-46.72	40.04
	U_6~L_7	-96.42	93.90	0.00	0.00	-3.60	3.76	0.00	0.00	-38.87	40.65
	U_7~L_7	-90.91	75.94	0.00	0.00	-3.72	3.91	0.00	0.00	-40.18	42.27
	U_7~L_8	-53.33	39.66	0.00	0.00	-2.16	1.31	0.00	0.00	-23.36	14.16
	U_8~L_8	81.32	-15.87	2.57	-2.68	-0.74	0.81	27.70	-28.98	-7.96	8.69
	U_8~L_9	47.73	-50.39	3.66	-3.64	-5.73	6.72	39.94	-38.58	-9.78	2.08
	U_9~L_9	61.55	-72.81	3.27	-3.42	-6.55	6.56	35.27	-36.94	-5.95	6.02
	U_9~L_{10}	13.11	-138.23	0.34	-0.40	-4.76	5.07	16.58	-16.27	-1.53	8.28
	U_{10}~L_{10}	157.87	-153.86	5.51	-6.20	-9.78	9.70	70.32	-66.91	-8.41	7.54
	U_{10}~L_{11}	-131.38	-213.66	2.92	-5.23	-6.34	0.57	31.54	-56.47	-3.63	6.10
	U_{11}~L_{11}	-147.13	191.01	0.85	-1.08	-4.16	4.73	0.00	0.00	-17.43	22.13
	U_{11}~L_{12}	-122.87	130.77	0.98	-1.02	-4.75	5.08	10.62	-10.99	-31.51	34.83
	U_{12}~L_{12}	-82.46	69.03	0.78	-0.80	-2.79	2.98	8.40	-8.60	-30.16	32.15
	U_{12}~L_{13}	-37.86	-43.29	1.60	-1.80	-0.97	0.97	16.25	-16.68	-2.87	3.06
	U_{13}~L_{13}	-9.11	15.69	1.17	-1.22	-2.43	2.72	12.58	-13.12	-29.24	29.41
	U_{13}~L_{14}	14.84	-14.93	0.97	-1.10	-2.03	2.11	10.52	-11.86	-21.91	22.82
	U_{14}~L_{14}	39.69	-45.43	1.55	-1.77	-3.13	3.00	16.25	-17.13	-29.24	29.41
	U_{14}~L_{15}	88.81	-97.92	4.00	-4.09	0.00	0.00	43.18	-44.19	0.00	0.00
	U_{15}~L_{15}	133.08	-153.22	3.39	-3.82	-7.04	7.19	47.73	-50.39	-3.66	3.64
	U_{15}~L_{16}	140.09	-147.00	5.60	-6.00	-9.03	8.10	60.49	-64.90	-8.31	1.07
	U_{16}~L_{16}	148.96	-153.44	5.62	-5.89	-9.18	9.28	60.70	-63.62	-1.97	7.02
	U_{16}~L_{17}	143.97	-139.96	5.82	-6.02	-9.75	9.75	75.91	-75.31	-6.46	4.62
	U_{17}~L_{17}	185.41	-182.32	7.03	-6.97	-9.60	9.43	75.91	-75.31	-6.46	4.62
	U_{17}~L_{18}	72.60	-73.1	3.60	-3.60	-5.00	4.80	37.86	-37.36	-3.04	2.80
	U_{18}~L_{18}	-128.28	-129.98	1.16	-1.02	-6.41	6.32	12.50	-11.03	-69.22	68.21
	U_{18}~L_{19}	-81.70	-84.21	1.72	-1.52	-4.11	4.05	8.88	-7.84	-44.01	43.37
	U_{19}~L_{19}	-125.94	122.64	0.52	-1.03	-7.56	7.40	9.88	-11.11	-81.67	80.44
	U_{19}~L_{20}	-109.69	106.91	0.68	-0.92	-5.97	6.55	7.39	-9.96	-64.52	70.78
	U_{20}~L_{20}	-83.25	83.74	0.25	-0.30	-2.80	3.00	2.67	-3.25	-30.24	32.38
	U_{20}~L_{21}	-29.76	24.19	0.12	-0.14	-1.39	1.50	1.33	-1.62	-15.12	16.61
	U_{21}~L_{21}	-4.28	1.60	0.54	-0.61	-0.69	0.81	5.81	-6.53	-7.43	8.72
	U_{21}~L_{22}	38.81	37.74	2.80	-3.08	-0.37	0.39	30.81	-33.25	-3.97	4.23
	U_{22}~L_{22}	62.68	61.36	4.33	-4.30	-0.54	0.55	46.74	-46.39	-5.81	6.36
	U_{22}~L_{23}	92.64	92.05	6.49	-6.45	-0.81	0.82	69.57	-69.58	-8.72	9.54
	U_{23}~L_{23}	106.60	105.79	8.32	-8.41	-1.13	1.16	89.87	-90.79	-12.20	12.53
	U_{23}~L_{24}	114.56	114.55	7.83	-7.65	-0.74	0.57	84.33	-84.62	-7.94	6.19
	U_{24}~L_{24}	113.70	113.70	5.83	-5.70	-0.30	0.00	84.33	-84.62	-7.94	6.19
	U_{24}~L_{25}	-121.12	118.67	0.88	-0.84	-6.18	6.16	9.55	-9.08	-66.72	66.50
	U_{25}~L_{25}	-92.37	86.40	0.69	-0.59	-5.19	4.54	7.43	-10.65	-56.03	50.06
	U_{25}~L_{26}	-43.45	43.09	0.00	0.00	-4.25	4.39	0.00	0.00	-45.85	47.41
	U_{26}~L_{26}	-96.77	103.11	0.03	-0.17	-4.77	5.12	0.37	-1.84	-51.47	55.29
	U_{26}~L_{27}	-91.90	97.09	0.00	0.00	-4.53	4.87	0.00	0.00	-48.08	51.66
	U_{27}~L_{27}	-83.45	70.99	0.00	0.00	-4.05	4.39	0.00	0.00	-45.85	47.41
	U_{27}~L_{28}	-32.66	38.67	0.00	0.00	-1.22	1.44	0.00	0.00	-13.20	15.57
	U_{28}~L_{28}	-12.96	12.73	0.00	0.00	-0.48	0.57	0.00	0.00	-5.22	6.16
	U_{28}~L_{29}	4.46	-6.40	2.18	-2.48	-1.25	1.30	36.78	-49.00	-23.48	19.40
	U_{29}~L_{29}	26.79	-29.70	3.49	-3.89	-1.99	2.08	34.43	-45.89	-37.36	30.87
	U_{29}~L_{30}	47.22	-50.55	3.40	-3.59	-5.95	5.96	36.76	-38.77	-10.26	10.36
	U_{30}~L_{30}	67.97	-71.40	3.40	-3.59	-5.95	5.96	36.76	-38.77	-10.26	10.36
	U_{30}~L_{31}	104.86	-112.00	7.10	-6.91	-1.36	1.28	76.64	-74.57	-14.66	13.79
	U_{31}~L_{31}	108.12	-132.79	3.05	-6.07	-0.68	1.11	32.98	-65.56	-7.35	12.03
	U_{31}~L_{32}	124.18	124.18	5.53	-5.39	-0.26	0.00	54.81	-54.29	0.00	0.00
	U_{32}~L_{32}	-109.22	116.95	0.52	-0.49	-4.19	4.39	9.64	-5.31	-49.25	47.36
	U_{32}~L_{33}	-93.53	93.53	0.00	0.00	-3.60	3.60	0.00	0.00	-45.85	47.41
	U_{33}~L_{33}	-48.65	58.79	0.43	-0.44	-2.66	2.73	4.68	-4.73	-27.65	29.45
	U_{33}~L_{34}	16.55	-62.89	0.63	-0.64	-2.84	30.38	8.59	-7.97	-14.84	15.28
	U_{34}~L_{34}	-5.41	11.55	0.68	-0.73	-2.92	3.08	7.07	-7.83	-30.13	31.65
	U_{34}~L_{35}	27.86	-30.67	0.86	-0.90	0.00	0.00	9.27	-9.67	0.00	0.00
	U_{35}~L_{35}	55.70	-61.34	1.72	-1.80	0.00	0.00	18.54	-19.34	0.00	0.00
	U_{35}~L_{36}	85.70	-83.03	3.79	-4.04	0.00	0.00	40.50	-43.61	0.00	0.00
	U_{36}~L_{36}	101.37	-101.37	3.58	-4.08	0.00	0.00	46.13	-47.42	0.00	0.00
	U_{36}~L_{37}	95.70	-87.91	4.27	-4.39	-0.68	0.19	46.13	-47.42	-8.87	2.06
	U_{37}~L_{37}	59.77	-68.03	3.79	-4.04	0.00	0.00	59.77	-68.03	-2.00	1.79
	U_{37}~L_{38}	52.77	-74.32	4.56	-5.92	-3.94	4.45	49.25	-63.91	-42.93	48.09
	U_{38}~L_{38}	99.11	-131.50	5.08	-6.04	0.00	0.00	54.81	-69.24	0.00	0.00
	U_{38}~L_{39}	95.00	-87.91	4.27	-4.39	-0.08	0.19	46.13	-47.42	-2.87	2.06
	U_{39}~L_{39}	135.46	-154.10	5.53	-6.30	-5.19	0.17	59.77	-68.03	-2.00	1.79
	U_{39}~L_{40}	52.77	-74.32	4.56	-5.92	-3.94	4.45	49.25	-63.91	-42.93	48.09
	U_{40}~L_{40}	-42.87	69.54	0.21	-0.18	-3.90	4.16	2.26	-1.97	-42.13	44.92
	U_{40}~L_{41}	-41.65	35.38	0.12	-0.32	-2.91	2.87	1.27	-3.40	-31.44	31.03
	U_{41}~L_{41}	-36.85	40.05	0.00	0.00	-3.44	3.57	0.00	0.00	-37.17	38.56
	U_{41}~L_{42}	-39.84	39.91	0.00	0.00	-1.93	2.02	0.00	0.00	-20.89	21.79
	U_{42}~L_{42}	-38.87	40.30	1.37	-1.49	-1.18	1.40	14.84	-16.05	-12.75	15.07
	U_{42}~L_{43}	-13.42	14.14	2.11	-2.68	-1.40	1.59	22.77	-28.89	-15.15	17.15
	U_{43}~L_{43}	5.87	-9.62	3.93	-3.58	-1.47	1.31	42.85	-38.62	-15.87	14.18
	U_{43}~L_{44}	20.15	-40.81	1.09	-1.92	-0.45	0.66	11.74	-11.02	-4.87	7.11

M_2 Information

ZZ Axis Moment Properties

Location	Member	Max. Neg. Mom. Start (k-ft)	Max. Neg. Mom. End (k-ft)	S_{top} (in^3)	S_b (in^3)	Z_z (in^3)	I_z (in^4)	Shape Factor f	M_p (k-in)	Formula 1.8 Term 1 F_y*S_{top}	M_y (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor $C_{m(x)}$	$C_{m(x)}$
Structure 1	U_0~L_1	-54.90	88.22	-137.64	189.56	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5
	U_1~L_1	4.16	7.07	-76.97	91.91	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5
	U_1~L_2	35.89	-38.51	-40.73	53.08	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5
	U_2~L_2	71.90	-76.34	6.64	9.04	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5
	U_2~L_3	-107.13	107.05	-63.05	75.4	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5
	U_3~L_3	158.79	-178.44	75.02	-90.73	19.4	19.37	19.31	29.87	3	907.0	1.54	986	1.5
	U_3~L_4	139.94	-138.58	-9.78	2.08	15.4	15.42	20.80	20.67	34.66	1078.0	1.67	1144	1.5
	U_4~L_4	245.15	-270.77	134.75	-150.96	18.5	18.45	18.36	30.78	7	1020.9	1.67	1016	1.5
	U_4~L_5	99.47	-129.03	-102.30	113.89	107.1	107.13	107.11	162.71	26	2058.9	1.52	5369	1.5
	U_5~L_5	-192.66	212.65	-294.57	338.96	33.1	33.05	32.91	54.51	14	1408.8	1.65	1799	1.5
	U_5~L_6	-129.32	116.71	-218.27	202.64	39.5	39.52	39.44	58.46	14	1309.7	1.65	1929	1.5
	U_6~L_6	-144.44	203.64	-346.87	322.89	42.74	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5
	U_6~L_7	-125.35	122.07	-269.56	210.15	21.1	21.09	21.09	36.48	10	1137.6	1.68	1170	1.5
	U_7~L_7	-76.18	98.72	-166.23	190.31	17.2	17.24	17.24	26.54	2	824.7	1.54	876	1.5
	U_7~L_8	-44.11	-11.56	-71.02	82.47	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5
	U_8~L_8	70.83	-83.42	-6.44	-1.80	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5
	U_8~L_9	139.94	-138.60	44.99	-48.59	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5
	U_9~L_9	156.43	-174.68	67.12	-81.62	19.4	19.37	19.37	29.87	3	907.0	1.54	986	1.5
	U_9~L_{10}	56.58	-58.27	35.63	-38.08	155.16	-161.71	33.1	35.09	35.09	33.51	4	1187.1	1.53	1766	1.5
	U_{10}~L_{10}	157.87	-153.86	5.51	-6.20	-9.78	9.70	70.32	-66.91	-8.41	7.54	0.00	0.00	0.00	0.00
	U_{10}~L_{11}	-131.38	-213.66	2.92	-5.23	-6.34	0.57	31.54	-56.47	-3.63	6.10	0.00	0.00	0.00	0.00
	U_{11}~L_{11}	-147.13	191.01	0.85	-1.08	-4.16	4.73	0.00	0.00	-17.43	22.13	-12.06	15.66	86.00	111.70
	U_{11}~L_{12}	-122.87	130.77	0.98	-1.02	-4.75	5.08	10.62	-10.99	-31.51	34.83	0.00	0.00	0.00	0.00
	U_{12}~L_{12}	-82.46	69.03	0.78	-0.80	-2.79	2.98	8.40	-8.60	-30.16	32.15	0.00	0.00	0.00	0.00
	U_{12}~L_{13}	-37.86	-43.29	1.60	-1.80	-0.97	0.97	16.25	-16.68	-2.87	3.06	0.00	0.00	0.00	0.00
	U_{13}~L_{13}	-9.11	15.69	1.17	-1.22	-2.43	2.72	12.58	-13.12	-29.24	29.41	0.00	0.00	0.00	0.00
	U_{13}~L_{14}	14.84	-14.93	0.97	-1.10	-2.03	2.11	10.52	-11.86	-21.91	22.82	0.00	0.00	0.00	0.00
	U_{14}~L_{14}	39.69	-45.43	1.55	-1.77	-3.13	3.00	16.25	-17.13	-29.24	29.41	0.00	0.00	0.00	0.00
	U_{14}~L_{15}	88.81	-97.92	4.00	-4.09	0.00	0.00	43.18	-44.19	0.00	0.00	0.00	0.00	0.00	0.00
	U_{15}~L_{15}	133.08	-153.22	3.39	-3.82	-7.04	7.19	47.73	-50.39	-3.66	3.64	0.00	0.00	0.00	0.00
	U_{15}~L_{16}	140.09	-147.00	5.60	-6.00	-9.03	8.10	60.49	-64.90	-8.31	1.07	0.00	0.00	0.00	0.00
	U_{16}~L_{16}	148.96	-153.44	5.62	-5.89	-9.18	9.28	60.70	-63.62	-1.97	7.02	0.00	0.00	0.00	0.00
	U_{16}~L_{17}	143.97	-139.96	5.82	-6.02	-9.75	9.75	75.91	-75.31	-6.46	4.62	-12.06	15.66	86.00	111.70
	U_{17}~L_{17}	185.41	-182.32	7.03	-6.97	-9.60	9.43	75.91	-75.31	-6.46	4.62	0.00	0.00	0.00	0.00
	U_{17}~L_{18}	72.60	-73.1	3.60	-3.60	-5.00	4.80	37.86	-37.36	-3.04	2.80	0.00	0.00	0.00	0.00
	U_{18}~L_{18}	-128.28	-129.98	1.16	-1.02	-6.41	6.32	12.50	-11.03	-69.22	68.21	0.00	0.00	0.00	0.00
	U_{18}~L_{19}	-81.70	-84.21	1.72	-1.52	-4.11	4.05	8.88	-7.84	-44.01	43.37	0.00	0.00	0.00	0.00
	U_{19}~L_{19}	-125.94	122.64	0.52	-1.03	-7.56	7.40	9.88	-11.11	-81.67	80.44	0.00	0.00	0.00	0.00
	U_{19}~L_{20}	-109.69	106.91	0.68	-0.92	-5.97	6.55	7.39	-9.96	-64.52	70.78	0.00	0.00	0.00	0.00
	U_{20}~L_{20}	-83.25	83.74	0.25	-0.30	-2.80	3.00	2.67	-3.25	-30.24	32.38	0.00	0.00	0.00	0.00
	U_{20}~L_{21}	-29.76	24.19	0.12	-0.14	-1.39	1.50	1.33	-1.62	-15.12	16.61	0.00	0.00	0.00	0.00
	U_{21}~L_{21}	-4.28	1.60	0.54	-0.61	-0.69	0.81	5.81	-6.53	-7.43	8.72	0.00	0.00	0.00	0.00
	U_{21}~L_{22}	38.81	37.74	2.80	-3.08	-0.37	0.39	30.81	-33.25	-3.97	4.23	0.00	0.00	0.00	0.00
	U_{22}~L_{22}	62.68	61.36	4.33	-4.30	-0.54	0.55	46.74	-46.39	-5.81	6.36	0.00	0.00	0.00	0.00
	U_{22}~L_{23}	92.64	92.05	6.49	-6.45	-0.81	0.82	69.57	-69.58	-8.72	9.54	0.00	0.00	0.00	0.00
	U_{23}~L_{23}	106.60	105.79	8.32	-8.41	-1.13	1.16	89.87	-90.79	-12.20	12.53	0.00	0.00	0.00	0.00
	U_{23}~L_{24}	114.56	114.55	7.83	-7.65	-0.74	0.57	84.33	-84.62	-7.94	6.19	0.00	0.00	0.00	0.00
	U_{24}~L_{24}	113.70	113.70	5.83	-5.70	-0.30	0.00	84.33	-84.62	-7.94	6.19	0.00	0.00	0.00	0.00
	U_{24}~L_{25}	-121.12	118.67	0.88	-0.84	-6.18	6.16	9.55	-9.08	-66.72	66.50	0.00	0.00	0.00	0.00
	U_{25}~L_{25}	-92.37	86.40	0.69	-0.59	-5.19	4.54	7.43	-10.65	-56.03	50.06	0.00	0.00	0.00	0.00
	U_{25}~L_{26}	-43.45	43.09	0.00	0.00	-4.25	4.39	0.00	0.00	-45.85	47.41	0.00	0.00	0.00	0.00
	U_{26}~L_{26}	-96.77	103.11	0.03	-0.17	-4.77	5.12	0.37	-1.84	-51.47	55.29	0.00	0.00	0.00	0.00
	U_{26}~L_{27}	-91.90	97.09	0.00	0.00	-4.53	4.87	0.00	0.00	-48.08	51.66	0.00	0.00	0.00	0.00
	U_{27}~L_{27}	-83.45	70.99	0.00	0.00	-4.05	4.39	0.00	0.00	-45.85	47.41	0.00	0.00	0.00	0.00
	U_{27}~L_{28}	-32.66	38.67	0.00	0.00	-1.22	1.44	0.00	0.00	-13.20	15.57	0.00	0.00	0.00	0.00
	U_{28}~L_{28}	-12.96	12.73	0.00	0.00	-0.48	0.57	0.00	0.00	-5.22	6.16	0.00	0.00	0.00	0.00
	U_{28}~L_{29}	4.46	-6.40	2.18	-2.48	-1.25	1.30	36.78	-49.00	-23.48	19.40	15.4	15.42	15.42	23.71
	U_{29}~L_{29}	26.79	-29.70	3.49	-3.89	-1.99	2.08	34.43	-45.89	-37.36	30.87	15.4	15.42	15.42	23.71
	U_{29}~L_{30}	47.22	-50.55	3.40	-3.59	-5.95	5.96	36.76	-38.77	-10.26	10.36	0.00	0.00	0.00	0.00
	U_{30}~L_{30}	67.97	-71.40	3.40	-3.59	-5.95	5.96	36.76	-38.77	-10.26	10.36	0.00	0.00	0.00	0.00
	U_{30}~L_{31}	104.86	-112.00	7.10	-6.91	-1.36	1.28	76.64	-74.57	-14.66	13.79	0.00	0.00	0.00	0.00
	U_{31}~L_{31}	108.12	-132.79	3.05	-6.07	-0.68	1.11	32.98	-65.56	-7.35	12.03	0.00	0.00	0.00	0.00
	U_{31}~L_{32}	124.18	124.18	5.53	-5.39	-0.26	0.00	54.81	-54.29	0.00	0.00	0.00	0.00	0.00	0.00
	U_{32}~L_{32}	-109.22	116.95	0.52	-0.49	-4.19	4.39	9.64	-5.31	-49.25	47.36	15.4	15.42	15.42	23.71
	U_{32}~L_{33}	-93.53	93.53	0.00	0.00	-3.60	3.60	0.00	0.00	-45.85	47.41	0.00	0.00	0.00	0.00
	U_{33}~L_{33}	-48.65	58.79	0.43	-0.44	-2.66	2.73	4.68	-4.73	-27.65	29.45	0.00	0.00	0.00	0.00
	U_{33}~L_{34}	16.55	-62.89	0.63	-0.64	-2.84	30.38	8.59	-7.97	-14.84	15.28	15.4	15.42	15.42	23.71
	U_{34}~L_{34}	-5.41	11.55	0.68	-0.73	-2.92	3.08	7.07	-7.83	-30.13	31.65	15.4	15.42	15.42	23.71
	U_{34}~L_{35}	27.86	-30.67	0.86	-0.90	0.00	0.04	9.27	-9.67	0.00	0.00	0.00	0.00	0.00	0.00
	U_{35}~L_{35}	55.70	-61.34	1.72	-1.80	0.00	0.00	18.54	-19.34	0.00	0.00	0.00	0.00	0.00	0.00
	U_{35}~L_{36}	85.70	-83.03	3.79	-4.04	0.00	0.00	40.50	-43.61	0.00	0.00	0.00	0.00	0.00	0.00
	U_{36}~L_{36}	101.37	-101.37	3.58	-4.08	0.00	0.00	46.13	-47.42	0.00	0.00	0.00	0.00	0.00	0.00
	U_{36}~L_{37}	95.70	-87.91	4.27	-4.39	-0.68	0.19	46.13	-47.42	-8.87	2.06	0.00	0.00	0.00	0.00
	U_{37}~L_{37}	59.77	-68.03	3.79	-4.04	0.00	0.00	59.77	-68.03	-2.00	1.79	0.00	0.00	0.00	0.00
	U_{37}~L_{38}	52.77	-74.32	4.56	-5.92	-3.94	4.45	49.25	-63.91	-42.93	48.09	15.4	15.42	15.42	23.71
	U_{38}~L_{38}	99.11	-131.50	5.08	-6.04	0.00	0.00	54.81	-69.24	0.00	0.00	0.00	0.00	0.00	0.00
	U_{38}~L_{39}	95.00	-87.91	4.27	-4.39	-0.08	0.19	46.13	-47.42	-2.87	2.06	0.00	0.00	0.00	0.00
	U_{39}~L_{39}	135.46	-154.10	5.53	-6.30	-5.19	0.17	59.77	-68.03	-2.00	1.79	0.00	0.00	0.00	0.00
	U_{39}~L_{40}	52.77	-74.32	4.56	-5.92	-3.94	4.45	49.25	-63.91	-42.93	48.09	15.4	15.42	15.42	23.71
	U_{40}~L_{40}	-42.87	69.54	0.21	-0.18	-3.90	4.16	2.26	-1.97	-42.13	44.92	15.4	15.42	15.

Moment (Start) - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.60

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
Gusset Plate Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Max) End (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	U_1-L_1	-23.44	7.53	0.32	-5.25	-1.15	0.76				
	U_1-L_2	-3.41	-8.42	0.40	-0.15	-0.96	0.22				
	U_2-L_2	-17.01	-0.17	0.07	-1.21	0.10					
	U_2-L_3	-7.93	-13.37	0.46	0.12	-0.82	-0.97				
	U_3-L_3	-14.61	18.52	0.21	-3.75	-0.56	-4.37				
	U_3-L_4	-37.44	76.90	0.47	1.17	-2.69	2.08				
	U_4-L_4	-37.01	20.01	0.36	-3.53	-1.47	1.01				
	U_4-L_5	-8.75	101.69	0.83	1.60	-3.39					
	U_5-L_5	-5.11	118.70	1.30	1.07	-3.87	2.52				
	U_5-L_6	-77.69	73.04	1.76	-0.10	-2.43	2.29				
	U_6-L_6	-43.88	73.22	0.47	0.98	-2.02	1.44				
	U_6-L_7	-72.22	0.30	0.35	1.82	-2.21	-28.47				
	U_7-L_7	-65.20	48.77	0.12	0.04	-2.26	2.10				
	U_7-L_8	-24.90	8.63	0.02	0.08	-1.44	0.36				
	U_8-L_8	-0.81	-22.83	0.01	0.06	-0.46					
	U_8-L_9	-25.30	9.99	0.37	-0.33	-1.47	1.01				
	U_9-L_9	-37.01	20.01	0.36	-3.53	-2.08	1.46				
	U_9-L_{10}	-101.94	74.32	0.50	-0.50	-3.64	3.15				
	U_{10}-L_{10}	-115.87	80.00	0.46	-0.42	-4.18	3.23				
	U_{10}-L_{11}	-75.88	78.94	0.18	-0.18	-1.64	1.16				
	U_{11}-L_{11}	-109.41	98.91	0.67	-0.68	-4.00	3.73				
	U_{11}-L_{12}	-75.76	77.71	0.37	-0.37	-3.77	4.17				
	U_{12}-L_{12}	-90.87	71.82	0.93	-0.79	-3.83	3.06				
	U_{12}-L_{13}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{13}-L_{13}	-20.35	9.86	0.63	-0.54	-1.76	1.28				
	U_{13}-L_{14}	-0.81	-22.83	0.01	0.06	-0.46					
	U_{14}-L_{14}	-8.85	-23.87	0.55	-0.35	-1.54	-2.29				
	U_{14}-L_{15}	-44.41	35.31	0.00	0.00	-2.11	0.30				
	U_{15}-L_{15}	-96.57	69.69	0.39	-0.31	-4.05	2.73				
	U_{15}-L_{16}	-85.40	67.30	0.46	0.50	-3.98	2.19				
	U_{16}-L_{16}	-42.29	133.41	1.54	-0.40	-3.42	3.37				
	U_{16}-L_{17}	-105.84	116.34	0.77	0.33	-4.55	3.97				
	U_{17}-L_{17}	-141.98	130.62	0.99	-0.56	-5.79	5.00				
	U_{17}-L_{18}	-82.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{18}-L_{18}	-11.96	79.20	1.28	0.25	-1.95	2.43				
	U_{18}-L_{19}	-77.27	73.84	0.22	-0.22	-3.16	2.29				
	U_{19}-L_{19}	-66.19	89.97	0.94	-0.72	-4.28	5.00				
	U_{19}-L_{20}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{20}-L_{20}	-58.07	72.69	0.77	-0.14	-3.26	3.03				
	U_{20}-L_{21}	-31.84	37.59	0.47	-0.05	-2.46	1.80				
	U_{21}-L_{21}	-20.27	2.68	0.23	-0.23	-1.67	1.39				
	U_{21}-L_{22}	-10.03	3.77	0.09	0.04	-1.38	-0.01				
	U_{22}-L_{22}	-8.78	2.44	0.01	0.01	-1.12	2.93				
	U_{22}-L_{23}	-19.43	19.57	0.28	0.04	-1.56	1.10				
	U_{23}-L_{23}	-46.53	58.29	0.43	0.07	-2.77	2.43				
	U_{23}-L_{24}	-54.32	68.37	0.71	-0.03	-4.38	4.23				
	U_{24}-L_{24}	-49.49	72.12	0.75	-0.64	-5.25	4.92				
	U_{24}-L_{25}	-35.84	53.55	1.30	0.36	-2.61	3.23				
	U_{25}-L_{25}	-26.26	85.09	0.76	-0.23	-4.03	4.29				
	U_{25}-L_{26}	-78.38	71.14	0.69	0.06	-3.63	2.75				
	U_{26}-L_{26}	-76.64	55.13	0.26	0.35	-3.80	2.53				
	U_{26}-L_{27}	-76.26	59.09	0.76	-0.23	-4.03	4.29				
	U_{27}-L_{27}	-78.38	71.14	0.69	0.06	-3.63	2.75				
	U_{27}-L_{28}	-76.64	55.13	0.26	0.35	-3.80	2.53				
	U_{28}-L_{28}	-26.26	85.09	0.76	-0.23	-4.03	4.29				
	U_{28}-L_{29}	-35.84	53.55	1.30	0.36	-2.61	3.23				
	U_{29}-L_{29}	-49.49	72.12	0.75	-0.64	-5.25	4.92				
	U_{29}-L_{30}	-54.32	68.37	0.71	-0.03	-4.38	4.23				
	U_{30}-L_{30}	-46.53	58.29	0.43	0.07	-2.77	2.43				
	U_{30}-L_{31}	-19.43	19.57	0.28	0.04	-1.56	1.10				
	U_{31}-L_{31}	-10.03	3.77	0.09	0.04	-1.38	-0.01				
	U_{31}-L_{32}	-8.78	2.44	0.01	0.01	-1.12	2.93				
	U_{32}-L_{32}	-20.27	2.68	0.23	-0.23	-1.67	1.39				
	U_{32}-L_{33}	-31.84	37.59	0.47	-0.05	-2.46	1.80				
	U_{33}-L_{33}	-58.07	72.69	0.77	-0.14	-3.26	3.03				
	U_{33}-L_{34}	-42.29	133.41	1.54	-0.40	-3.42	3.37				
	U_{34}-L_{34}	-105.84	116.34	0.77	0.33	-4.55	3.97				
	U_{35}-L_{35}	-85.40	67.30	0.46	0.50	-3.98	2.19				
	U_{35}-L_{36}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{36}-L_{36}	-90.87	71.82	0.93	-0.79	-3.83	3.06				
	U_{36}-L_{37}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{37}-L_{37}	-75.88	78.94	0.18	-0.18	-1.64	1.16				
	U_{37}-L_{38}	-109.41	98.91	0.67	-0.68	-4.00	3.73				
	U_{38}-L_{38}	-75.76	77.71	0.37	-0.37	-3.77	4.17				
	U_{38}-L_{39}	-90.87	71.82	0.93	-0.79	-3.83	3.06				
	U_{39}-L_{39}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{39}-L_{40}	-105.84	116.34	0.77	0.33	-4.55	3.97				
	U_{40}-L_{40}	-141.98	130.62	0.99	-0.56	-5.79	5.00				
	U_{40}-L_{41}	-82.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{41}-L_{41}	-11.96	79.20	1.28	0.25	-1.95	2.43				
	U_{41}-L_{42}	-77.27	73.84	0.22	-0.22	-3.16	2.29				
	U_{42}-L_{42}	-66.19	89.97	0.94	-0.72	-4.28	5.00				
	U_{42}-L_{43}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{43}-L_{43}	-58.07	72.69	0.77	-0.14	-3.26	3.03				
	U_{43}-L_{44}	-31.84	37.59	0.47	-0.05	-2.46	1.80				
	U_{44}-L_{44}	-20.27	2.68	0.23	-0.23	-1.67	1.39				
	U_{44}-L_{45}	-10.03	3.77	0.09	0.04	-1.38	-0.01				
	U_{45}-L_{45}	-8.78	2.44	0.01	0.01	-1.12	2.93				
	U_{45}-L_{46}	-19.43	19.57	0.28	0.04	-1.56	1.10				
	U_{46}-L_{46}	-46.53	58.29	0.43	0.07	-2.77	2.43				
	U_{46}-L_{47}	-54.32	68.37	0.71	-0.03	-4.38	4.23				
	U_{47}-L_{47}	-49.49	72.12	0.75	-0.64	-5.25	4.92				
	U_{47}-L_{48}	-35.84	53.55	1.30	0.36	-2.61	3.23				
	U_{48}-L_{48}	-26.26	85.09	0.76	-0.23	-4.03	4.29				
	U_{48}-L_{49}	-78.38	71.14	0.69	0.06	-3.63	2.75				
	U_{49}-L_{49}	-76.64	55.13	0.26	0.35	-3.80	2.53				
	U_{49}-L_{50}	-76.26	59.09	0.76	-0.23	-4.03	4.29				
	U_{50}-L_{50}	-78.38	71.14	0.69	0.06	-3.63	2.75				
	U_{50}-L_{51}	-76.64	55.13	0.26	0.35	-3.80	2.53				
	U_{51}-L_{51}	-26.26	85.09	0.76	-0.23	-4.03	4.29				
	U_{51}-L_{52}	-35.84	53.55	1.30	0.36	-2.61	3.23				
	U_{52}-L_{52}	-49.49	72.12	0.75	-0.64	-5.25	4.92				
	U_{52}-L_{53}	-54.32	68.37	0.71	-0.03	-4.38	4.23				
	U_{53}-L_{53}	-46.53	58.29	0.43	0.07	-2.77	2.43				
	U_{53}-L_{54}	-19.43	19.57	0.28	0.04	-1.56	1.10				
	U_{54}-L_{54}	-10.03	3.77	0.09	0.04	-1.38	-0.01				
	U_{54}-L_{55}	-8.78	2.44	0.01	0.01	-1.12	2.93				
	U_{55}-L_{55}	-20.27	2.68	0.23	-0.23	-1.67	1.39				
	U_{55}-L_{56}	-31.84	37.59	0.47	-0.05	-2.46	1.80				
	U_{56}-L_{56}	-58.07	72.69	0.77	-0.14	-3.26	3.03				
	U_{56}-L_{57}	-42.29	133.41	1.54	-0.40	-3.42	3.37				
	U_{57}-L_{57}	-105.84	116.34	0.77	0.33	-4.55	3.97				
	U_{58}-L_{58}	-85.40	67.30	0.46	0.50	-3.98	2.19				
	U_{58}-L_{59}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{59}-L_{59}	-90.87	71.82	0.93	-0.79	-3.83	3.06				
	U_{59}-L_{60}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{60}-L_{60}	-75.88	78.94	0.18	-0.18	-1.64	1.16				
	U_{60}-L_{61}	-109.41	98.91	0.67	-0.68	-4.00	3.73				
	U_{61}-L_{61}	-75.76	77.71	0.37	-0.37	-3.77	4.17				
	U_{61}-L_{62}	-90.87	71.82	0.93	-0.79	-3.83	3.06				
	U_{62}-L_{62}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{62}-L_{63}	-105.84	116.34	0.77	0.33	-4.55	3.97				
	U_{63}-L_{63}	-141.98	130.62	0.99	-0.56	-5.79	5.00				
	U_{63}-L_{64}	-82.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{64}-L_{64}	-11.96	79.20	1.28	0.25	-1.95	2.43				
	U_{64}-L_{65}	-77.27	73.84	0.22	-0.22	-3.16	2.29				
	U_{65}-L_{65}	-66.19	89.97	0.94	-0.72	-4.28	5.00				
	U_{65}-L_{66}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{66}-L_{66}	-58.07	72.69	0.77	-0.14	-3.26	3.03				
	U_{66}-L_{67}	-31.84	37.59	0.47	-0.05	-2.46	1.80				
	U_{67}-L_{67}	-20.27	2.68	0.23	-0.23	-1.67	1.39				
	U_{67}-L_{68}	-10.03	3.77	0.09	0.04	-1.38	-0.01				
	U_{68}-L_{68}	-8.78	2.44	0.01	0.01	-1.12	2.93				
	U_{68}-L_{69}	-19.43	19.57	0.28	0.04	-1.56	1.10				
	U_{69}-L_{69}	-46.53	58.29	0.43	0.07	-2.77	2.43				
	U_{69}-L_{70}	-54.32	68.37	0.71	-0.03	-4.38	4.23				
	U_{70}-L_{70}	-49.49	72.12	0.75	-0.64	-5.25	4.92				
	U_{70}-L_{71}	-35.84	53.55	1.30	0.36	-2.61	3.23				
	U_{71}-L_{71}	-26.26	85.09	0.76	-0.23	-4.03	4.29				
	U_{71}-L_{72}	-78.38	71.14	0.69	0.06	-3.63	2.75				
	U_{72}-L_{72}	-76.64	55.13	0.26	0.35	-3.80	2.53				
	U_{72}-L_{73}	-76.26	59.09	0.76	-0.23	-4.03	4.29				
	U_{73}-L_{73}	-78.38	71.14	0.69	0.06	-3.63	2.75				
	U_{73}-L_{74}	-76.64	55.13	0.26	0.35	-3.80	2.53				
	U_{74}-L_{74}	-26.26	85.09	0.76	-0.23	-4.03	4.29				
	U_{74}-L_{75}	-35.84	53.55	1.30	0.36	-2.61	3.23				
	U_{75}-L_{75}	-49.49	72.12	0.75	-0.64	-5.25	4.92				
	U_{75}-L_{76}	-54.32	68.37	0.71	-0.03	-4.38	4.23				
	U_{76}-L_{76}	-46.53	58.29	0.43	0.07	-2.77	2.43				
	U_{76}-L_{77}	-19.43	19.57	0.28	0.04	-1.56	1.10				
	U_{77}-L_{77}	-10.03	3.77	0.09	0.04	-1.38	-0.01				
	U_{77}-L_{78}	-8.78	2.44	0.01	0.01	-1.12	2.93				
	U_{78}-L_{78}	-20.27	2.68	0.23	-0.23	-1.67	1.39				
	U_{78}-L_{79}	-31.84	37.59	0.47	-0.05	-2.46	1.80				
	U_{79}-L_{79}	-58.07	72.69	0.77	-0.14	-3.26	3.03				
	U_{79}-L_{80}	-42.29	133.41	1.54	-0.40	-3.42	3.37				
	U_{80}-L_{80}	-105.84	116.34	0.77	0.33	-4.55	3.97				
	U_{81}-L_{81}	-85.40	67.30	0.46	0.50	-3.98	2.19				
	U_{81}-L_{82}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{82}-L_{82}	-90.87	71.82	0.93	-0.79	-3.83	3.06				
	U_{82}-L_{83}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{83}-L_{83}	-75.88	78.94	0.18	-0.18	-1.64	1.16				
	U_{83}-L_{84}	-109.41	98.91	0.67	-0.68	-4.00	3.73				
	U_{84}-L_{84}	-75.76	77.71	0.37	-0.37	-3.77	4.17				
	U_{84}-L_{85}	-90.87	71.82	0.93	-0.79	-3.83	3.06				
	U_{85}-L_{85}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{85}-L_{86}	-105.84	116.34	0.77	0.33	-4.55	3.97				
	U_{86}-L_{86}	-141.98	130.62	0.99	-0.56	-5.79	5.00				
	U_{86}-L_{87}	-82.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{87}-L_{87}	-11.96	79.20	1.28	0.25	-1.95	2.43				
	U_{87}-L_{88}	-77.27	73.84	0.22	-0.22	-3.16	2.29				
	U_{88}-L_{88}	-66.19	89.97	0.94	-0.72	-4.28	5.00				
	U_{88}-L_{89}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{89}-L_{89}	-58.07	72.69	0.77	-0.14	-3.26	3.03				
	U_{89}-L_{90}	-31.84	37.59	0.47	-0.05	-2.46	1.80				
	U_{90}-L_{90}	-20.27	2.68	0.23	-0.23	-1.67	1.39				
	U_{90}-L_{91}	-10.03	3.77	0.09	0.04	-1.38	-0.01				
	U_{91}-L_{91}	-8.78	2.44	0.01	0.01	-1.12	2.93				
	U_{91}-L_{92}	-19.43	19.57	0.28	0.04	-1.56	1.10				
	U_{92}-L_{92}	-46.53	58.29	0.43	0.07	-2.77	2.43				
	U_{92}-L_{93}	-54.32	68.37	0.71	-0.03	-4.38	4.23				
	U_{93}-L_{93}	-49.49	72.12	0.75	-0.64	-5.25	4.92				
	U_{93}-L_{94}	-35.84	53.55	1.30	0.36	-2.61	3.23				
	U_{94}-L_{94}	-26.26	85.09	0.76	-0.23	-4.03	4.29				
	U_{94}-L_{95}	-78.38	71.14	0.69	0.06	-3.63	2.75				
	U_{95}-L_{95}	-76.64	55.13	0.26	0.35	-3.80	2.53				
	U_{95}-L_{96}	-76.26	59.09	0.76	-0.23	-4.03	4.29				
	U_{96}-L_{96}	-78.38	71.14	0.69	0.06	-3.63	2.75				
	U_{96}-L_{97}	-76.64	55.13	0.26	0.35	-3.80	2.53				
	U_{97}-L_{97}	-26.26	85.09	0.76	-0.23	-4.03	4.29				
	U_{97}-L_{98}	-35.84	53.55	1.30	0.36	-2.61	3.23				
	U_{98}-L_{98}	-49.49	72.12	0.75	-0.64	-5.25	4.92				
	U_{98}-L_{99}	-54.32	68.37	0.71	-0.03	-4.38	4.23				
	U_{99}-L_{99}	-46.53	58.29	0.43	0.07	-2.77	2.43				
	U_{99}-L_{100}	-19.43	19.57	0.28	0.04	-1.56	1.10				
	U_{100}-L_{100}	-10.03	3.77	0.09	0.04	-1.38	-0.01				
	U_{100}-L_{101}	-8.78	2.44	0.01	0.01	-1.12	2.93				
	U_{101}-L_{101}	-20.27	2.68	0.23	-0.23	-1.67	1.39				
	U_{101}-L_{102}	-31.84	37.59	0.47	-0.05	-2.46	1.80				
	U_{102}-L_{102}	-58.07	72.69	0.77	-0.14	-3.26	3.03				
	U_{102}-L_{103}	-42.29	133.41	1.54	-0.40	-3.42	3.37				
	U_{103}-L_{103}	-105.84	116.34	0.77	0.33	-4.55	3.97				
	U_{104}-L_{104}	-85.40	67.30	0.46	0.50	-3.98	2.19				
	U_{104}-L_{105}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{105}-L_{105}	-90.87	71.82	0.93	-0.79	-3.83	3.06				
	U_{105}-L_{106}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{106}-L_{106}	-75.88	78.94	0.18	-0.18	-1.64	1.16				
	U_{106}-L_{107}	-109.41	98.91	0.67	-0.68	-4.00	3.73				
	U_{107}-L_{107}	-75.76	77.71	0.37	-0.37	-3.77	4.17				
	U_{107}-L_{108}	-90.87	71.82	0.93	-0.79	-3.83	3.06				
	U_{108}-L_{108}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{108}-L_{109}	-105.84	116.34	0.77	0.33	-4.55	3.97				
	U_{109}-L_{109}	-141.98	130.62	0.99	-0.56	-5.79	5.00				
	U_{109}-L_{110}	-82.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{110}-L_{110}	-11.96	79.20	1.28	0.25	-1.95	2.43				
	U_{110}-L_{111}	-77.27	73.84	0.22	-0.22	-3.16	2.29				
	U_{111}-L_{111}	-66.19	89.97	0.94	-0.72	-4.28	5.00				
	U_{111}-L_{112}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{112}-L_{112}	-58.07	72.69	0.77	-0.14	-3.26	3.03				
	U_{112}-L_{113}	-31.84	37.59	0.47	-0.05	-2.46	1.80				
	U_{113}-L_{113}	-20.27	2.68	0.23	-0.23	-1.67	1.39				
	U_{113}-L_{114}	-10.03	3.77	0.09	0.04	-1.38	-0.01				
	U_{114}-L_{114}	-8.78	2.44	0.01	0.01	-1.12	2.93				
	U_{114}-L_{115}	-19.43	19.57	0.28	0.04	-1.56	1.10				
	U_{115}-L_{115}	-46.53	58.29	0.43	0.07	-2.77	2.43				
	U_{115}-L_{116}	-54.32	68.37	0.71	-0.03	-4.38	4.23				
	U_{116}-L_{116}	-49.49	72.12	0.75	-0.64	-5.25	4.92				
	U_{116}-L_{117}	-35.84	53.55	1.30	0.36	-2.61	3.23				
	U_{117}-L_{117}	-26.26	85.09	0.76	-0.23	-4.03	4.29				
	U_{117}-L_{118}	-78.38	71.14	0.69	0.06	-3.63	2.75				
	U_{118}-L_{118}	-76.64	55.13	0.26	0.35	-3.80	2.53				
	U_{118}-L_{119}	-76.26	59.09	0.76	-0.23	-4.03	4.29				
	U_{119}-L_{119}	-78.38	71.14	0.69	0.06	-3.63	2.75				
	U_{119}-L_{120}	-76.64	55.13	0.26	0.35	-3.80	2.53				
	U_{120}-L_{120}	-26.26	85.09	0.76	-0.23	-4.03	4.29				
	U_{120}-L_{121}	-35.84	53.55	1.30	0.36	-2.61	3.23				
	U_{121}-L_{121}	-49.49	72.12	0.75	-0.64	-5.25	4.92				
	U_{121}-L_{122}	-54.32	68.37	0.71	-0.03	-4.38	4.23				
	U_{122}-L_{122}	-46.53	58.29	0.43	0.07	-2.77	2.43				
	U_{122}-L_{123}	-19.43	19.57	0.28	0.04	-1.56	1.10				
	U_{123}-L_{123}	-10.03	3.77	0.09	0.04	-1.38	-0.01				
	U_{123}-L_{124}	-8.78	2.44	0.01	0.01	-1.12	2.93				
	U_{124}-L_{124}	-20.27	2.68	0.23	-0.23	-1.67	1.39				
	U_{124}-L_{125}	-31.84	37.59	0.47	-0.05	-2.46	1.80				
	U_{125}-L_{125}	-58.07	72.69	0.77	-0.14	-3.26	3.03				
	U_{125}-L_{126}	-42.29	133.41	1.54	-0.40	-3.42	3.37				
	U_{126}-L_{126}	-105.84	116.34	0.77	0.33	-4.55	3.97				
	U_{127}-L_{127}	-85.40	67.30	0.46	0.50	-3.98	2.19				
	U_{127}-L_{128}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{128}-L_{128}	-90.87	71.82	0.93	-0.79	-3.83	3.06				
	U_{128}-L_{129}	-42.73	133.41	1.54	-0.40	-3.42	4.76				
	U_{129}-L_{129}	-75.88	78.94	0.18	-0.18	-1.64	1.16				
	U_{129}-L_{130}	-109.41	98.91	0.67	-0.68	-4.00	3.73				
	U_{130}-L_{130}	-75.76	77.71	0.37	-0.37	-3.77	4.17				
	U_{130}-L_{131}	-90.87	71.82	0.93	-0.79	-3.83	3.06				
	U_{131}-L_{131}	-42.73	133.41	1.54	-0.40	-3.42	4.76				

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans:
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& per AASHTO Standard Specifications for Highway Bridges, 17th Edition, 2002

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information — ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Min) Start (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	U_0 - U_1	-75.12	-0.70	1.85	-5.69	-2.26	-4.81	16.62	-51.25	-20.34	-43.31
	U_1 - U_2	-46.81	-20.16	0.42	-3.75	-2.09	-8.40	3.75	-20.09	-8.27	-44.60
	U_2 - U_3	-112.19	86.51	1.37	3.60	-5.07	-4.19	12.21	32.40	-45.62	-37.69
	U_3 - U_4	-15.68	66.14	2.31	3.37	-4.43	-3.58	20.75	30.26	-43.45	-122.24
	U_4 - U_5	-9.16	61.58	2.36	3.36	-15.49	-2.91	21.20	30.24	-139.39	-26.19
	U_5 - U_6	42.76	120.09	2.71	3.25	-4.82	-0.17	24.35	29.21	-43.39	-1.50
	U_6 - U_7	93.73	43.54	2.71	2.71	-4.82	-0.17	24.35	14.46	-43.47	-5.23
	U_7 - U_8	-47.40	525.96	0.71	7.10	-7.95	14.55	-47.85	822.14	-216.64	967.46
	U_8 - U_9	474.61	-124.27	7.10	0.71	14.55	-7.95	957.27	-216.64	967.46	-47.85
	U_9 - U_{10}	46.76	20.63	2.99	-0.63	0.00	0.00	26.90	-7.48	0.00	0.00
	U_{10} - U_{11}	64.51	-138.61	3.44	-4.23	0.00	0.00	41.72	-92.18	0.00	0.00
	U_{11} - U_{12}	27.83	-140.42	2.86	-1.26	-3.51	-6.64	25.78	113.36	-11.95	-77.79
	U_{12} - U_{13}	-106.18	-154.99	2.07	0.67	-3.03	-4.20	18.67	6.03	-27.25	-37.76
	U_{13} - U_{14}	-137.97	-302.06	1.36	1.36	-2.52	-2.52	12.11	-47.76	-22.72	-22.72
	U_{14} - U_{15}	-245.66	-182.98	1.35	1.02	-26.24	-6.95	12.11	9.22	-227.18	-62.56
	U_{15} - U_{16}	-123.52	-326.70	1.72	0.19	-5.52	-2.78	15.45	73.71	-49.68	-25.06
	U_{16} - U_{17}	-269.82	-144.58	0.59	0.05	-14.64	-4.29	5.28	0.43	-131.74	-38.50
	U_{17} - U_{18}	-144.10	-67.23	0.66	-0.32	-7.25	1.95	5.94	-6.23	-13.97	0.00
	U_{18} - U_{19}	-70.88	-181.00	0.06	0.99	-0.51	-6.52	0.50	8.88	-4.57	-58.72
	U_{19} - U_{20}	-5.89	-252.22	0.00	1.40	-0.05	-8.73	0.00	12.31	-0.43	-77.03
	U_{20} - U_{21}	-327.18	-325.33	1.48	3.02	-8.66	-12.42	13.35	29.92	-77.02	-111.76
	U_{21} - U_{22}	-338.53	-241.91	2.89	3.98	-12.89	-9.89	26.59	36.58	-152.89	-90.77
	U_{22} - U_{23}	-396.09	-197.74	3.27	6.52	-13.60	-5.43	29.44	58.71	-122.43	-48.91
	U_{23} - U_{24}	-344.15	-179.39	5.02	4.37	-9.12	-25.77	45.16	39.34	-82.04	-231.97
	U_{24} - U_{25}	-226.10	295.71	3.65	4.60	-20.98	-5.48	32.82	44.58	-248.32	-49.33
	U_{25} - U_{26}	-350.17	-90.75	4.25	5.62	-8.10	-3.19	38.25	50.62	-72.87	-28.71
	U_{26} - U_{27}	-227.32	51.03	5.08	5.76	-2.07	-2.90	45.74	51.84	-18.63	-26.12
	U_{27} - U_{28}	-167.07	39.82	5.51	5.42	-8.69	-2.03	49.58	48.76	-81.41	-18.23
	U_{28} - U_{29}	-44.78	39.43	4.38	4.32	-6.99	-1.89	44.09	38.43	-128.87	-62.87
	U_{29} - U_{30}	-8.73	29.50	3.79	3.79	-5.61	-4.52	42.71	34.10	-56.87	-23.65
	U_{30} - U_{31}	-261.00	1065.93	2.53	10.74	-16.35	40.66	22.73	96.63	-147.17	365.91
	U_{31} - U_{32}	-1192.75	-64.49	10.74	0.00	40.66	0.00	363.72	0.00	365.91	0.00
	U_{32} - U_{33}	-25.30	11.62	1.59	4.86	-2.58	-5.86	14.27	43.73	-23.22	-52.70
	U_{33} - U_{34}	-50.58	33.05	3.09	8.84	-5.49	-5.75	28.01	79.58	-44.42	-51.77
	U_{34} - U_{35}	-150.58	33.05	5.09	8.84	-5.49	-5.75	45.79	-79.58	-4.42	-51.77
	U_{35} - U_{36}	-147.30	4.36	3.82	4.76	-2.01	-4.02	34.35	42.97	-18.05	-36.18
	U_{36} - U_{37}	-37.67	-34.01	3.88	4.07	-5.44	-5.60	34.92	36.68	-48.97	-50.38
	U_{37} - U_{38}	-86.04	-71.79	3.88	3.88	-5.44	-5.60	34.92	34.92	-48.97	-50.38
	U_{38} - U_{39}	-60.95	-86.97	3.83	3.88	-23.80	-7.59	34.46	34.90	-214.18	-68.31
	U_{39} - U_{40}	-25.01	-41.17	3.83	3.83	-23.80	-4.15	34.46	34.46	-214.18	-68.31
	U_{40} - U_{41}	-32.99	-28.60	4.02	4.10	-12.20	-3.62	36.20	36.88	-109.81	-32.54
	U_{41} - U_{42}	-15.12	-113.76	4.58	3.57	-8.50	1.83	41.08	32.12	-76.54	16.43
	U_{42} - U_{43}	-38.58	-38.58	3.57	3.57	-8.50	-8.50	32.12	32.12	-76.54	-76.54
	U_{43} - U_{44}	-2.69	-209.81	3.41	2.16	-7.76	4.60	30.68	19.45	-69.80	41.41
	U_{44} - U_{45}	-67.61	-67.61	2.16	2.16	-7.76	-7.76	29.43	19.45	-69.80	-69.80
	U_{45} - U_{46}	-122.28	-116.56	1.60	10.20	-9.01	41.55	14.27	-90.00	0.00	0.00
	U_{46} - U_{47}	-1153.78	-196.80	41.09	-11.70	0.00	0.00	369.83	-105.32	0.00	0.00
	U_{47} - U_{48}	-67.61	-67.61	2.16	2.16	-7.76	-7.76	21.77	-90.00	0.00	0.00
	U_{48} - U_{49}	-178.87	-59.61	7.12	-10.00	0.00	0.00	64.07	-90.00	0.00	0.00
	U_{49} - U_{50}	-68.77	-178.57	5.94	4.89	-4.51	-14.92	53.42	43.92	-40.55	-134.26
	U_{50} - U_{51}	-68.77	-68.77	4.89	4.89	-4.51	-4.51	43.92	43.92	-40.55	-40.55
	U_{51} - U_{52}	-236.40	-153.06	4.56	3.59	-8.92	-27.47	41.00	32.31	-80.24	-247.20
	U_{52} - U_{53}	-98.63	-313.14	4.78	4.50	-27.26	-9.46	43.00	40.46	-245.37	-85.16
	U_{53} - U_{54}	-339.47	-392.96	5.36	5.36	-46.60	-46.60	48.24	48.24	-419.34	-419.34
	U_{54} - U_{55}	-350.27	-386.72	3.52	3.96	-28.56	-7.19	31.66	8.60	-257.03	-64.67
	U_{55} - U_{56}	-278.82	-117.63	3.26	-0.63	-13.02	0.36	21.20	-5.64	-117.18	3.29
	U_{56} - U_{57}	-292.26	-37.53	1.47	-1.47	-7.49	2.80	21.20	-11.14	-69.22	25.20
	U_{57} - U_{58}	-186.18	-74.10	1.82	1.17	-9.44	3.13	16.20	-10.36	-84.98	-28.21
	U_{58} - U_{59}	-139.59	-187.78	2.39	-5.70	-1.13	5.75	21.51	-51.29	-10.13	-61.71
	U_{59} - U_{60}	-47.42	-119.54	0.62	-4.79	-0.38	1.78	7.38	-32.06	-1.69	-29.73
	U_{60} - U_{61}	-52.50	-128.95	1.27	-7.04	-5.32	0.61	11.43	-33.23	-2.91	-5.45
	U_{61} - U_{62}	-277.57	-111.26	1.27	-1.27	-11.26	2.83	5.90	-16.01	-65.54	-35.36
	U_{62} - U_{63}	-277.57	-111.69	5.66	1.78	-7.28	-3.93	5.90	16.01	-65.54	-35.36
	U_{63} - U_{64}	-166.87	-240.33	1.30	1.62	-6.68	-17.88	10.79	14.56	-41.91	-160.94
	U_{64} - U_{65}	-287.50	-127.71	1.64	-1.64	-26.09	-4.96	15.12	-22.24	-233.99	-44.60
	U_{65} - U_{66}	-141.30	-113.93	1.01	1.94	-5.22	-4.40	9.05	17.42	-46.94	-38.62
	U_{66} - U_{67}	-145.41	-22.73	1.54	2.46	-11.54	-0.55	13.87	22.16	-103.90	-4.92
	U_{67} - U_{68}	-141.54	58.98	1.80	2.12	-8.75	2.18	16.20	20.94	-78.72	19.58
	U_{68} - U_{69}	-112.19	86.51	1.37	3.60	-5.07	-4.19	12.21	32.40	-45.62	-37.69
	U_{69} - U_{70}	-15.68	66.14	2.31	3.37	-4.43	-3.58	20.75	30.26	-43.45	-122.24
	U_{70} - U_{71}	-9.16	61.58	2.36	3.36	-15.49	-2.91	21.20	30.24	-139.39	-26.19
	U_{71} - U_{72}	42.76	120.09	2.71	3.25	-4.82	-0.17	24.35	29.21	-43.39	-1.50
	U_{72} - U_{73}	93.73	43.54	2.71	2.71	-4.82	-0.17	24.35	14.46	-43.47	-5.23
	U_{73} - U_{74}	-47.40	525.96	0.71	7.10	-7.95	14.55	-47.85	822.14	-216.64	967.46
	U_{74} - U_{75}	474.61	-124.27	7.10	0.71	14.55	-7.95	957.27	-216.64	967.46	-47.85
	U_{75} - U_{76}	46.76	20.63	2.99	-0.63	0.00	0.00	26.90	-7.48	0.00	0.00
	U_{76} - U_{77}	64.51	-138.61	3.44	-4.23	0.00	0.00	41.72	-92.18	0.00	0.00
	U_{77} - U_{78}	27.83	-140.42	2.86	-1.26	-3.51	-6.64	25.78	113.36	-11.95	-77.79
	U_{78} - U_{79}	-106.18	-154.99	2.07	0.67	-3.03	-4.20	18.67	6.03	-27.25	-37.76
	U_{79} - U_{80}	-137.97	-302.06	1.36	1.36	-2.52	-2.52	12.11	-47.76	-22.72	-22.72
	U_{80} - U_{81}	-245.66	-182.98	1.35	1.02	-26.24	-6.95	12.11	9.22	-227.18	-62.56
	U_{81} - U_{82}	-123.52	-326.70	1.72	0.19	-5.52	-2.78	15.45	73.71	-49.68	-25.06
	U_{82} - U_{83}	-269.82	-144.58	0.59	0.05	-14.64	-4.29	5.28	0.43	-131.74	-38.50
	U_{83} - U_{84}	-144.10	-67.23	0.66	-0.32	-7.25	1.95	5.94	-6.23	-13.97	0.00
	U_{84} - U_{85}	-70.88	-181.00	0.06	0.99	-0.51	-6.52	0.50	8.88	-4.57	-58.72
	U_{85} - U_{86}	-5.89	-252.22	0.00	1.40	-0.05	-8.73	0.00	12.31	-0.43	-77.03
	U_{86} - U_{87}	-327.18	-325.33	1.48	3.02	-8.66	-12.42	13.35	29.92	-77.02	-111.76
	U_{87} - U_{88}	-338.53	-241.91	2.89	3.98	-12.89	-9.89	26.59	36.58	-152.89	-90.77
	U_{88} - U_{89}	-396.09	-197.74	3.27	6.52	-13.60	-5.43	29.44	58.71	-122.43	-48.91
	U_{89} - U_{90}	-344.15	-179.39	5.02	4.37	-9.12	-25.77	45.16	39.34	-82.04	-231.97
	U_{90} - U_{91}	-226.10	295.71	3.65	4.60	-20.98	-5.48	32.82	44.58	-248.32	-49.33
	U_{91} - U_{92}	-350.17	-90.75	4.25	5.62	-8.10	-3.19	38.25	50.62	-72.87	-28.71
	U_{92} - U_{93}	-227.32	51.03	5.08	5.76	-2.07	-2.90	45.74	51.84	-18.63	-26.12
	U_{93} - U_{94}	-167.07	39.82	5.51	5.42	-8.69	-2.03	49.58	48.76	-81.41	-18.23
	U_{94} - U_{95}	-44.78	39.43	4.38	4.32	-6.99	-1.89	44.09	38.43	-128.87	-62.87
	U_{95} - U_{96}	-8.73	29.50	3.79	3.79	-5.61	-4.52	42.71	34.10	-56.87	-23.65
	U_{96} - U_{97}	-261.00	1065.93	2.53	10.74	-16.35	40.66	22.73	96.63	-147.17	365.91
	U_{97} - U_{98}	-1192.75	-64.49	10.74	0.00	40.66	0.00	363.72	0.00	365.91	0.00
	U_{98} - U_{99}	-25.30	11.62	1.59	4.86	-2.58	-5.86	14.27	43.73	-23.22	-52.70
	U_{99} - U_{100}	-50.58	33.05	3.09	8.84	-5.49	-5.75	28.01	79.58	-44.42	-51.77
	U_{100} - U_{101}	-150.58	33.05	5.09	8.84	-5.49	-5.75	45.79	-79.58	-4.42	-51.77
	U_{101} - U_{102}	-147.30	4.36	3.82	4.76	-2.01	-4.02	34.35	42.97	-18.05	-36.18
	U_{102} - U_{103}	-37.67	-34.01	3.88	4.07	-5.44	-5.60	34.92	36.68	-48.97	-50.38
	U_{103} - U_{104}	-86.04	-71.79	3.88	3.88	-5.44	-5.60	34.92	34.92	-48.97	-50.38
	U_{104} - U_{105}	-60.95	-86.97	3.83	3.88	-23.80	-7.59	34.46	34.90	-214.18	-68.31
	U_{105} - U_{106}	-25.01	-41.17	3.83	3.83	-23.80	-4.15	34.46	34.46	-214.18	-68.31
	U_{106} - U_{107}	-32.99	-28.60	4.02	4.10	-12.20	-3.62	36.20	36.88	-109.81	-32.54
	U_{107} - U_{108}	-15.12	-113.76	4.58	3.57	-8.50	1.83	41.08	32.12	-76.54	16.43
	U_{108} - U_{109}	-38.58	-38.58	3.57	3.57	-8.50	-8.50	32.12	32.12	-76.54	-76.54
	U_{109} - U_{110}	-2.69	-209.81	3.41	2.16	-7.76	4.60	30.68	19.45	-69.80	41.41
	U_{110} - U_{111}	-67.61	-67.61	2.16	2.16	-7.76	-7.76	29.43	19.45	-69.80	-69.80
	U_{111} - U_{112}	-122.28	-116.56	1.60	10.20	-9.01	41.55	14.27	-90.00	0.00	0.00
	U_{112} - U_{113}	-1153.78	-196.80	41.09	-11.70	0.00	0.00	369.83	-105.32	0.00	0.00
	U_{113} - U_{114}	-67.61	-67.61	2.16	2.16	-7.76	-7.76	21.77	-90.00	0.00	0.00
	U_{114} - U_{115}	-178.87	-59.61	7.12	-10.00	0.00	0.00	64.07	-90.00	0.00	0.00
	U_{115} - U_{116}	-68.77	-178.57	5.94	4.89	-4.51	-14.92	53.42	43.92	-40.55	-134.26
	U_{116} - U_{117}	-68.77	-68.77	4.89	4.89	-4.51	-4.51	43.92	43.92	-40.55	-40.55
	U_{117} - U_{118}	-236.40	-153.06	4.56	3.59	-8.92	-27.47	41.00	32.31	-80.24	-247.20
	U_{118} - U_{119}	-98.63	-313.14	4.78	4.50	-27.26	-9.46	43.00	40.46	-245.37	-85.16
	U_{119} - U_{120}	-339.47	-392.96	5.36	5.36	-46.60	-46.60	48.24	48.24	-419.34	-419.34
	U_{120} - U_{121}	-350.27	-386.72	3.52	3.96	-28.56	-7.19	31.66	8.60	-257.03	-64.67
	U_{121} - U_{122}	-278.82	-117.63	3.26	-0.63	-13.02	0.36	21.20	-5.64	-117.18	3.29
	U_{122} - U_{123}	-292.26	-37.53	1.47	-1.47	-7.49	2.80	21.20	-11.14	-69.22	25.20
	U_{123} - U_{124}	-186.18	-74.10	1.82	1.17	-9.44	3.13	16.20	-10.36	-84.98	-28.21
	U_{124} - U_{125}	-139.59	-187.78	2.39	-5.70	-1.13	5.75	21.51	-51.29	-10.13	-61.71
	U_{125} - U_{126}	-47.42	-119.54	0.62	-4.79	-0.38	1.78	7.38	-32.06	-1.69	-29.73
	U_{126} - U_{127}	-52.50	-128.95	1.27	-7.04	-5.32	0.61	11.43	-33.23	-2.91	-5.45
	U_{127} - U_{128}	-277.57	-111.26	1.27	-1.27	-11.26	2.83	5.90	-16.01	-65.54	-35.36
	U_{128} - U_{129}	-277.57	-111.69	5.66	1.78	-7.28	-3.93	5.90	16.01	-65.54	-35.36
	U_{129} - U_{130}	-166.87	-240.33	1.30	1.62	-6.68	-17.88	10.79	14.56	-41.91	-160.94
	U_{130} - U_{131}	-287.50	-127.71	1.64	-1.64	-26.09	-4.96	15.12	-22.24	-233.99	-44.60
	U_{131} - U_{132}	-141.30	-113.93	1.01	1.94	-5.22	-4.40	9.05	17.42	-46.94	-38.62
	U_{132} - U_{133}	-145.41	-22.73	1.54	2.46	-11.54	-0.55	13.87	22.16	-103.90	-4.92
	U_{133} - U_{134}	-141.54	58.98	1.80	2.12	-8.75	2.18	16.20	20.94	-78.72	19.58
Structure 2	U_{134} - U_{135}	-112.19	86.51	1.37	3.60	-5.07	-4.19	12.21	32.40	-45.62	-37.69
	U_{135} - U_{136}	-15.68	66.14	2.31	3.37	-4.43	-3.58	20.75	30.26	-43.45	-122.24
	U_{136} - U_{137}	-9.16	61.58	2.36	3.36	-15.49	-2.91	21.20	30.24	-139.39	-26.19
	U_{137} - U_{138}	42.76	120.09	2.71	3.25	-4.82	-0.17	24.35	29.21	-43.39	-1.50
	U_{138} - U_{139}	93.73	43.54	2.71	2.71	-4.82	-0.17	24.35	14.46	-43.47	-5.23
	U_{139} - U_{140}	-47.40	525.96	0.71	7.10	-7.95	14.55	-47.85	822.14	-216.64	967.46
	U_{140} - U_{141}	474.61	-124.27	7.10	0.71	14.55	-7.95	957.27	-216.64	967.46	-47.85
	U_{141} - U_{142}	46.76	20.63	2.99	-0.63	0.00	0.00	26.90	-7.48	0.00	0.00
	U_{142} - U_{143}	64.51	-138.61	3.44	-4.23	0.00	0.00	41.72	-92.18	0.00	0.00
	U_{143} - U_{144}	27.83	-140.42	2.86	-1.26	-3.51	-6.64	25.78	113.36	-11.95	-77.79
	U_{144} - U_{145}	-106.18	-154.99	2.07	0.67	-3.03	-4.20	18.67	6.03	-27.25	-37.76
	U_{145} - U_{146}	-137.97	-302.06	1.36	1.36	-2.52	-2.52	12.11	-47.76	-22.72	-22.72
	U_{146} - U_{147}	-245.66	-182.98	1.35	1.02	-26.24	-6.95	12.11	9.22	-227.18	-62.56
	U_{147} - U_{148}	-123.52	-326.70	1.72	0.19	-5.52	-2.78	15.45	73.71	-49.68	-25.06
	U_{148} - U_{149}	-269.82	-144.58	0.59	0.05	-14.64	-4.29	5.28	0.43	-131.74	-38.50
	U_{149} - U_{150}	-144.10	-67.23	0.66	-0.32	-7.25	1.95	5.94	-6.23	-13.97	0.00
	U_{150} - U_{151}	-70.88	-181.00	0.06	0.99	-0.51	-6.52	0.50	8.88	-4.57	-58.72
	U_{151} - U_{152}	-5.89	-252.22	0.00	1.40	-0.05	-8.73	0.00	12.31	-0.43	-77.03
	U_{152} - U_{153}	-327.18	-325.33	1.48	3.02	-8.66	-12.42	13.35	29.92	-77.02	-111.76
	U_{153} - U_{154}	-338.53	-241.91	2.89	3.98	-12.89	-9.89	26.59	36.58	-152.89	-90.77
	U_{154} - U_{155}	-396.09	-197.74	3.27	6.52	-13.60	-5.43	29.44	58.71	-122.43	-48.91
	U_{155} - U_{156}	-344.15	-179.39	5.02	4.37	-9.12	-25.77	45.16	39.34	-82.04	-231.97
	U_{156} - U_{157}	-226.10	295.71	3.65	4.60	-20.98	-5.48	32.82	44.58	-248.32	-49.33
	U_{157} - U_{158}	-350.17	-90.75	4.25	5.62	-8.10	-3.19	38.25	50.62	-72.87	-28.71
	U_{158} - U_{159}	-227.32	51.03	5.08	5.76	-2.07	-2.90	45.74	51.84	-18.63	-26.12
	U_{159} - U_{160}	-167.07	39.82	5.51	5.42	-8.69	-2.03	49.58	48.76	-81.41	-18.23
	U_{160} - U_{161}	-44.78	39.43	4.38	4.32	-6.99	-1.89	44.09	38.43	-128.87	-62.87
	U_{161} - U_{162}	-8.73	29.50	3.79	3.79	-5.61	-4.52	42.71	34.10	-56.87	-23.65
	U_{162} - U_{163}	-261.00	1065.93	2.53	10.74	-16.35	40.66	22.73	96.63	-147.17	365.91
	U_{163} - U_{164}	-1192.75	-64.49	10.74	0.00	40.66	0.00	363.72	0.00	365.91	0.00
	U_{164} - U_{165}	-25.30	11.62	1.59	4.86	-2.58	-5.86	14.27	43.73	-23.22	-52.70
	U_{165} - U_{166}	-50.58	33.05	3.09	8.84	-5.49	-5.75	28.01	79.58	-44.42	-51.77
	U_{166} - U_{167}	-150.58	33.05	5.09	8.84	-5.49	-5.75	45.79	-79.58	-4.42	-51.77
	U_{167} - U_{168}	-147.30	4.36	3.82	4.76	-2.01	-4.02	34.35	42.97	-18.05	-36.18
	U_{168} - U_{169}	-37.67	-34.01	3.88	4.07	-5.44	-5.60	34.92	36.68	-48.97	-50.38
	U_{169} - U_{170}	-86.04	-71.79	3.88	3.88	-5.44	-5.60	34.92	34.92	-48.97	-50.38
	U_{170} - U_{171}	-60.95	-86.97	3.83	3.88	-23.80	-7.59	34.46	34.90	-214.18	-68.31
	U_{171} - U_{172}	-25.01	-41.17	3.83	3.83	-23.80	-4.15	34.46	34.46	-214.18	-68.31
	U_{172} - U_{173}	-32.99	-28.60	4.02	4.10	-12.20	-3.62	36.20	36.88	-109.81	-32.54
	U_{173} - U_{174}	-15.12	-113.76	4.58	3.57	-8.50	1.83	41.08	32.12	-76.54	16.43
	U_{174} - U_{175}	-38.58	-38.58	3.57	3.57	-8.50	-8.50	32.12	32.12	-76.54	-76.54
	U_{175} - U_{176}	-2.69	-209.81	3.41	2.16	-7.76	4.60	30.68	19.45	-69.80	41.41
	U_{176} - U_{177}	-67.61	-67.61	2.16	2.16	-7.76	-7.76	29.43	19.45	-69.80	-69.80
	U_{177} - U_{178}	-122.28	-116.56	1.60	10.20	-9.01	41.55	14.27	-90.00	0.00	0.00
	U_{178} - U_{179}	-1153.78	-196.80	41.09	-11.70	0.00	0.00	369.83	-105.32	0.00	0.00
	U_{179} - U_{180}	-67.61	-67.61	2.16	2.16	-7.76	-7.76	21.77	-90.00	0.00	0.00
	U_{180} - U_{181}	-178.87	-59.61	7.12	-10.00	0.00	0.00	64.07	-90.00	0.00	0.00
	U_{181} - U_{182}	-68.77	-178.57	5.94	4.89	-4.51	-14.92	53.42	43.92	-40.55	-134.26
	U_{182} - U_{183}	-68.77	-68.77	4.89	4.89	-4.51	-4.51	43.92	43.92	-40.55	-40.55
	U_{183} - U_{184}	-236.40	-153.06	4.56	3.59	-8.92	-27.47	41.00	32.31	-80.24	-247.20
	U_{184} - U_{185}	-98.63	-313.14	4.78	4.50	-27.26	-9.46	43.00	40.46	-245.37	-85.16
	U_{185} - U_{186}	-339.47	-392.96	5.36	5.36	-46.60	-46.60	48.24	48.24	-419.34	-419.34
	U_{186} - U_{187}	-350.27	-386.72	3.52	3.96	-28.56	-7.19	31.66	8.60	-257.03	-64.67
	U_{187} - U_{188}	-278.82	-117.63	3.26	-0.63	-13.02	0.36	21.20	-5.64	-117.18	3.29
	U_{188} - U_{189}	-292.26	-37.53	1.47	-1.47	-7.49	2.80	21.20	-11.

Moment (Start) - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
Governing Specification for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Min) End (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	L_0-L_1	-15.54	-19.33	2.73	-3.45	-0.90	0.98	24.57	-31.09	-6.11	8.78
	L_1-L_2	39.76	-87.96	0.00	0.00	-1.16	-4.07	0.00	0.00	-10.41	-36.66
	L_2-L_3	56.39	-42.20	13.30	-5.42	-5.29	1.22	12.28	-21.58	-47.84	-47.63
	L_3-L_4	-11.34	11.55	1.29	3.99	-4.33	-8.55	11.28	35.87	-38.94	-76.99
	L_4-L_5	-49.11	208.03	3.01	0.00	-17.22	-23.79	27.12	0.00	-97.00	-117.22
	L_5-L_6	-0.48	181.07	2.31	5.30	-4.61	-9.61	20.83	47.66	-40.56	-5.49
	L_6-L_7	41.44	78.72	2.69	-1.92	-6.07	2.36	24.20	12.17	-54.22	21.20
	L_7-L_8	-25.11	448.74	0.00	0.00	-1.40	-18.68	0.00	0.00	-12.36	168.12
	L_8-L_9	425.89	-36.02	17.10	-1.28	0.00	0.00	153.94	-11.53	0.00	0.00
	L_9-L_{10}	150.02	-126.53	2.89	-3.06	-2.12	1.88	25.42	-224.09	153.67	-127.90
	L_{10}-L_{11}	120.44	-115.99	6.04	-2.89	0.00	0.00	54.36	-26.02	0.00	0.00
	L_{11}-L_{12}	139.58	-138.13	1.60	-4.30	0.00	0.00	32.40	-39.31	0.00	0.00
	L_{12}-L_{13}	-45.24	-121.26	1.99	0.82	-2.78	-3.63	17.92	8.32	-25.06	-32.64
	L_{13}-L_{14}	96.32	-264.98	3.20	-16.53	-0.01	-13.53	28.82	-148.78	-4.62	-121.78
	L_{14}-L_{15}	56.52	-64.08	3.14	-3.14	-0.01	-3.58	16.92	-36.00	-4.62	-29.24
	L_{15}-L_{16}	-191.89	-319.35	0.71	0.26	-7.75	-8.23	0.00	0.00	-239.63	-408.14
	L_{16}-L_{17}	339.58	44.88	3.57	-2.29	-8.95	0.18	5.09	2.60	-80.01	11.21
	L_{17}-L_{18}	-154.59	-31.26	3.01	-0.21	-4.45	1.63	2.81	-1.93	-40.03	14.64
	L_{18}-L_{19}	-215.80	145.76	2.45	-2.02	-5.44	2.17	4.01	-2.39	-54.83	19.49
	L_{19}-L_{20}	-136.32	-69.67	0.34	-0.19	0.86	3.55	3.09	-1.69	-52.70	31.99
	L_{20}-L_{21}	-2.68	-185.02	3.45	-8.29	-0.76	1.58	31.05	-74.60	-6.88	14.21
	L_{21}-L_{22}	13.76	-249.23	1.97	-11.75	-0.01	2.05	17.70	-81.12	-7.35	18.43
	L_{22}-L_{23}	-4.23	-180.72	1.71	-6.53	-1.26	-4.66	15.35	-58.82	-10.31	-41.97
	L_{23}-L_{24}	-5.47	-158.13	1.60	-5.63	-1.26	-4.66	13.73	-51.63	-10.31	-41.97
	L_{24}-L_{25}	-252.89	-295.03	1.50	2.75	-8.73	-11.10	13.51	24.71	-78.61	-99.86
	L_{25}-L_{26}	-4.23	-180.72	1.71	-6.53	-1.26	-4.66	15.35	-58.82	-10.31	-41.97
	L_{26}-L_{27}	-475.08	-292.18	4.28	-4.38	-14.52	-17.56	38.52	39.46	-160.38	-170.97
	L_{27}-L_{28}	-280.47	-64.51	3.56	6.30	-18.30	-5.86	32.08	56.66	-164.69	-52.77
	L_{28}-L_{29}	-292.36	219.74	4.49	-4.95	-14.52	-17.56	40.27	32.56	-85.42	-43.98
	L_{29}-L_{30}	-225.83	141.30	3.14	0.00	-12.16	0.24	28.24	53.99	-109.48	2.19
	L_{30}-L_{31}	-201.53	-259.01	4.99	0.00	-4.81	1.75	44.87	0.00	-36.75	15.67
	L_{31}-L_{32}	-160.03	387.16	3.22	7.26	-8.33	13.68	28.99	65.36	-74.98	123.10
	L_{32}-L_{33}	-202.71	-204.45	4.61	-5.39	-7.26	-1.11	41.53	-48.49	-36.39	-3.98
	L_{33}-L_{34}	-1.75	36.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{34}-L_{35}	1072.48	-412.35	37.66	-14.67	0.00	0.00	338.90	-132.01	0.00	0.00
	L_{35}-L_{36}	331.46	-87.41	13.33	-3.68	0.00	0.00	113.11	-30.16	0.00	0.00
	L_{36}-L_{37}	475.57	-49.03	15.18	-4.07	0.00	0.00	136.64	-36.59	0.00	0.00
	L_{37}-L_{38}	270.72	-3.56	8.88	-0.87	0.00	0.00	76.56	-1.00	0.00	0.00
	L_{38}-L_{39}	226.51	-41.81	4.76	-3.31	-1.41	-4.41	42.82	-29.82	-12.69	-39.65
	L_{39}-L_{40}	214.45	-56.43	2.72	-4.35	-1.95	-4.96	24.50	-39.16	-17.59	-44.60
	L_{40}-L_{41}	40.78	-86.27	0.36	-6.38	-0.44	-1.36	6.38	-62.36	-4.00	-18.84
	L_{41}-L_{42}	49.27	-202.49	3.15	4.80	-5.66	-7.21	28.35	43.24	-50.95	-64.89
	L_{42}-L_{43}	-197.19	-24.39	3.15	-0.21	-4.45	1.63	2.81	-1.93	-40.03	14.64
	L_{43}-L_{44}	-111.92	0.86	3.43	4.41	-8.08	-5.88	30.85	39.71	-81.68	-52.92
	L_{44}-L_{45}	-1.75	36.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{45}-L_{46}	-60.79	179.81	3.18	6.49	-8.58	2.12	28.66	40.37	-89.21	59.04
	L_{46}-L_{47}	-81.80	265.56	4.61	9.91	-8.29	6.99	41.47	8.19	-73.82	62.92
	L_{47}-L_{48}	-99.81	279.28	2.64	7.66	-4.52	-10.35	23.79	-68.91	-40.68	33.11
	L_{48}-L_{49}	1026.29	362.30	38.72	-14.81	0.00	0.00	348.45	-133.30	0.00	0.00
	L_{49}-L_{50}	-226.76	-125.36	0.00	0.00	-10.80	-2.16	0.00	0.00	-97.22	-19.45
	L_{50}-L_{51}	278.05	-132.91	2.95	4.92	0.00	0.00	26.58	-44.32	0.00	0.00
	L_{51}-L_{52}	222.98	-243.21	3.99	4.07	-2.52	-8.75	35.50	36.60	-22.70	-78.74
	L_{52}-L_{53}	221.96	-104.42	3.21	4.33	-3.52	-8.75	35.50	36.60	-31.73	-78.74
	L_{53}-L_{54}	278.05	-132.91	2.95	4.92	0.00	0.00	26.58	44.32	0.00	0.00
	L_{54}-L_{55}	-167.98	-470.72	4.66	3.35	-19.35	-17.21	41.97	30.18	-174.11	-100.93
	L_{55}-L_{56}	-445.06	-93.48	3.87	5.91	-14.89	-14.93	34.67	8.23	-133.96	-134.39
	L_{56}-L_{57}	-291.70	-319.50	4.71	0.00	-17.19	-19.47	41.97	0.00	-174.11	-100.93
	L_{57}-L_{58}	-392.27	38.30	1.87	-0.52	-7.90	-1.51	16.81	-4.68	-71.14	-13.55
	L_{58}-L_{59}	-297.04	199.10	1.47	-0.61	-7.01	1.58	13.23	-5.52	-63.08	14.19
Structure 3	L_{59}-L_{60}	24.53	-109.42	3.53	-5.63	-0.32	0.50	19.09	-70.86	-2.91	4.49
	L_{60}-L_{61}	-139.90	-177.77	2.23	-6.10	-0.32	0.71	20.07	-34.91	-2.90	6.35
	L_{61}-L_{62}	-115.57	-138.73	1.80	-4.76	-0.32	0.71	20.07	-34.91	-2.90	6.35
	L_{62}-L_{63}	47.96	-293.64	0.00	0.00	-5.74	-7.10	0.00	0.00	-6.64	-64.46
	L_{63}-L_{64}	58.52	-293.64	0.00	0.00	-5.74	-7.10	0.00	0.00	-6.64	-64.46
	L_{64}-L_{65}	-47.68	-343.07	0.26	1.80	-3.89	-15.66	2.31	16.16	-34.98	-145.91
	L_{65}-L_{66}	-341.10	86.20	1.98	-1.40	-17.16	1.56	12.43	-12.57	-159.81	14.02
	L_{66}-L_{67}	-201.09	-129.39	-54.79	1.87	-7.19	1.62	10.85	16.81	-64.72	14.61
	L_{67}-L_{68}	-148.24	148.96	2.12	-1.16	-3.95	3.03	19.05	-10.40	-35.57	27.25
	L_{68}-L_{69}	-428.31	-26.46	0.00	0.00	-16.36	0.00	0.00	0.00	-167.86	-12.28
	L_{69}-L_{70}	-70.66	-27.55	1.57	-3.50	-2.04	2.52	17.31	-37.48	-18.90	22.73
	L_{70}-L_{71}	-194.48	-25.11	5.86	-5.61	0.00	0.00	52.77	-86.50	0.00	0.00
	L_{71}-L_{72}	-45.48	-80.88	2.14	-6.76	-7.31	0.00	19.30	-6.64	-60.01	-65.76
	L_{72}-L_{73}	-74.64	-5.53	0.70	-0.68	-3.64	3.27	7.04	-6.08	-32.74	-29.39

ZZ Axis Moments from STAAD

Location	Member	Max. Pos. Mom. Start (k-ft)	Max. Pos. Mom. End (k-ft)	Max. Neg. Mom. Start (k-ft)	Max. Neg. Mom. End (k-ft)	S_{xx} (in^3)	S_{xx} (in^3)	Z_z (in^3)	I (in^4)	I_{xx} (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F$_y$/S_{xx}	M_n (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor C_{mx}	Equivalent Mom. Factor C_{mx}
Structure 1	L_0-L_1	33.03	-162.63	37.77	-76.32	83.6	83.58	74.65	100.97	2577	1.21	3332	0.99600094	2755.4	-0.203	0.52	0.52
	L_1-L_2	51.69	-114.26	29.13	-153.78	83.6	83.58	67.49	100.97	2577	1.21	3332	0.99600094	2755.4	-0.150	0.54	0.54
	L_2-L_3	0.00	-29.18	-158.58	-99.15	99.53	91.00	125.49	3409	1372.0	1.26	4141	0.99991188	3294.8	0.653	0.86	0.86
	L_3-L_4	9.70	92.75	-99.11	-151.78	99.9	99.93	84.14	129.49	3409	1372.0	1.26	4141	0.99991188	3294.8	0.653	0.86	0.86
	L_4-L_5	27.12	52.98	-51.22	-77.22	83.6	52.58	76.68	114.47	3186	1.37	3332	0.99910861	3052.4	-0.073	0.59	0.59
	L_5-L_6	20.83	47.66	-40.56	-5.49	44.53	338.65	48.48	223.92	1044.6	1.34	1678.1	1.31	4320	0.99524945	3448.5	0.131	0.65	0.65
	L_6-L_7	24.20	12.17	-54.22	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_7-L_8	0.00	0.00	-12.36	168.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_8-L_9	153.94	-11.53	0.00	0.00	83.6	83.58	74.65	100.97	2577	1.21	3332	0.99600094	2755.4	-0.203	0.52	0.52
	L_9-L_{10}	25.42	-224.09	153.67	-127.90	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{10}-L_{11}	54.36	-26.02	0.00	0.00	83.6	83.58	74.65	100.97	2577	1.21	3332	0.99600094	2755.4	-0.203	0.52	0.52
	L_{11}-L_{12}	32.40	-39.31	0.00	0.00	83.6	83.58	74.65	100.97	2577	1.21	3332	0.99600094	2755.4	-0.203	0.52	0.52
	L_{12}-L_{13}	17.92	8.32	-25.06	-32.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{13}-L_{14}	28.82	-148.78	-4.62	-121.78	99.53	91.00	125.49	3409	1372.0	1.26	4141	0.99991188	3294.8	0.653	0.86	0.86
	L_{14}-L_{15}	16.92	-36.00	-4.62	-29.24	83.6	83.58	74.65	100.97	2577	1.21	3332	0.99600094	2755.4	-0.203	0.52	0.52
	L_{15}-L_{16}	0.00	0.00	-239.63	-408.14	83.6	83.58	74.65	100.97	2577	1.21	3332	0.99600094	2755.4	-0.203	0.52	0.52
	L_{16}-L_{17}	5.09	2.60	-80.01	11.21	83.6	83.58	74.65	100.97	2577	1.21	3332	0.99600094	2755.4	-0.203	0.52	0.52
	L_{17}-L_{18}	2.81	-1.93	-40.03	14.64	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{18}-L_{19}	4.01	-2.39	-54.83	19.49	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{19}-L_{20}	3.09	-1.69	-52.70	31.99	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{20}-L_{21}	31.05	-74.60	-6.88	14.21	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{21}-L_{22}	17.70	-81.12	-7.35	18.43	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{22}-L_{23}	15.35	-58.82	-10.31	-41.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{23}-L_{24}	13.73	-51.63	-10.31	-41.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{24}-L_{25}	13.51	24.71	-78.61	-99.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{25}-L_{26}	15.35	-58.82	-10.31	-41.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{26}-L_{27}	38.52	39.46	-160.38	-170.97	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{27}-L_{28}	32.08	56.66	-164.69	-52.77	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{28}-L_{29}	40.27	32.56	-85.42	-43.98	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{29}-L_{30}	28.24	53.99	-109.48	2.19	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{30}-L_{31}	44.87	0.00	-36.75	15.67	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{31}-L_{32}	28.99	65.36	-74.98	123.10	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{32}-L_{33}	41.53	-48.49	-36.39	-3.98	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{33}-L_{34}	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{34}-L_{35}	338.90	-132.01	0.00	0.00	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{35}-L_{36}	113.11	-30.16	0.00	0.00	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{36}-L_{37}	136.64	-36.59	0.00	0.00	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{37}-L_{38}	76.56	-1.00	0.00	0.00	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{38}-L_{39}	42.82	-29.82	-12.69	-39.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{39}-L_{40}	24.50	-39.16	-17.59	-44.60	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{40}-L_{41}	6.38	-62.36	-4.00	-18.84	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{41}-L_{42}	28.35	43.24	-50.95	-64.89	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{42}-L_{43}	2.81	-1.93	-40.03	14.64	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{43}-L_{44}	30.85	39.71	-81.68	-52.92	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{44}-L_{45}	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{45}-L_{46}	28.66	40.37	-89.21	59.04	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{46}-L_{47}	41.47	8.19	-73.82	62.92	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{47}-L_{48}	23.79	-68.91	-40.68	33.11	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{48}-L_{49}	348.45	-133.30	0.00	0.00	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{49}-L_{50}	0.00	0.00	-97.22	-19.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{50}-L_{51}	26.58	-44.32	0.00	0.00	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{51}-L_{52}	35.50	36.60	-22.70	-78.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{52}-L_{53}	35.50	36.60	-31.73	-78.74	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{53}-L_{54}	26.58	44.32	0.00	0.00	144.9	144.85	129.09	192.84	5010	1.24	6364	0.99991188	4716.1	-0.851	1.26	1.26
	L_{54}-L_{55}	41.97	30.18	-174.11	-100.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{55}-L_{56}	34.67	8.23	-133.96	-134.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{56}-L_{57}	41.97	0.00	-174.11	-100.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{57}-L_{58}	16.81	-4.68	-71.14	-13.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{58}-L_{59}	11.69	-5.52	-63.08	14.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{59}-L_{60}	13.23	-5.52	-63.08	14.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{60}-L_{61}	19.09	-70.86	-2.91	4.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{61}-L_{62}	20.07	-34.91	-2.90	6.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{62}-L_{63}	0.00	-6.64	-64.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{63}-L_{64}	0.00	-6.64	-64.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{64}-L_{65}	2.31	16.16	-34.98	-145.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{65}-L_{66}	12.43	-12.57	-159.81	14.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{66}-L_{67}	10.85	16.81	-64.72	14.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{67}-L_{68}	19.05	-10.40	-35.57	27.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{68}-L_{69}	0.00	0.00	-167.86	-12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{69}-L_{70}	17.31	-37.48	-18.90	22.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{70}-L_{71}	52.77	-86.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{71}-L_{72}	19.30	-6.64	-60.01	-65.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{72}-L_{73}	7.04	-6.08	-32.74	-29.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

YY Axis Moments from STAAD

Location	Member	Max. Pos. Mom. Start (k-ft)	Max. Pos. Mom. End (k-ft)	Max. Neg. Mom. Start (k-ft)	Max. Neg. Mom. End (k-ft)	S_{yy} (in^3)	S_{yy} (in^3)	Z_y (in^3)	I_{yy} (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F$_y$/S_{yy}	M_n (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor C_{my}	Equivalent Mom. Factor C_{my}
Structure 1	L_0-L_1	-10.32	-37.94	1.27	4.65	0.00	0.00	0.00	0.00	1.10	4659	—	0.99600542	4225.3	0.272	0.71	0.71
	L_1-L_2	-10.32	-37.94	1.27	4.65	0.00	0.00	0.00	0.00	1.10	4659	—	0.99600542	4225.3	-0.681	0.33	0.33
	L_2-L_3	-2.12	-2.11	-6.83	3.06	0.00	0.00	0.00	0.00	1.10	4659	—	0.99600542

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.33	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1998

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information | M_3 Information

| Location | Member | ZZ Axis Moments from STAAD: Dead Load Start (k-ft) | Dead Load End (k-ft) | Live Load (Max) Start (k-ft) | Live Load (Max) End (k-ft) | Pedestrian Load (Max) Start (k-ft) | Pedestrian Load (Max) End (k-ft) | Lane Reduction & Impact Live Load Start (k-ft) | Lane Reduction & Impact Live Load End (k-ft) | Impact Pedestrian Load Max Start (k-ft) | Impact Pedestrian Load Max End (k-ft) | Max. Neg. Mom. Start (k-ft) | Max. Neg. Mom. End (k-ft) | S_{top} (in^3) | S_b (in^3) | Z_z (in^3) | I_z (in^4) | $I_{t/n}$ (in^4) | Shape Factor f | M_p (k-in) | Formula 1.8 Term * F_y/S_x | M_r (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor $C_{b(x)}$ | Equivalent Mom. Factor $C_{b(n)}$ | YY Axis Moments from STAAD: Dead Load Start (k-ft) | Dead Load End (k-ft) | Live Load (Max) Start (k-ft) | Live Load (Max) End (k-ft) | Pedestrian Load (Max) Start (k-ft) | Pedestrian Load (Max) End (k-ft) | Lane Reduction & Impact Live Load Start (k-ft) | Lane Reduction & Impact Live Load End (k-ft) | Impact Pedestrian Load Max Start (k-ft) | Impact Pedestrian Load Max End (k-ft) | Max. Neg. Mom. Start (k-ft) | Max. Neg. Mom. End (k-ft) | S_{top} (in^3) | S_b (in^3) | Z_y (in^3) | $I_{t/n}$ (in^4) | Shape Factor f | M_p (k-in) | σ_{cr} (ksi) | Formula 1.8 Term * F_y/S_x | M_r (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor $C_{b(x)}$ | Equivalent Mom. Factor $C_{b(n)}$ | Tension: Yield Axial Factor | Yield Moment Portion | Yield Total | Pass | Fracture Axial Factor | Fracture Moment Portion | Fracture Total | Pass | Compression: Buckle Axial Factor | Buckle Moment Portion | Buckle Total | Pass | Yield Axial Factor | Yield Moment Portion | Yield Total | Pass |
|---|---|---|---

Moment (Start) - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: **HS20 Lane**
Condition: **As-Built**

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information | **M_y Information**

Location	Member	ZZ Axis Moments from STAAD: Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Max Start (k-in)	Lane Reduction & Impact Live Load Max End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)	Max. Pos. Mom. Start (k-in)	Max. Pos. Mom. End (k-in)	S_{bb} (in^3)	S_{tt} (in^3)	Z_z (in^3)	I_z (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F_y/S_x	M_z (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor C_{mx}	YY Axis Moments from STAAD: Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Max Start (k-in)	Lane Reduction & Impact Live Load Max End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)	Max. Neg. Mom. Start (k-in)	Max. Neg. Mom. End (k-in)	S_{bb} (in^3)	S_{tt} (in^3)	Z_y (in^3)	I_{yy} (in^4)	Shape Factor	M_p (k-in)	P_{crit} (k)	Formula 1.8 Term * F_y/S_x	M_{cy} (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor C_{mx}	Axial Tension Stress (ksi)	Moment Tension Stress (ksi)	Pass	Axial Compression Stress (ksi)	Moment Compression Stress (ksi)	Pass	Axial Buckle Portion	Moment Buckle Portion	Total	Pass	Axial Yield Portion	Moment Yield Portion	Total	Pass
Structure 1	U_0-L_1	-12.55	3.37	0.39	-0.24	-1.07	0.66					0.00	0.00	0.00	0.00									2.73	2.19	-33.45	-16.61	0.00	0.00	0.00	0.00	-82.71	-20.40	-141.10	-61.14	100.5	100.60	100.48	126.29	66.1	1.20	3970	144	0.94257776	3126.1	0.433	0.77	0.77	0.229	0.079	0.31	Yes	0.138	0.043	0.19	Yes								
	L_1-U_1	-1.68	-7.06	0.33	-0.14	-0.98	0.35					2.93	-1.30	-80.84	-17.58	-21.37	-2.35	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	0.110	0.64	0.64	-31.49	-29.98	-0.48	0.03	-2.81	-1.855			4.36	0.30	-25.25	-16.61	0.00	0.00	0.00	0.00	-50.37	-38.33	-95.63	-74.95	94.0	93.99	93.99	104.66	65.3	1.11	3454	166	0.95237572	2947.1	0.784	0.91	0.91	0.357	0.155	0.51	Yes	0.094	0.039	0.13	Yes	0.041	0.048	0.09	Yes	0.036	0.027	0.07	Yes
	U_1-L_2	9.78	-11.75	0.37	0.04	-0.88	-0.93					3.31	0.36	-7.92	-8.35	0.00	0.00	0.00	0.00	19.88	-14.49	-4.45	-33.37	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	0.123	0.65	0.65	-89.70	-37.34	1.91	2.72	-3.08	-3.01			14.21	13.11	-22.27	-27.86	0.00	0.00	0.00	0.00	-29.99	-54.78	-108.39	-143.80	94.0	93.99	93.99	104.66	65.3	1.11	3454	160	0.94257977	2947.3	0.784	0.91	0.91	0.213	0.083	0.28	Yes	0.056	0.021	0.07	Yes	0.021	0.021	0.04	Yes
	L_2-U_2	-10.32	17.09	0.13	0.62	-1.05	0.97					-12.62	3.16	-13.91	-3.34	0.00	0.00	0.00	0.00	-10.62	34.06	-10.37	-26.23	15.4	15.42	15.42	23.71	2	907.0	1.54	982	1.5	958.8	0.203	0.46	0.46	85.30	15.26	3.24	3.24	-3.83	-3.85			29.19	30.18	-30.12	-43.23	0.00	0.00	0.00	0.00	-62.61	-68.38	-113.4	-113.37	113.37	130.15	82.8	1.15	3454	137	0.95137346	3598.3	0.497	0.80	0.80	0.413	0.085	0.50	Yes	0.227	0.047	0.28	Yes								
	U_2-L_3	-26.82	58.45	0.24	1.08	-2.29	1.58					2.10	9.75	-20.61	14.19	0.00	0.00	0.00	0.00	-20.21	97.13	-79.52	106.74	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5	1737.0	-0.745	0.30	0.30	145.32	73.85	4.03	4.03	3.84	-18.31	-27.76	-20.54	113.4	113.37	113.37	130.15	82.8	1.15	3519	262	0.95648452	4728.8	0.639	0.86	0.86	0.328	0.109	0.44	Yes	0.180	0.060	0.25	Yes								
	L_3-U_3	-26.36	58.00	0.52	1.12	-1.52	3.27					4.71	10.04	-13.70	29.46	0.00	0.00	0.00	0.00	-1.93	137.24	-37.95	179.31	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5	1737.0	-0.212	0.52	0.52	187.01	134.53	5.00	1.57	-2.90	-0.40			45.00	14.09	-28.08	-3.58	0.00	0.00	0.00	0.00	-340.61	-205.43	-186.65	-167.13	148.0	147.96	147.96	167.25	201.8	1.13	5519	205	0.95995474	4689.9	0.603	0.84	0.84	0.401	0.164	0.57	Yes	0.220	0.090	0.32	Yes								
	U_3-L_4	-9.60	109.51	1.18	1.10	-0.88	2.54					10.58	9.93	-7.92	26.42	0.00	0.00	0.00	0.00	10.46	163.87	-29.63	199.61	40.7	40.70	40.44	67.92	25	1661.0	1.67	2241	1.5	2214.7	-0.148	0.54	0.54	109.62	103.78	6.56	2.46	1.36	2.95			59.08	22.18	11.66	26.57	0.00	0.00	0.00	0.00	270.50	182.96	167.78	192.48	202.9	202.86	192.44	238.56	256.9	1.18	7872	228	0.96384651	6452.3	0.676	0.87	0.87	0.379	0.123	0.51	Yes	0.235	0.069	0.31	Yes								
	L_4-U_4	-74.77	141.56	2.29	0.35	-3.46	2.37					2.31	4.11	-23.09	18.62	0.00	0.00	0.00	0.00	-82.19	53.60	-147.23	125.03	40.7	40.70	40.44	67.92	25	1661.0	1.67	2241	1.5	2214.7	-0.549	0.26	0.26	68.64	79.65	0.24	0.40	0.91	2.47			2.39	3.56	8.23	-22.20	0.00	0.00	0.00	0.00	94.39	111.27	107.06	151.00	202.9	202.86	192.44	238.56	256.9	1.18	7872	281	0.97081457	6457.7	0.706	0.88	0.88	0.302	0.085	0.48	Yes	0.183	0.048	0.23	Yes								
	U_4-L_5	-56.82	54.75	0.37	0.72	-1.58	1.17					3.37	6.45	-17.84	10.53	0.00	0.00	0.00	0.00	-66.58	85.15	-112.52	93.99	39.8	39.77	39.56	65.61	21	1610.3	1.65	2165	1.5	1968.6	-0.835	0.27	0.27	-40.82	-53.16	0.84	0.97	-0.16	0.56			-36.63	-50.27	-56.23	-58.11	197.4	197.41	184.99	230.30	248.6	1.17	7600	209	0.96813336	6309.9	0.968	0.99	0.99	0.373	0.060	0.44	Yes	0.231	0.033	0.27	Yes								
	L_5-U_5	-56.52	52.22	0.23	0.70	-1.57	1.26					2.10	5.71	-21.87	9.55	0.00	0.00	0.00	0.00	-65.13	81.56	-106.06	89.75	39.8	39.77	39.56	65.61	21	1610.3	1.65	2165	1.5	1968.6	-0.829	0.27	0.27	-40.46	-52.64	0.46	0.96	-0.13	1.13			-26.45	-35.18	-22.88	-27.69	0.00	0.00	0.00	0.00	-170.13	-141.04	-204.09	-223.52	197.4	197.41	184.99	230.30	248.6	1.17	6690	277	0.91252526	5561.8	0.914	0.97	0.97	0.402	0.095	0.50	Yes	0.223	0.052	0.28	Yes								
	L_0-U_1	-55.23	39.04	0.00	0.00	-2.16	2.10					0.00	0.00	-19.47	18.86	0.00	0.00	0.00	0.00	-71.78	50.75	-113.96	91.60	20.8	20.80	20.67	34.66	1	1079.0	1.67	1444	1.5	1329.6	-0.804	0.28	0.28	-176.52	-100.33	0.00	0.00	0.00	0.00	-220.48	-196.42	-274.39	-242.77	133.5	133.45	128.07	155.40	168.8	1.18	5128	176	0.93035181	4196.9	0.885	0.95	0.95	0.422	0.183	0.58	Yes	0.287	0.086	0.37	Yes								
	U_1-L_0	-20.96	7.36	0.00	0.00	-1.52	0.30					0.00	0.00	-13.72	2.70	0.00	0.00	0.00	0.00	-27.25	9.57	-56.97	15.42	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.271	0.49	0.49	-161.17	-109.35	0.00	0.00	-1.95	-2.44			-359.52	-257.16	-247.49	-254.75	94.0	93.99	93.99	104.66	65.3	1.11	3454	145	0.94237155	2925.7	0.971	0.99	0.99	0.453	0.147	0.61	Yes	0.249	0.081	0.34	Yes								
	L_1-U_2	1.16	-3.26	0.00	0.00	-0.25	0.00					5.72	-2.72	-29.35	-21.62	0.00	0.00	0.00	0.00	-12.62	10.16	-33.23	-23.23	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.091	0.50	0.50	-67.68	-126.49	0.00	0.00	-3.83	-3.01			-64.60	-160.98	-245.02	-220.89	94.0	93.99	93.99	104.66	65.3	1.11	3454	123	0.93172127	2994.2	0.811	0.92	0.92	0.216	0.115	0.34	Yes	0.119	0.063	0.19	Yes								
	U_2-L_1	-19.01	4.12	0.24	-0.20	-1.34	1.06					2.20	-1.81	-12.07	9.57	0.00	0.00	0.00	0.00	-19.95	1.43	-50.86	26.08	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.513	0.39	0.39	-56.19	-89.50	0.39	0.42	-3.44	-2.88			3.47	-3.78	-30.92	-25.96	0.00	0.00	0.00	0.00	-65.52	-108.16	-140.03	-172.59	94.0	93.99	93.99	104.66	65.3	1.11	3454	123	0.93172127	2994.2	0.811	0.92	0.92	0.216	0.115	0.34	Yes	0.119	0.063	0.19	Yes								
	L_2-U_3	-49.28	58.13	0.34	-0.29	-3.26	2.80					3.04	-2.65	-30.25	25.16	0.00	0.00	0.00	0.00	-109.47	89.84	-181.60	130.09	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.716	0.31	0.31	15.94	-41.01	-0.25	0.15	-4.17	-2.57			1.63	3.52	-23.09	-21.65	0.00	0.00	0.00	0.00	-64.60	-160.98	-245.02	-220.89	94.0	93.99	93.99	104.66	65.3	1.11	3454	123	0.93172127	2994.2	0.811	0.92	0.92	0.216	0.115	0.34	Yes	0.119	0.063	0.19	Yes								
	U_3-L_2	-49.28	58.13	0.34	-0.29	-3.26	2.80					2.71	-2.26	-30.25	23.15	0.00	0.00	0.00	0.00	-115.31	75.26	-185.66	129.91	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.716	0.31	0.31	15.94	-41.01	-0.25	0.15	-4.17	-2.57			-3.65	-1.43	-34.42	-32.32	0.00	0.00	0.00	0.00	-22.72	-110.92	-145.39	-177.11	94.0	93.99	93.99	104.66	65.3	1.11	3454	123	0.93172127	2994.2	0.811	0.92	0.92	0.216	0.115	0.34	Yes	0.119	0.063	0.19	Yes								
	L_3-U_4	-19.01	4.12	0.24	-0.20	-1.34	1.06					2.20	-1.81	-12.07	9.57	0.00	0.00	0.00	0.00	-19.95	1.43	-50.86	26.08	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.513	0.39	0.39	-56.19	-89.50	0.39	0.42	-3.44	-2.88			3.47	-3.78	-30.92	-25.96	0.00	0.00	0.00	0.00	-65.52	-108.16	-140.03	-172.59	94.0	93.99	93.99	104.66	65.3	1.11	3454	123	0.93172127	2994.2	0.811	0.92	0.92	0.216	0.115	0.34	Yes	0.119	0.063	0.19	Yes								
	U_4-L_3	-49.28	58.13	0.34	-0.29	-3.26	2.80					3.04	-2.65	-30.25	25.16	0.00	0.00	0.00	0.00	-109.47	89.84	-181.60	130.09	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.716	0.31	0.31	15.94	-41.01	-0.25	0.15	-4.17	-2.57			-2.22	1.39	-37.52	-23.17	0.00	0.00	0.00	0.00	15.91	-50.30	-60.57	-103.50	148.0	147.96	147.96	167.25	201.8	1.13	5519	207	0.96021955	4688.3	0.585	0.83	0.83	0.378	0.122	0.50	Yes	0.208	0.067	0.28	Yes								
	L_4-U_5	-49.28	58.13	0.34	-0.29	-3.26	2.80					2.71	-2.26	-30.25	23.15	0.00	0.00	0.00	0.00	-115.31	75.26	-185.66	129.91	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.716	0.31	0.31	15.94	-41.01	-0.25	0.15	-4.17	-2.57			-3.65	-1.43	-34.42	-32.32	0.00	0.00	0.00	0.00	-22.72	-110.92	-145.39	-177.11	94.0	93.99	93.99	104.66	65.3	1.11	3454	123	0.93172127	2994.2	0.811	0.92	0.92	0.216	0.115	0.34	Yes	0.119	0.063	0.19	Yes								
	U_5-L_4	-105.04	88.84	0.17	-0.18	-3.39	2.94					2.94	-1.55	-30.51	26.44	0.00	0.00	0.00	0.00	-133.22	111.92	-202.66	172.78	38.8	38.83	38.83	59.23	3	1284.6	1.53	1955	1.5	1922.1	-0.803	0.26	0.26	-6.27	-62.27	0.13	-0.37	-6.73	-1.98			6.71	45.16	-139.19	13.67	160.8	160.87	160.57	180.57	184.25	223.9	115	6080	136	0.95172364	5072.2	0.535	0.81	0.81	0.408	0.127	0.54	Yes	0.229	0.070	0.30	Yes								
	L_5-U_6	-82.69	87.74	0.94	-0.89	-4.26	3.95					8.48	-7.97	-38.30	35.51	0.00	0.00	0.00	0.00	-89.12	96.81	-190.46	190.99	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.997	0.20	0.20	-102.89	25.57	0.12	0.43	-5.64	-2.95			1.06	3.86	-50.73	-26.57	0.00	0.00	0.00	0.00	-131.45	41.60	-243.68	-24.33	173.7	173.70	173.70	202.71	247.5	1.17	6690	180	0.95421621	5469.3	0.100	0.64	0.64	0.407	0.125	0.54	Yes	0.224	0.069	0.30	Yes								
	U_6-L_5	-82.69	87.87	0.71	-0.76	-4.26	3.95					8.53	-7.15	-33.60	28.59	0.00	0.00	0.00	0.00	-108.88	77.02	-209.15	164.73	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.997	0.20	0.20	-102.89	25.57	0.12	0.43	-5.64	-2.95			9.45	0.21	-62.56	-8.53	-3.81				-131.45	41.60	-243.68	-24.33	173.7	173.70	173.70	202.71	247.5	1.17	6690	180	0.95421621	5469.3	0.100	0.64	0.64	0.407	0.125	0.54	Yes	0.224	0.069	0.30	Yes								
	L_6-U_7	-81.28	63.04	1.04	-0.85	-3.56	2.67					8.39	-6.33	-32.01	24.05	0.00	0.00	0.00	0.00	-89.33	55.20	-173.03	134.05	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.766	0.29	0.29	-72.86	-125.81	0.50	-0.34	-5.76	-2.29			4.46	-3.05	-61.04	-2.37	0.00	0.00	0.00	0.00	-85.07	-170.17	-207.04	-169.12	148.0	147.96	147.96	167.25	201.8	1.13	5519	271	0.96189756	4686.6	0.451	0.79	0.79	0.384	0.137	0.53	Yes	0.211	0.075	0.29	Yes								
	U_7-L_6	-82.69	87.74	0.94	-0.89	-4.26	3.95					8.48	-7.97	-38.30	35.51	0.00	0.00	0.00	0.00	-89.12	96.81	-190.46	190.99	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.997	0.20	0.20	-102.89	25.57	0.12	0.43	-5.64	-2.95			1.06	3.86	-50.73	-26.57	0.00	0.00	0.00	0.00	-131.45	41.60	-243.68	-24.33	173.7	173.70	173.70	202.71	247.5	1.17	6690	180	0.95421621	5469.3	0.100	0.64	0.64	0.407	0.125	0.54	Yes	0.224	0.069	0.30	Yes								
	L_7-U_8	-17.30	7.21	0.55	-0.42	-1.38	0.99					4.91	-3.77	-12.41	8.87	0.00	0.00	0.00	0.00	-11.84	0.34	-49.38	28.32	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.573	0.37	0.37	-165.98	-124.47	0.08	0.16	-2.67	-2.97			-10.53	10.49	-23.92	-15.31	94.0	93.99	93.99	104.66	65.3	1.11	3454	96	0.91239827	2834.9	0.820	0.93	0.93	0.324	0.140	0.46	Yes	0.178	0.077	0.25	Yes								
	U_8-L_7	-17.30	7.21	0.55	-0.42	-1.38	0.99					4.91	-3.77	-12.41	8.87	0.00	0.00	0.00	0.00	-11.84	0.34	-49.38	28.32	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.573	0.37	0.37	-165.98	-124.47	0.08	0.16	-2.67	-2.97			-10.53	10.49	-23.92	-15.31	94.0	93.99	93.99	104.66	65.3	1.11	3454	96	0.91239827	2834.9	0.820	0.93	0.93	0.324	0.140	0.46	Yes	0.178	0.077	0.25	Yes								
	L_8-U_9	-7.42	-23.91	0.44	-0.27	-0.91	-0.11					3.97	-2.46	-9.22	-0.99	0.00	0.00	0.00	0.00	18.25	-36.41	-8.56	18.25	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.501	0.40	0.40	-164.77	-131.43	1.31	-1.80	-1.41	-7.68			11.79	16.22	-12.73	-69.10	0.00	0.00	0.00	0.00	-188.73	-135.72	-241.77	-320.58	103.1	103.08	103.08	116.41	73.3	1.13	3841	126	0.94257776	3126.1	0.433	0.77	0.77	0.229	0.079	0.31	Yes	0.138	0.043	0.19	Yes								
	U_9-L_8	-44.31	35.87	0.00	0.00	-2.13	0.82					0.00	0.00	-19.17	7.34	0.00	0.00	0.00	0.00	-57.60	46.63	-86.14	62.54	20.5	20.51	20.40	33.89	8	1017.2	1.65	1118	1.5	1016.2	-0.631	0.35	0.35	-19.68	-87.12	0.00	0.00	-3.47	-2.01			-25.59	-113.26	-63.25	-152.45	128.2	128.15	118.23	148.43	156.4	1.16	4898	160	0.94859354	4011.5	0.612	0.84	0.84	0.362	0.120	0.49	Yes	0.238	0.068	0.30	Yes								
	L_9-U_{10}	-66.38	68.64	0.12	0.30	-3.25	2.41					1.08	7.35	-29.24	20.41	0.00	0.00	0.00	0.00	-107.29	110.16	-189.64	133.24	38.5	38.51	38.51	59.23	3	1284.6	1.53	1955	1.5	1922.1	-0.870	0.22	0.22	-13.38	-27.42	0.33	0.42	-3.53	-2.31			31.49	25.87	-39.53	-33.72	160.8	160.87	160.57	180.57	184.25	223.9	115	6080	136	0.95173546	5124.7	0.782	0.91	0.91	0.414	0.145	0.56	Yes	0.226	0.080	0.31	Yes								
	U_{10}-L_9	-48.54	73.82	0.40	0.73	-3.61	1.75					3.61	6.55	-32.51	16.04	0.00	0.00	0.00	0.00	-107.29	110.16	-185.54	130.71	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.705	0.32	0.32	35.39	-14.75	4.18	3.64	-1.41	-8.46			37.65	32.72	-12.65	-85.10	0.00	0.00	0.00	0.00	-127.58	-51.73	-18.61	-203.34	173.7	173.70	173.70	202.71	247.5	1.17	6690	234	0.95473158	5330.1	-0.091	0.56	0.56	0.461	0.117	0.58	Yes	0.254	0.064	0.32	Yes								
	L_{10}-U_{11}	-75.30	45.58	0.53	-0.49	-3.89	2.29					4.79	-3.77	-33.17	24.83	0.00	0.00	0.00	0.00	-127.50	136.10	-192.76	133.24	38.5	38.51	38.51	59.23	3	1284.6	1.53	1955	1.5	1922.1	-0.870	0.22	0.22	-13.38	-27.42	0.33	0.42	-3.53	-2.31			46.71	41.07	-23.65	-10.40	0.00	0.00	0.00	0.00	-245.95	-135.46	-88.17	-301.77	160.8	160.87	160.57	180.57	184.25	223.9	115	6080	136	0.95173546	5124.7	0.782	0.91	0.91	0.414	0.145	0.56	Yes	0.226	0.080	0.31	Yes								
	U_{11}-L_{10}	-108.36	116.66	0.43	0.51	-4.38	4.25					3.86	4.57	-39.38	38.27	0.00	0.00	0.00	0.00	-132.51	160.27	-226.19	233.28	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.970	0.21	0.21	165.46	88.66	2.07	1.86	0.86	1.90			255.50	151.57	231.95	-134.66	201.3	201.30	201.30	221.31	271.6	1.10	7303	171	0.91184461	6323.0	0.593	0.84	0.84	0.526	0.134	0.67	Yes	0.289	0.074	0.37	Yes								
	L_{11}-U_{12}	-154.28	139.69	0.48	-0.19	-5.27	4.82					4.28	-1.65	-47.47	43.50	0.00	0.00	0.00	0.00	-191.28	137.93	-333.38	275.64	52.3	52.34	52.34	80.30	8	1389.6	1.53	2155	1.5	2115.6	-0.709	0.32	0.32	19.71	8.32	19.02	12.44	0.00	0.00	0.00	0.00	299.32	160.80	297.82	169.73	173.7	173.70	173.70	202.71	247.5	1.17	6690	125	0.94531703	5417.8	0.533	0.81	0.81	0.533	0.166	0.70	Yes	0.293	0.102	0.40	Yes								
	U_{12}-L_{11}	-24.74	100.39	1.26	-0.79	-2.41	3.35					11.33	-7.57	-21.69	30.19	0.00	0.00	0.00	0.00	-7.61	115.46	-79.14	196.17	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.403	0.44	0.44	80.66	53.60	-1.07	-1.29	-0.98	1.51			-9.63	-11.57	-0.72	13.61	0.00	0.00	0.00	0.00	84.00	44.63	123.30	99.17	148.0	147.96	147.96	167.25	201.8	1.13	5519	114	0.92749950	4328.7	0.960	0.98	0.98	0.399	0.130	0.49	Yes	0.197	0.071	0.27	Yes								
	L_{12}-U_{13}	-98.29	3.59	0.00	0.00	-4.12	0.00					-100.64	10.92	-216.66	2.18	0.00	0.00	0.00	0.00

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Segment
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.00	DL Factor:	1.00
LL Factor:	2.17	LL Factor:	1.60

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LFD) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, 17th Edition

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

(Case I considered in Max. Tension/Compression Load)

M_2 Information | **M_3 Information**

| Location | Member | ZZ Axis Moments from STAAD: Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) Start (k-in) | Pedestrian Load (Max) End (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Max Start (k-in) | Impact Pedestrian Load Max End (k-in) | ZZ Axis Moment Properties: Max. Pos. Moment Start k-in | Max. Pos. Moment End k-in | S_{bb} (in^3) | S_b (in^3) | S_{tb} (in^3) | S_t (in^3) | J (in^4) | I_{xx} (in^4) | Shape Factor f | M_p (k-in) | Formula I & Form ? F<Sbb | M_n (k-in) | Equivalent Mem. Factor a | Equivalent Mem. Factor $C_{b(a)}$ | Equivalent Mem. Factor $C_{b(bb)}$ | YY Axis Moments from STAAD: Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) Start (k-in) | Pedestrian Load (Max) End (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Max Start (k-in) | Impact Pedestrian Load Max End (k-in) | YY Axis Moment Properties: Max. Pos. Moment Start k-in | Max. Pos. Moment End k-in | Max. Neg. Mom. k-in | S_{bb} (in^3) | S_b (in^3) | S_{tb} (in^3) | S_t (in^3) | Z_Y (in^3) | I_{yy} (in^4) | Shape Factor f | M_p (k-in) | P_{cm} (kip) | Formula I & Form ? F<Sbb | M_n (k-in) | Equivalent Mem. Factor a | Equivalent Mem. Factor $C_{b(a)}$ | Equivalent Mem. Factor $C_{b(bb)}$ | Pass | Yield: Axial Portion | Yield: Moment Portion | Yield: Total | Pass | Tension: Axial Portion | Tension: Moment Portion | Tension: Total | Pass | Fracture: Axial Portion | Fracture: Moment Portion | Fracture: Total | Pass | Buckle: Axial Portion | Buckle: Moment Portion | Buckle: Total | Pass | Compression: Axial Portion | Compression: Moment Portion | Compression: Total | Pass |
|---|---|---|---

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Start (k-in)	Impact Pedestrian Load End (k-in)
Structure 1	L_0-L_1	-19.48	-91.71	1.75	-2.28	-0.69	0.71	0.30	-0.64	0.17
	L_1-L_2	30.33	-116.64	0.52	-6.98	-0.65	2.32	0.00	0.00	-0.22
	L_2-L_3	29.11	-78.07	2.60	-7.07	-4.81	2.01	0.00	-1.04	-1.27
	L_3-L_4	-55.05	14.64	1.32	-4.15	-4.45	-3.64	0.23	0.86	-1.19
	L_4-L_5	-50.77	234.70	3.47	-3.44	-2.72	-6.48	-0.09	0.44	-0.32
	L_5-L_6	-2.22	-269.06	2.48	-4.54	-2.19	0.52	0.53	1.12	-0.84
	L_6-L_7	-2.28	-53.33	2.83	-2.64	-1.87	1.82	0.62	-0.48	-1.79
	L_7-L_8	-38.40	570.90	0.50	-0.50	-0.33	10.51	0.00	0.00	-0.35
	L_8-L_9	555.48	-39.07	10.37	-0.26	-0.35	0.40	-0.27	0.00	0.00
	L_9-L_{10}	186.35	-153.68	3.08	-3.02	-0.48	1.79	0.70	-0.95	-0.36
	L_{10}-L_{11}	164.35	-164.49	3.07	-2.80	-0.26	-0.64	1.00	-0.73	0.00
	L_{11}-L_{12}	179.34	-227.25	3.06	-2.80	-0.26	-0.64	1.00	-0.73	0.00
	L_0-U_1	-57.28	-170.48	1.60	-5.80	-4.89	-4.33	0.43	0.20	-0.37
	U_1-U_2	70.09	-469.84	1.22	-1.13	-2.65	-8.42	0.35	0.23	-0.45
	U_2-U_3	-488.80	-137.87	0.00	-2.64	-3.39	-2.64	0.00	-0.02	-2.55
	U_3-U_4	-272.90	-364.23	0.61	0.20	-4.57	-4.64	0.13	-0.03	-1.43
	U_4-U_5	-202.42	-20.75	0.26	-0.30	-2.80	-0.48	0.06	-0.07	-0.96
	U_5-U_6	-202.42	20.75	0.26	-0.30	-2.80	-0.48	0.06	-0.07	-0.96
	U_6-U_7	-272.90	364.23	0.61	0.20	-4.57	-4.64	0.13	-0.03	-1.43
	U_7-U_8	-488.80	137.87	0.00	-2.64	-3.39	-2.64	0.00	-0.02	-2.55
	U_8-U_9	70.09	469.84	1.22	-1.13	-2.65	-8.42	0.35	0.23	-0.45
	U_9-U_{10}	-57.28	170.48	1.60	-5.80	-4.89	-4.33	0.43	0.20	-0.37
	L_1-U_2	-190.79	100.10	0.28	-0.21	-3.29	2.22	0.06	-0.06	-1.21
	U_2-L_2	26.57	-260.07	1.92	-5.44	-0.48	1.04	0.35	-1.08	-0.06
	L_2-U_3	201.83	-347.07	1.92	-5.44	-0.48	1.04	0.35	-1.08	-0.06
	U_3-L_3	7.20	-277.32	0.74	-1.02	0.01	0.23	-1.18	-0.13	0.17
	L_3-U_4	10.20	-479.11	0.74	-1.02	0.01	0.23	-1.18	-0.13	0.17
	U_4-L_4	-367.44	-421.31	0.73	2.39	-7.26	-8.14	0.04	0.32	-1.24
	L_4-U_5	-215.07	-240.41	0.73	2.39	-7.26	-8.14	0.04	0.32	-1.24
	U_5-L_5	-419.34	-397.03	4.05	0.41	-14.37	-13.20	0.47	0.59	2.41
	L_5-U_6	-394.51	-7.27	3.42	6.46	-12.63	-6.09	0.46	0.90	-1.94
	U_6-L_6	-324.22	260.73	4.30	0.22	-15.27	-14.43	0.47	0.59	2.41
	L_6-U_7	-295.55	262.64	3.16	0.00	-7.50	-1.35	0.41	0.92	1.43
	U_7-L_7	-188.92	585.38	3.25	6.38	-5.21	2.19	0.44	1.14	-1.12
	L_7-U_8	-132.48	-278.64	4.29	0.05	-4.22	2.36	0.55	-1.25	-0.58
	U_8-L_8	474.19	1090.86	1.92	0.00	-4.15	-1.92	0.00	0.00	0.00
	L_8-U_9	1356.39	-488.30	23.11	-6.53	-3.51	2.65	0.56	-1.83	0.00
	U_9-L_9	306.67	-68.03	0.00	0.00	-1.79	2.80	0.00	0.00	0.00
	L_9-U_{10}	579.91	109.27	6.89	-3.20	-1.01	-5.06	2.03	-0.54	0.00
	U_{10}-L_{10}	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{10}-U_{11}	275.71	-101.81	3.83	3.02	-1.34	-2.49	1.05	-0.58	-0.11
	L_{11}-U_{12}	209.90	-114.97	2.25	4.22	-0.88	-5.51	0.42	0.64	-0.29
	U_{12}-L_{12}	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{12}-U_{13}	-33.76	-318.83	2.75	5.22	-6.67	-10.79	0.43	0.76	-0.99
	U_{13}-L_{13}	329.05	-28.84	2.91	5.22	-6.67	-10.79	0.43	0.76	-0.99
	L_{13}-U_{14}	-183.34	53.25	3.07	3.44	-5.77	-2.56	0.42	0.44	-1.14
	U_{14}-L_{14}	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{14}-U_{15}	-100.88	310.38	3.83	3.05	-4.21	1.58	0.38	0.41	0.87
	U_{15}-L_{15}	-92.99	309.46	4.08	6.20	-4.41	3.56	0.46	0.41	-0.75
	L_{15}-U_{16}	84.98	541.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{16}-L_{16}	-16.76	-426.70	5.02	0.09	-3.34	0.71	0.04	-1.43	-3.34
	L_{16}-U_{17}	-532.10	-337.99	3.83	3.05	-4.21	1.58	0.38	0.41	0.87
	U_{17}-L_{17}	1421.72	-453.08	2.51	-2.28	-5.29	2.08	0.23	-1.81	0.00
	L_{17}-U_{18}	-236.11	-179.35	2.91	-2.28	-5.31	-1.73	0.00	0.00	-0.15
	U_{18}-L_{18}	-236.11	-198.24	2.91	-2.28	-5.31	-1.73	0.00	0.00	-0.15
	L_{18}-U_{19}	350.83	-204.00	4.03	-0.94	-0.58	-3.37	0.84	-0.46	0.00
	U_{19}-L_{19}	350.83	-204.00	4.03	-0.94	-0.58	-3.37	0.84	-0.46	0.00
	L_{19}-U_{20}	243.13	-341.87	3.21	3.55	-1.05	-3.57	0.92	0.46	-0.15
	U_{20}-L_{20}	-365.13	-645.03	4.44	2.71	-14.33	-13.14	0.68	0.27	-2.07
	L_{20}-U_{21}	-620.56	-212.20	3.25	0.67	-12.24	-4.91	0.38	0.06	-2.14
	U_{21}-L_{21}	-434.76	-330.50	3.25	0.67	-12.24	-4.91	0.38	0.06	-2.14
	L_{21}-U_{22}	-460.63	26.73	1.68	-0.11	-7.33	0.25	0.11	-0.12	-1.27
	U_{22}-L_{22}	-460.63	26.73	1.68	-0.11	-7.33	0.25	0.11	-0.12	-1.27
	L_{22}-U_{23}	-332.59	186.71	1.29	-0.26	-5.21	2.08	0.10	-0.13	-1.17
	U_{23}-L_{23}	-298.56	65.28	1.29	-0.26	-5.21	2.08	0.10	-0.13	-1.17
	L_{23}-U_{24}	61.32	-104.62	2.40	-3.92	-0.26	0.34	0.57	-0.56	0.08
	U_{24}-L_{24}	196.04	-240.64	2.41	-4.74	-0.40	0.49	0.67	-1.12	-0.10
	L_{24}-U_{25}	23.89	-186.53	2.41	-4.74	-0.40	0.49	0.67	-1.12	-0.10
	U_{25}-L_{25}	40.44	-374.13	0.65	-6.29	-0.33	-1.82	0.00	0.00	-0.11
	L_{25}-U_{26}	40.44	-374.13	0.65	-6.29	-0.33	-1.82	0.00	0.00	-0.11
	U_{26}-L_{26}	-121.41	-479.36	2.91	-4.69	-8.92	0.00	0.00	0.00	-1.04
	L_{26}-U_{27}	-476.91	95.74	1.28	-1.28	-8.68	0.36	0.19	-0.38	-2.32
	U_{27}-L_{27}	-476.91	95.74	1.28	-1.28	-8.68	0.36	0.19	-0.38	-2.32
	L_{27}-U_{28}	-241.33	-199.21	1.34	1.45	-4.52	1.23	0.23	0.47	-1.20
	U_{28}-L_{28}	-241.33	-199.21	1.34	1.45	-4.52	1.23	0.23	0.47	-1.20
	L_{28}-U_{29}	-127.20	-162.45	1.65	-1.97	-1.97	2.88	0.45	-0.34	-0.85
	U_{29}-L_{29}	-127.20	-162.45	1.65	-1.97	-1.97	2.88	0.45	-0.34	-0.85
	L_{29}-U_{30}	606.99	-34.77	0.00	-0.26	-0.81	0.30	0.43	-0.30	0.00
	U_{30}-L_{30}	606.99	-34.77	0.00	-0.26	-0.81	0.30	0.43	-0.30	0.00
	L_{30}-U_{31}	88.27	-47.34	2.04	-4.96	-0.70	2.72	0.43	-0.44	-0.76
	U_{31}-L_{31}	88.27	-47.34	2.04	-4.96	-0.70	2.72	0.43	-0.44	-0.76
	L_{31}-U_{32}	217.39	-65.08	2.41	-3.08	-1.29	-4.81	0.67	0.69	-0.05
	U_{32}-L_{32}	217.39	-65.08	2.41	-3.08	-1.29	-4.81	0.67	0.69	-0.05
	L_{32}-U_{33}	-112.38	-133.88	1.99	0.82	-3.73	-2.70	0.49	-0.22	-1.38
	U_{33}-L_{33}	-112.38	-133.88	1.99	0.82	-3.73	-2.70	0.49	-0.22	-1.38
	L_{33}-U_{34}	-120.88	38.04	0.67	-0.69	-1.60	1.74	0.19	-0.18	-0.88
	U_{34}-L_{34}	-120.88	38.04	0.67	-0.69	-1.60	1.74	0.19	-0.18	-0.88

Location	Member	Live Load (Min) Start (k-in)	Live Load (Min) End (k-in)	Lane Reduction & Impact Live Load Min Start (k-in)	Lane Reduction & Impact Live Load Min End (k-in)	Impact Pedestrian Load Min Start (k-in)	Impact Pedestrian Load Min End (k-in)
Structure 1	L_0-L_1	-0.64	-0.11	0.13	18.90	-24.66	-7.41
	L_1-L_2	0.00	-0.22	-0.91	5.97	-75.38	-7.01
	L_2-L_3	2.50	-7.07	-4.81	2.01	0.00	-1.04
	L_3-L_4	-4.45	-3.64	0.23	0.86	-1.19	-1.34
	L_4-L_5	-3.44	-2.72	-6.48	-0.09	0.44	-0.32
	L_5-L_6	-4.54	-2.19	0.52	0.53	1.12	-0.84
	L_6-L_7	-2.64	-1.87	1.82	0.62	-0.48	-1.79
	L_7-L_8	-0.50	-0.50	-0.33	10.51	0.00	0.00
	L_8-L_9	-0.26	-0.35	0.40	-0.27	0.00	0.00
	L_9-L_{10}	-3.02	-0.48	1.79	0.70	-0.95	-0.36
	L_{10}-L_{11}	-2.80	-0.26	-0.64	1.00	-0.73	0.00
	L_{11}-L_{12}	-2.80	-0.26	-0.64	1.00	-0.73	0.00
	L_0-U_1	-5.80	-4.89	-4.33	0.43	0.20	-0.37
	U_1-U_2	-1.13	-2.65	-8.42	0.35	0.23	-0.45
	U_2-U_3	-2.64	-3.39	-2.64	0.00	-0.02	-2.55
	U_3-U_4	-4.57	-4.64	0.13	-0.03	-1.43	-1.04
	U_4-U_5	-0.30	-2.80	-0.48	0.06	-0.07	-0.96
	U_5-U_6	-0.30	-2.80	-0.48	0.06	-0.07	-0.96
	U_6-U_7	-4.57	-4.64	0.13	-0.03	-1.43	-1.04
	U_7-U_8	-2.64	-3.39	-2.64	0.00	-0.02	-2.55
	U_8-U_9	-1.13	-2.65	-8.42	0.35	0.23	-0.45
	U_9-U_{10}	-5.80	-4.89	-4.33	0.43	0.20	-0.37
	L_1-U_2	-0.21	-3.29	2.22	0.06	-0.06	-1.21
	U_2-L_2	-5.44	-0.48	1.04	0.35	-1.08	-0.06
	L_2-U_3	-5.44	-0.48	1.04	0.35	-1.08	-0.06
	U_3-L_3	-1.02	0.01	0.23	-1.18	-0.13	0.17
	L_3-U_4	-1.02	0.01	0.23	-1.18	-0.13	0.17
	U_4-L_4	2.39	-7.26	-8.14	0.04	0.32	-1.24
	L_4-U_5	2.39	-7.26	-8.14	0.04	0.32	-1.24
	U_5-L_5	0.41	-14.37	-13.20	0.47	0.59	2.41
	L_5-U_6	6.46	-12.63	-6.09	0.46	0.90	-1.94
	U_6-L_6	0.22	-15.27	-14.43	0.47	0.59	2.41
	L_6-U_7	0.00	-7.50	-1.35	0.41	0.92	1.43
	U_7-L_7	6.38	-5.21	2.19	0.44	1.14	-1.12
	L_7-U_8	4.29	-4.22	2.36	0.55	-1.25	-0.58
	U_8-L_8	0.00	-4.15	-1.92	0.00	0.00	0.00
	L_8-U_9	-6.53	-3.51	2.65	0.56	-1.83	0.00
	U_9-L_9	0.00	0.00	-1.79	2.80	0.00	0.00
	L_9-U_{10}	-3.20	-1.01	-5.06	2.03	-0.54	0.00
	U_{10}-L_{10}	0.00	0.00	0.00	0.00	0.00	0.00
	L_{10}-U_{11}	3.02	-1.34	-2.49	1.05	-0.58	-0.11
	L_{11}-U_{12}	4.22	-0.88	-5.51	0.42	0.64	-0.29
	U_{12}-L_{12}	0.00	0.00	0.00	0.00	0.00	0.00
	L_{12}-U_{13}	5.22	-6.67	-10.79	0.43	0.76	-0.99
	U_{13}-L_{13}	5.22	-6.67	-10.79	0.43	0.76	-0.99
	L_{13}-U_{14}	3.44	-5.77	-2.56	0.42	0.44	-1.14
	U_{14}-L_{14}	0.00	0.00	0.00	0.00	0.00	0.00
	L_{14}-U_{15}	3.05	-4.21	1.58	0.38	0.41	0.87
	L_{15}-U_{16}	6.20	-4.41	3.56	0.46	0.41	-0.75
	L_{16}-U_{17}	0.00	0.00	0.00	0.00	0.00	0.00
	U_{16}-L_{16}	-1.43	-3.34	-0.13	54.22	-0.36	-36.53
	L_{16}-U_{17}	3.05	-4.21	1.58	0.38	0.41	0.87
	U_{17}-L_{17}	-2.28	-5.29	2.08	0.23	-1.81	0.00
	L_{17}-U_{18}	-2.28	-5.31	-1.73	0.00	0.00	-0.15
	U_{18}-L_{18}	-2.28	-5.31	-1.73	0.00	0.00	-0.15
	L_{18}-U_{19}	-0.94	-0.58	-3.37	0.84	-0.46	0.00
	U_{19}-L_{19}	-0.94	-0.58	-3.37	0.84	-0.46	0.00
	L_{19}-U_{20}	3.55	-1.05	-3.57	0.92	0.46	-0.15
	U_{20}-L_{20}	2.71	-14.33	-13.14	0.68	0.27	-2.07
	L_{20}-U_{21}	0.67	-12.24	-4.91	0.38	0.06	-2.14
	U_{21}-L_{21}	0.67	-12.24	-4.91	0.38	0.06	-2.14
	L_{21}-U_{22}	-0.11	-7.33	0.25	0.11	-0.12	-1.27
	U_{22}-L_{22}	-0.11	-7.33	0.25	0.11	-0.12	-1.27
	L_{22}-U_{23}	-0.26	-5.21	2.08	0.10	-0.13	-1.17
	U_{23}-L_{23}	-0.26	-5.21	2.08	0.10	-0.13	-1.17
	L_{23}-U_{24}	0.34	-0.26	0.34	0.57	-0.56	0.08
	U_{24}-L_{24}	-4.74	-0.40	0.49	0.67	-1.12	-0.10
	L_{24}-U_{25}	-4.74	-0.40	0.49	0.67	-1.12	-0.10
	U_{25}-L_{25}	-6.29	-0.33	-1.82	0.00	0.00	-0.11
	L_{25}-U_{26}	-6.29	-0.33	-1.82	0.00	0.00	-0.11
	U_{26}-L_{26}	-4.69	-8.92	0.00	0.00	0.00	-1.04
	L_{26}-U_{27}	-1.28	-8.68	0.36	0.19	-0.38	-2.32
	U_{27}-L_{27}	-1.28	-8.68	0.36	0.19	-0.38	-2.32
	L_{27}-U_{28}	1.45	-4.52	1.23	0.23	0.47	-1.20
	U_{28}-L_{28}	1.45	-4.52	1.23	0.23	0.47	-1.20
	L_{28}-U_{29}	-1.97	-1.97	2.88	0.45	-0.34	-0.85
	U_{29}-L_{29}	-1.97	-1.97	2.88	0.45	-0.34	-0.85
	L_{29}-U_{30}	-0.26	-0.81	0.30	0.43	-0.30	0.00
	U_{30}-L_{30}	-0.26	-0.81	0.30	0.43	-0.30	0.00
	L_{30}-U_{31}	-4.96	-0.70	2.72	0.43	-0.44	-0.76
	U_{31}-L_{31}	-4.96	-0.70	2.72	0.43	-0.44	-0.76
	L_{31}-U_{32}	-3.08	-1.29	-4.81	0.67	0.69	-0.05
	U_{32}-L_{32}	-3.08	-1.29	-4.81	0.67	0.69	-0.05
	L_{32}-U_{33}	0.82	-3.73	-2.70	0.49	-0.22	-1.38
	U_{33}-L_{33}	0.82	-3.73	-2.70	0.49	-0.22	-1.38
	L_{33}-U_{34}	-0.69	-1.60	1.74	0.19	-0.18	-0.88
	U_{34}-L_{34}	-0.69	-1.60	1.74	0.19	-0.18	-0.88

M_3 Information

YY Axis Moments from STAAD

Location	Member	Start (k-in)	End (k-in)	S_{bb} (in^3)	S_{tb} (in^3)	Z_z (in^3)	I_z (in^4)	I_{bb} (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F$_y$/S$_{bb}$	M_u (k-in)	Equivalent Mem. Factor a	Equivalent Mem. Factor $C_m/(1-f_a/F'_e)$	C_{mbb}
Structure 2	L_0-L_1	19.48	91.71	1.75	2.28	0.69	0.71	0.30	0.64	0.11
	L_1-L_2	30.33	116.64	0.52	6.98	0.65	2.32	0.00	0.00	0.22
	L_2-L_3	29.11	78.07	2.60	7.07	4.81	2.01	0.00	1.04	1.27
	L_3-L_4	55.05	14.64	1.32	4.15	4.45	3.64	0.23	0.86	1.19
	L_4-L_5	50.77	234.70	3.47	3.44	2.72	6.48	0.09	0.44	0.32
	L_5-L_6	2.22	269.06	2.48	4.54	2.19	0.52	0.53	1.12	0.84
	L_6-L_7	2.28	53.33	2.83	2.64	1.87	1.82	0.62	0.48	1.79
	L_7-L_8	38.40	570.90	0.50	0.50	0.33	10.51	0.00	0.00	0.35
	L_8-L_9	555.48	39.07	10.37	0.26	0.35	0.40	0.27	0.00	0.00
	L_9-L_{10}	186.35	153.68	3.08	3.02	0.48	1.79	0.70	0.95	0.36
	L_{10}-L_{11}	164.35	164.49	3.07	2.80	0.26	0.64	1.00	0.73	0.00
	L_{11}-L_{12}	179.34	227.25	3.06	2.80	0.26	0.64	1.00	0.73	0.00
	L_0-U_1	57.28	170.48	1.60	5.80	4.89	4.33	0.43	0.20	0.37
	U_1-U_2	70.09	469.84	1.22	1.13	2.65	8.42	0.35	0.23	0.45
	U_2-U_3	488.80	137.87	0.00	2.64	3.39	2.64	0.00	0.02	2.55
	U_3-U_4	272.90	364.23	0.61	0.20	4.57	4.64	0.13	0.03	1.43
	U_4-U_5	202.42	20.75	0.26	0.30	2.80	0.48	0.06	0.07	0.96
	U_5-U_6	202.42	20.75	0.26	0.30	2.80	0.48	0.06	0.07	0.96
	U_6-U_7	272.90	364.23	0.61	0.20	4.57	4.64	0.13	0.03	1.43
	U_7-U_8	488.80	137.87	0.00	2.64	3.39	2.64	0.00	0.02	2.55
	U_8-U_9	70.09	469.84	1.22	1.13	2.65	8.42	0.35	0.23	0.45
	U_9-U_{10}	57.28	170.48	1.60	5.80	4.89	4.33	0.43	0.20	0.37
	L_1-U_2	190.79	100.10	0.28	0.21	3.29	2.22	0.06	0.06	1.21
	U_2-L_2	26.57	260.07	1.92	5.44	0.48	1.04	0.35	1.08	0.06
	L_2-U_3	201.83	347.07	1.92	5.44	0.48	1.04	0.35	1.08	0.06
	U_3-L_3	7.20	277.32	0.74	1.02	0.01	0.23	1.18	0.13	0.17
	L_3-U_4	10.20	479.11	0.74	1.02	0.01	0.23	1.18	0.13	0.17
	U_4-L_4	367.44	421.31	0.73	2.39	7.26	8.14	0.04	0.32	1.24
	L_4-U_5	215.07	240.41	0.73	2.39	7.26	8.14	0.04	0.32	1.24
	U_5-L_5	419.34	397.03	4.05	0.41	14.37	13.20	0.47	0.59	2.41
	L_5-U_6	394.51	7.27	3.42	6.46	12.63	6.09	0.46	0.90	1.94
	U_6-L_6	324.22	260.73	4.30	0.22	15.27	14.43	0.47	0.59	2.41
	L_6-U_7	295.55	262.64	3.16	0.00	7.50	1.35	0.41	0.92	1.43
	U_7-L_7	188.92	585.38	3.25	6.38	5.21	2.19	0.44	1.14	1.12
	L_7-U_8	132.48	278.64	4.29	0.05	4.22	2.36	0.55	1.25	0.58
	U_8-L_8	474.19	1090.86	1.92	0.00	4.15	1.92	0.00	0.00	0.00
	L_8-U_9	1356.39	488.30	23.11	6.53	3.51	2.65	0.56	1.83	0.00
	U_9-L_9	306.67	68.03	0.00	0.00	1.79	2.80	0.00	0.00	0.00
	L_9-U_{10}	579.91	109.27	6.89	3.20	1.01	5.06	2.03	0.54	0.00
	U_{10}-L_{10}	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{10}-U_{11}	275.71	101.81	3.83	3.02	1.34	2.49	1.05	0.58	0.11
	L_{11}-U_{12}	209.90	114.97	2.25	4.22	0.88	5.51	0.42	0.64	0.29
	U_{12}-L_{12}	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{12}-U_{13}	33.76	318.83	2.75	5.22	6.67	10.79	0.43	0.76	0.99
	U_{13}-L_{13}	329.05	28.84	2.91	5.22	6.67	10.79	0.43	0.76	0.99
	L_{13}-U_{14}	183.34	53.25	3.07	3.44	5.77	2.56	0.42	0.44	1.14
	U_{14}-L_{14}	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{14}-U_{15}	100.88	310.38	3.83	3.05	4.21	1.58	0.38	0.41	0.87
	U_{15}-L_{15}	92.99	309.46	4.08	6.20	4.41	3.56	0.46	0.41	0.75
	L_{15}-U_{16}	84.98	541.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{16}-L_{16}	16.76	426.70	5.02	0.09	3.34	0.71	0.04	1.43	3.34
	L_{16}-U_{17}	532.10	337.99	3.83	3.05	4.21	1.58	0.38	0.41	0.87
	U_{17}-L_{17}	1421.72	453.08	2.51	2.28	5.29	2.08	0.23	1.81	0.00
	L_{17}-U_{18}	236.11	179.35	2.91	2

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information | M_7 Information

| Location | Member | ZZ Axis Moments from STAAD: Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) (k-in) | Pedestrian Load (Min) (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Start (k-in) | Impact Pedestrian Load End (k-in) | ZZ Axis Moment Properties: Max. Pos. Mom. Start (k-in) | Max. Pos. Mom. End (k-in) | S_{top} (in^3) | S_{bot} (in^3) | Z_x (in^3) | Z_y (in^4) | I_{xx} (in^4) | Shape Factor f | M_p (k-in) | Formula 1.8 Term * F_y/S_x | M_y (k-in) | Equivalent Mom. Factor: C_{mx} | C_{mx} | C_{mx} | YY Axis Moments from STAAD: Dead Load (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) (k-in) | Pedestrian Load (Min) (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Start (k-in) | Impact Pedestrian Load End (k-in) | YY Axis Moment Properties: Max. Neg. Mom. Start (k-in) | Max. Neg. Mom. End (k-in) | S_{top} (in^3) | S_{bot} (in^3) | Z_y (in^3) | I_{yy} (in^4) | Shape Factor f | M_p (k-in) | P_{crit} (k) | Formula 1.8 Term * F_y/S_x | M_x (k-in) | Equivalent Mom. Factor: C_{mx} | C_{mx} | C_{mx} | Tension: Yield Axial Action | Yield Moment Action | Yield Total | Yield Pass | Fracture Axial Action | Fracture Moment Action | Fracture Total | Fracture Pass | Compression: Buckle Axial Action | Buckle Moment Action | Buckle Total | Buckle Pass | Yield Axial Action | Yield Moment Action | Yield Total | Yield Pass |
|---|---|---|---

Moment (Start) - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1998

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

M_7 Information

| Location | | Member | ZZ Axis Moments from STAAD: Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) Start (k-in) | Pedestrian Load (Max) End (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Max Start (k-in) | Impact Pedestrian Load Max End (k-in) | Max. Pos. Mom. Start (k-in) | Max. Pos. Mom. End (k-in) | Max. Neg. Mom. Start (k-in) | Max. Neg. Mom. End (k-in) | S_{req} (in^3) | S_{fc} (in^3) | S_{ft} (in^3) | Z_r (in^3) | I_{req} (in^4) | Shape Factor | M_p (k-in) | Formula 1.8 Term * F_y/S_{req} | M_u (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor $C_{m(x)}$ | Equivalent Mom. Factor $C_{m(y)}$ | YY Axis Moments from STAAD: Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) Start (k-in) | Pedestrian Load (Max) End (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Max Start (k-in) | Impact Pedestrian Load Max End (k-in) | Max. Pos. Mom. Start (k-in) | Max. Pos. Mom. End (k-in) | Max. Neg. Mom. Start (k-in) | Max. Neg. Mom. End (k-in) | S_{req} (in^3) | S_{fc} (in^3) | S_{ft} (in^3) | Z_r (in^3) | I_{req} (in^4) | Shape Factor | M_p (k-in) | P_{crit} (kips) | Formula 1.8 Term * F_y/M_u | M_u (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor $C_{m(x)}$ | Equivalent Mom. Factor $C_{m(y)}$ | Axial Force (kips) | Moment (k-in) | Total | Pass | Axial Force (kips) | Moment (k-in) | Total | Pass | Axial Force (kips) | Moment (k-in) | Total | Pass | Axial Force (kips) | Moment (k-in) | Total | Pass |
|---|---|---|---

Moment (Start) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Upper Chord	Structure 1	$U_0 - U_1$	-----	-595.10	-54	-160	-429	-568	39	105	-66	-131	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.186	1.00	Yes	0.802	0.135	0.94	Yes	1.00	**4.77**
		$U_1 - U_2$	75.98	-596.44	-54	117	-160	-620	-7	-7	-17	-154	0.087	0.173	0.27	Yes	0.060	0.119	0.18	Yes	0.812	0.180	1.00	Yes	0.804	0.148	0.96	Yes	1.00	**2.58**
		$U_2 - U_3$	187.40	-637.52	-107	305	-454	-300	10	26	-26	129	0.215	0.130	0.35	Yes	0.145	0.085	0.23	Yes	0.867	0.128	1.00	Yes	0.860	0.108	0.97	Yes	1.00	**2.39**
		$U_3 - U_4$	357.62	-559.60	84	319	-390	-613	5	38	156	62	0.410	0.172	0.59	Yes	0.281	0.118	0.40	Yes	0.761	0.233	1.00	Yes	0.755	0.146	0.91	Yes	1.00	**2.36**
		$U_4 - U_5$	380.12	-583.93	141	309	-869	-151	22	-31	93	-51	0.436	0.222	0.66	Yes	0.299	0.153	0.46	Yes	0.795	0.195	0.99	Yes	0.787	0.206	1.00	Yes	1.00	**2.48**
		$U_5 - U_6$	723.28	-363.00	283	500	-458	270	-157	-79	249	-287	0.829	0.167	1.00	Yes	0.559	0.110	0.67	Yes	0.494	0.145	0.64	Yes	0.490	0.119	0.61	Yes	1.00	**3.35**
		$U_6 - U_7$	897.65	-----	397	238	-334	41	-320	-132	384	-120	0.858	0.137	1.00	Yes	0.600	0.095	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.08**
		$U_7 - U_8$	994.74	-----	39	1143	-609	1717	-455	26	-2	-374	0.689	0.306	1.00	Yes	0.481	0.209	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.67**
		$U_8 - U_9$	852.58	-----	1435	-416	687	-167	-431	-91	-237	-119	0.699	0.294	1.00	Yes	0.478	0.200	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.83**
		$U_9 - U_{10}$	739.64	-----	499	-10	90	58	-261	532	-43	150	0.802	0.197	1.00	Yes	0.543	0.132	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.00**
		$U_{10} - U_{11}$	-----	-375.33	1861	-2300	132	-230	125	428	118	84	-----	-----	-----	-----	-----	-----	-----	-----	0.483	0.320	0.81	Yes	0.479	0.515	1.00	Yes	1.00	**14.39**
		$U_{11} - U_{12}$	647.36	-824.14	717	194	-33	-787	-24	335	594	992	0.516	0.249	0.77	Yes	0.350	0.167	0.52	Yes	0.780	0.211	1.00	Yes	0.773	0.131	0.91	Yes	1.00	**6.13**
		$U_{12} - U_{13}$	-----	-1272.82	9	-234	-193	-573	346	206	537	330	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.133	1.00	Yes	0.850	0.079	0.93	Yes	1.00	**2.11**
		$U_{13} - U_{14}$	-----	-1350.42	-154	-389	-462	-1405	225	177	383	502	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.213	1.00	Yes	0.774	0.155	0.93	Yes	1.00	**1.69**
		$U_{14} - U_{15}$	-----	-1354.47	-280	-254	-1315	-606	213	29	591	170	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.211	1.00	Yes	0.776	0.145	0.93	Yes	1.00	**1.69**
		$U_{15} - U_{16}$	-----	-1485.97	-143	-431	-557	-797	79	36	431	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.136	1.00	Yes	0.852	0.088	0.94	Yes	1.00	**2.06**
		$U_{16} - U_{17}$	-----	-1426.41	-329	-190	-1099	-403	156	-50	604	56	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.170	1.00	Yes	0.818	0.121	0.94	Yes	1.00	**2.34**
		$U_{17} - U_{18}$	-----	-1105.91	-203	-80	-676	107	-14	-62	461	-59	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.122	1.00	Yes	0.865	0.110	0.98	Yes	1.00	**2.46**
		$U_{18} - U_{19}$	-----	-738.31	-191	-75	-714	-40	14	-116	465	-280	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.157	1.00	Yes	0.831	0.144	0.98	Yes	1.00	**2.65**
		$U_{19} - U_{20}$	-----	-469.25	-238	115	-1545	2346	-117	-7	414	-1343	-----	-----	-----	-----	-----	-----	-----	-----	0.533	0.334	0.87	Yes	0.528	0.472	1.00	Yes	1.00	**5.70**
	Structure 2	$U_0 - U_1$	-----	-646.96	366	-838	-424	-1264	89	96	-49	-116	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.225	1.00	Yes	0.764	0.215	0.98	Yes	1.00	**8.18**
		$U_1 - U_2$	-----	-887.08	47	-888	-57	-377	-35	-153	69	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.136	1.00	Yes	0.856	0.135	1.00	Yes	1.00	**3.02**
		$U_2 - U_3$	-----	-1160.07	-62	-775	-181	-1163	165	825	-103	259	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.167	1.00	Yes	0.823	0.118	0.95	Yes	1.00	**4.01**
		$U_3 - U_4$	-----	-1454.97	-400	-372	-802	-1057	260	367	172	130	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.157	1.00	Yes	0.828	0.094	0.93	Yes	1.00	**2.24**
		$U_4 - U_5$	-----	-1581.86	-418	-398	-841	-1419	370	124	225	135	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.173	1.00	Yes	0.812	0.118	0.93	Yes	1.00	**2.07**
		$U_5 - U_6$	-----	-1641.01	-392	69	-1149	-770	182	-246	263	377	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.143	1.00	Yes	0.843	0.095	0.94	Yes	1.00	**1.95**
		$U_6 - U_7$	-----	-1398.14	-260	-82	-959	-1434	-152	-196	337	135	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.193	1.00	Yes	0.796	0.128	0.93	Yes	1.00	**1.60**
		$U_7 - U_8$	-----	-1405.98	-179	-154	-1530	-824	-114	-192	206	53	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.186	1.00	Yes	0.801	0.136	0.94	Yes	1.00	**1.61**
		$U_8 - U_9$	-----	-1278.34	-244	158	-962	-400	-109	-208	311	-229	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.121	1.00	Yes	0.867	0.102	0.97	Yes	1.00	**1.79**
		$U_9 - U_{10}$	187.14	-970.28	-50	374	-1136	-129	-149	-157	259	-50	0.137	0.166	0.31	Yes	0.093	0.113	0.21	Yes	0.842	0.151	1.00	Yes	0.837	0.138	0.98	Yes	1.00	**1.90**
		$U_{10} - U_{11}$	651.49	-821.88	287	466	-1081	-95	-215	-183	331	-135	0.550	0.193	0.75	Yes	0.374	0.125	0.50	Yes	0.822	0.169	1.00	Yes	0.817	0.153	0.97	Yes	1.00	**2.89**
		$U_{11} - U_{12}$	934.38	-291.59	313	593	-1082	389	-388	-145	427	-112	0.789	0.205	1.00	Yes	0.530	0.137	0.67	Yes	0.292	0.121	0.42	Yes	0.290	0.153	0.45	Yes	1.00	**3.22**
		$U_{12} - U_{13}$	1261.75	-----	555	158	-754	-302	-474	-411	422	-451	0.852	0.140	1.00	Yes	0.607	0.096	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.79**
		$U_{13} - U_{14}$	1214.91	-----	26	2128	-1265	3384	-789	-397	-220	-1211	0.597	0.396	1.00	Yes	0.423	0.261	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.08**
		$U_{14} - U_{15}$	1276.04	-----	3188	-318	1302	67	-1036	-625	-816	-608	0.627	0.366	1.00	Yes	0.444	0.241	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.94**
		$U_{15} - U_{16}$	1483.51	-----	280	371	-10	-353	-520	365	-298	697	0.897	0.101	1.00	Yes	0.638	0.070	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.10**
		$U_{16} - U_{17}$	1094.19	-----	1385	-354	353	33	69	137	66	72	0.806	0.188	1.00	Yes	0.536	0.124	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		$U_{17} - U_{18}$	571.56	-----	1245	-1556	168	-351	-9	1056	437	592	0.574	0.419	1.00	Yes	0.382	0.277	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.92**
		$U_{18} - U_{19}$	850.54	-8.99	540	443	128	-167	53	111	347	307	0.854	0.143	1.00	Yes	0.560	0.091	0.66	Yes	0.011	0.148	0.16	Yes	0.011	0.092	0.11	Yes	1.00	**3.52**
		$U_{19} - U_{20}$	875.34	-731.33	526	467	-269	-589	-43	-126	150	454	0.821	0.156	0.98	Yes	0.544	0.102	0.65	Yes	0.812	0.180	1.00	Yes	0.807	0.094	0.91	Yes	1.00	**4.00**
		$U_{20} - U_{21}$	843.71	-916.63	375	376	-452	-669	-192	-111	336	238	0.655	0.134	0.79	Yes	0.458	0.087	0.55	Yes	0.843	0.155	1.00	Yes	0.837	0.097	0.94	Yes	1.00	**4.12**
		$U_{21} - U_{22}$	311.42	-833.79	74	153	-508	-1121	-28	30	184	340	0.242	0.199	0.45	Yes	0.171	0.134	0.31	Yes	0.767	0.228	1.00	Yes	0.761	0.162	0.93	Yes	1.00	**1.86**
		$U_{22} - U_{23}$	312.01	-835.03	162	55	-1105	-505	-3	-9	405	83	0.242	0.204	0.45	Yes	0.172	0.137	0.31	Yes	0.768	0.225	1.00	Yes	0.762	0.160	0.93	Yes	1.00	**1.86**
		$U_{23} - U_{24}$	940.64	-893.24	413	402	-944	-292	-215	-27	373	-49	0.730	0.178	0.91	Yes	0.511	0.116	0.63	Yes	0.821	0.173	1.00	Yes	0.815	0.137	0.96	Yes	1.00	**4.62**
		$U_{24} - U_{25}$	527.78	-792.58	297	304	-690	-99	-132	-27	390	-136	0.495	0.163	0.66	Yes	0.328	0.107	0.44	Yes	0.880	0.115	1.00	Yes	0.874	0.111	0.99	Yes	1.00	**2.53**
		$U_{25} - U_{26}$	815.48	-687.06	415	457	-746	373	-261	-3	302	-249	0.819	0.171	0.99	Yes	0.537	0.109	0.65	Yes	0.816	0.182	1.00	Yes	0.811	0.127	0.94	Yes	1.00	**3.56**
		$U_{26} - U_{27}$	812.89	-----	451	319	-822	664	-301	0	163	-187	0.816	0.184	1.00	Yes	0.543	0.121	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.18**
		$U_{27} - U_{28}$	1134.38	-----	429	438	-731	917	-462	76	316	-328	0.836	0.164	1.00	Yes	0.556	0.108	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.55**
		$U_{28} - U_{29}$	1443.14	-----	636	42	-633	-135	-571	-196	268	-478	0.872	0.120	1.00	Yes	0.621	0.082	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.05**
		$U_{29} - U_{30}$	1226.51	-----	182	1289	-807	3600	-339	-14	-148	-926	0.603	0.397	1.00	Yes	0.427	0.260	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		$U_{30} - U_{31}$	1288.18	-----	3227	-630	1071	-131	-894	-445	-314	-194	0.633	0.360	1.00	Yes	0.448	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		$U_{31} - U_{32}$	1140.95	-----	313	986	-285	-680	-800	-212	668	1009	0.770	0.220	1.00	Yes	0.549	0.152	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.49**
		$U_{32} - U_{33}$	909.44	-81.99	1023	-1117	120	-597	180	315	557	583	0.768	0.229	1.00	Yes	0.516	0.153	0.67	Yes	0.082	0.141	0.23	Yes	0.081	0.158	0.24	Yes	1.00	**4.47**
		$U_{33} - U_{34}$	971.32	-374.93	527	422	-214	-664	-37	189	491	670	0.820	0.175	1.00	Yes	0.558	0.116	0.68	Yes	0.375	0.164	0.54	Yes	0.373	0.094	0.47	Yes	1.00	**3.88**
		$U_{34} - U_{35}$	1109.25	-838.50	824	471	-370	-886	-16	47	677	521	0.814	0.181	1.00	Yes	0.551	0.122	0.68	Yes	0.728	0.172	0.91	Yes	0.724	0.108	0.84	Yes	1.00	**5.34**
		$U_{35} - U_{36}$	206.88	-1241.91	211	-105	-312	-903	97	86	360	436	0.119	0.132	0.26	Yes	0.084	0.087	0.18	Yes	0.848	0.145	1.00	Yes	0.842	0.096	0.94	Yes	1.00	**2.25**
		$U_{36} - U_{37}$	-----	-1378.92	-40	52	-745	-1565	85	-3	407	268	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.201	1.00	Yes	0.785	0.139	0.93	Yes	1.00	**1.98**
		$U_{37} - U_{38}$	-----	-1377.75	142	-128	-1454	-951	41	23	323	232	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.203	1.00	Yes	0.785	0.130	0.92	Yes	1.00	**1.97**
		$U_{38} - U_{39}$	-----	-1634.93	185	-265	-728	-1264	129	-26	540	-68	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.148	1.00	Yes	0.839	0.105	0.95	Yes	1.00	**2.31**
		$U_{39} - U_{40}$	-----	-1562.07	-157	-328	-1522	-942	26	-13	441	92	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.185	1.00	Yes	0.802	0.126	0.93	Yes	1.00	**2.33**
		$U_{40} - U_{41}$	-----	-1459.98	-204	-330	-1167	-799	54	-99	393	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.154	1.00	Yes	0.831	0.104	0.94	Yes	1.00	**2.51**
		$U_{41} - U_{42}$	-----	-1221.22	-99	-158	-1139	-3	-72	-81	391	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.119	1.00	Yes	0.867	0.116	0.99	Yes	1.00	**2.86**
		$U_{42} - U_{43}$	-----	-858.78	-94	-68	-896	-187	-33	-71	331	-310	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.158	1.00	Yes	0.829	0.136	0.97	Yes	1.00	**3.07**
		$U_{43} - U_{44}$	-----	-528.77	56	-314	-1721	2154	-55	72	148	-1051	-----	-----	-----	-----	-----	-----	-----	-----	0.628	0.238	0.87	Yes	0.624	0.366	1.00	Yes	1.00	**4.79**
	Structure 3	$U_0 - U_1$	-----	-680.27	519	-792	-321	-1116	120	243	-165	-248	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.226	1.00	Yes	0.765	0.225	0.99	Yes	1.00	**7.93**
		$U_1 - U_2$	-----	-758.63	141	-668	-81	-347	-69	-218	119	-24	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.137	1.00	Yes	0.854	0.134	0.99	Yes	1.00	**2.97**
		$U_2 - U_3$	-----	-1098.78	36	-660	-79	-157	-121	184	-52	342	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.122	1.00	Yes	0.860	0.107	0.97	Yes	1.00	**2.72**
		$U_3 - U_4$	-----	-1427.93	-164	-284	-428	-973	335	521	227	251	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.165	1.00	Yes	0.819	0.107	0.93	Yes	1.00	**3.06**
		$U_4 - U_5$	-----	-1503.90	-367	-128	-700	-478	475	141	314	174	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.125	1.00	Yes	0.862	0.077	0.94	Yes	1.00	**2.74**
		$U_5 - U_6$	-----	-1361.20	-188	-282	-579	-1395	142	-147	260	311	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.204	1.00	Yes	0.780	0.154	0.94	Yes	1.00	**1.80**
		$U_6 - U_7$	-----	-1371.40	-380	-107	-1467	-453	-88	-185	395	56	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.196	1.00	Yes	0.786	0.162	0.95	Yes	1.00	**1.83**
		$U_7 - U_8$	-----	-1321.16	-162	8	-516	-314	-61	-179	288	-269	-----	-----	-----	-----	-----	-----	-----	-----	0.893	0.101	1.00	Yes	0.882	0.071	0.96	Yes	1.00	**2.16**
		$U_8 - U_9$	-----	-927.38	-95	187	-728	10	-36	-156	266	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.878	0.111	0.99	Yes	0.870	0.121	1.00	Yes	1.00	**1.92**
		$U_9 - U_{10}$	212.89	-640.35	-49	257	-808	202	-113	-110	222	-177	0.231	0.217	0.45	Yes	0.154	0.139	0.30	Yes	0.825	0.143	0.97	Yes	0.817	0.181	1.00	Yes	1.00	**2.58**
		$U_{10} - U_{11}$	744.06	-219.51	344	243	-567	267	-265	-162	356	-407	0.807	0.192	1.00	Yes	0.547	0.129	0.68	Yes	0.283	0.078	0.37	Yes	0.280	0.127	0.41	Yes	1.00	**4.55**
		$U_{11} - U_{12}$	784.60	-----	-61	977	-791	1558	-417	-88	-23	-708	0.643	0.348	1.00	Yes	0.440	0.237	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.25**
		$U_{12} - U_{13}$	988.64	-----	1599	-258	554	12	-626	-369	-276	-270	0.685	0.306	1.00	Yes	0.478	0.209	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.25**
		$U_{13} - U_{14}$	922.32	-----	266	170	67	193	-426	118	-147	-5	0.882	0.115	1.00	Yes	0.616	0.079	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.86**
		$U_{14} - U_{15}$	527.86	-29.20	1337	-276	164	-198	-47	147	251	414	0.605	0.388	1.00	Yes	0.408	0.253	0.67	Yes	0.040	0.347	0.39	Yes	0.039	0.318	0.36	Yes	1.00	**8.42**
		$U_{15} - U_{16}$	504.91	-561.57	395	278	-143	-831	-69	136	91	457	0.579	0.275	0.86	Yes	0.397	0.188	0.59	Yes	0.764	0.227	1.00	Yes	0.757	0.198	0.96	Yes	1.00	**2.89**
		$U_{16} - U_{17}$	504.89	-572.36	465	177	-618	-407	59	81	446	216	0.579	0.222	0.81	Yes	0.397	0.152	0.55	Yes	0.779	0.216	1.00	Yes	0.772	0.147	0.92	Yes	1.00	**2.92**
		$U_{17} - U_{18}$	303.35	-618.09	416	-37	-290	-481	-96	65	317	-19	0.348	0.168	0.52	Yes	0.235	0.110	0.35	Yes	0.841	0.155	1.00	Yes	0.833	0.114	0.95	Yes	1.00	**2.76**
		$U_{18} - U_{19}$	146.06	-546.12	232	-28	-633	-334	-97	40	514	-17	0.167	0.237	0.41	Yes	0.115	0.162	0.28	Yes	0.743	0.256	1.00	Yes	0.736	0.150	0.89	Yes	1.00	**2.67**
		$U_{19} - U_{20}$	88.67	-523.94	295	-457	-1088	1213	-215	238	413	-758	0.102	0.416	0.52	Yes	0.070	0.285	0.36	Yes	0.713	0.160	0.88	Yes	0.707	0.288	1.00	Yes	1.00	**4.91**

Moment (Start) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Lower Chord	Structure 1	L_0 - L_1	-----	-169.03	2053	-2306	-682	530	-62	-227	-79	-291	-----	-----	-----	-----	-----	-----	-----	-----	0.307	0.527	0.84	Yes	0.304	0.692	1.00	Yes	1.00	**27.92**
		L_1 - L_2	461.83	-----	201	-460	97	-774	60	-190	-195	-241	0.707	0.284	1.00	Yes	0.431	0.190	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.17**
		L_2 - L_3	723.89	-153.99	26	120	-470	-621	-41	48	-98	-53	0.833	0.166	1.00	Yes	0.482	0.100	0.59	Yes	0.210	0.186	0.40	Yes	0.208	0.150	0.36	Yes	1.00	**3.38**
		L_3 - L_4	698.10	-238.97	114	344	-285	-755	87	73	-70	-76	0.803	0.196	1.00	Yes	0.477	0.127	0.61	Yes	0.327	0.183	0.51	Yes	0.323	0.182	0.51	Yes	1.00	**2.74**
		L_4 - L_5	176.81	-525.16	111	602	-744	480	58	37	-251	165	0.229	0.242	0.48	Yes	0.137	0.158	0.30	Yes	0.807	0.165	0.98	Yes	0.800	0.197	1.00	Yes	1.00	**2.16**
		L_5 - L_6	-----	-730.60	165	600	-218	307	72	121	163	138	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.144	1.00	Yes	0.843	0.133	0.98	Yes	1.00	**2.16**
		L_6 - L_7	-----	-1135.89	221	106	-526	432	126	-94	-64	172	-----	-----	-----	-----	-----	-----	-----	-----	0.925	0.039	0.97	Yes	0.914	0.083	1.00	Yes	1.00	**3.25**
		L_7 - L_8	-----	-1225.73	40	790	-97	1561	-110	-127	1	-206	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.213	1.00	Yes	0.776	0.207	0.99	Yes	1.00	**3.54**
		L_8 - L_9	-----	-1287.39	1267	-55	572	-33	-56	-56	-122	-146	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.172	1.00	Yes	0.815	0.168	0.99	Yes	1.00	**1.75**
		L_9 - L_{10}	-----	-1094.22	723	-504	3	142	-184	-271	262	229	-----	-----	-----	-----	-----	-----	-----	-----	0.890	0.076	0.97	Yes	0.881	0.114	1.00	Yes	1.00	**4.75**
		L_{10} - L_{11}	-----	-545.97	628	-318	219	-152	77	-84	112	-37	-----	-----	-----	-----	-----	-----	-----	-----	0.839	0.089	0.93	Yes	0.832	0.166	1.00	Yes	1.00	**2.63**
		L_{11} - L_{12}	126.24	-243.29	2221	-2352	306	-282	434	-835	6	7	0.163	0.769	0.94	Yes	0.098	0.501	0.60	Yes	0.374	0.216	0.60	Yes	0.371	0.623	1.00	Yes	1.00	**18.63**
		L_{12} - L_{13}	1135.06	-65.66	220	-45	-168	-506	24	28	62	13	0.896	0.097	1.00	Yes	0.573	0.058	0.64	Yes	0.062	0.089	0.16	Yes	0.061	0.090	0.16	Yes	1.00	**3.98**
		L_{13} - L_{14}	1231.62	-----	497	-1842	229	-553	-12	-228	15	22	0.724	0.273	1.00	Yes	0.469	0.167	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		L_{14} - L_{15}	1540.87	-----	-369	-27	-1814	-298	-120	-64	-323	30	0.753	0.241	1.00	Yes	0.489	0.146	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.77**
		L_{15} - L_{16}	1709.98	-----	-175	-400	-987	-1102	-84	-33	18	-378	0.835	0.159	1.00	Yes	0.536	0.094	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.14**
		L_{16} - L_{17}	1164.91	-----	-405	84	-1367	196	-80	-65	-690	96	0.737	0.262	1.00	Yes	0.478	0.162	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.37**
		L_{17} - L_{18}	792.02	-----	-150	-95	-1096	484	-37	29	-328	-701	0.690	0.301	1.00	Yes	0.441	0.183	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.01**
		L_{18} - L_{19}	98.42	-294.61	-163	269	-1545	1097	-4	-40	-1128	490	0.151	0.698	0.85	Yes	0.102	0.445	0.55	Yes	0.535	0.256	0.80	Yes	0.530	0.464	1.00	Yes	1.00	**8.99**
		L_{19} - L_{20}	70.39	-466.07	-95	-28	-532	260	-28	-6	146	33	0.108	0.190	0.30	Yes	0.066	0.127	0.20	Yes	0.847	0.117	0.97	Yes	0.839	0.160	1.00	Yes	1.00	**3.23**
	Structure 2	L_0 - L_1	9.18	-280.67	1220	-2927	-190	178	-21	-73	-45	-157	0.011	0.621	0.64	Yes	0.007	0.402	0.41	Yes	0.404	0.400	0.81	Yes	0.401	0.596	1.00	Yes	1.00	**14.85**
		L_1 - L_2	585.71	-----	548	-1327	130	-137	-94	-57	-62	-9	0.711	0.285	1.00	Yes	0.423	0.185	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.60**
		L_2 - L_3	1055.93	-----	141	-1068	-72	-100	-16	-26	61	83	0.832	0.163	1.00	Yes	0.546	0.097	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.62**
		L_3 - L_4	1320.53	-----	124	-1199	-178	-1413	684	69	51	-103	0.776	0.220	1.00	Yes	0.522	0.138	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.95**
		L_4 - L_5	1796.42	-----	-246	-141	-1256	-1476	-14	-62	-232	-108	0.837	0.155	1.00	Yes	0.554	0.092	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.78**
		L_5 - L_6	1934.22	-----	-125	-297	-756	-1767	128	-17	-116	-130	0.830	0.165	1.00	Yes	0.557	0.100	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		L_6 - L_7	1945.42	-----	-377	-24	-1701	-1857	-175	42	-95	198	0.823	0.175	1.00	Yes	0.547	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.80**
		L_7 - L_8	1388.50	-54.31	-186	342	-1563	-495	-128	7	-171	-296	0.796	0.197	1.00	Yes	0.523	0.116	0.64	Yes	0.037	0.190	0.23	Yes	0.037	0.173	0.21	Yes	1.00	**2.24**
		L_8 - L_9	1133.78	-383.36	-36	579	-1095	189	-22	18	-176	538	0.793	0.198	1.00	Yes	0.534	0.125	0.66	Yes	0.318	0.110	0.43	Yes	0.315	0.148	0.47	Yes	1.00	**2.70**
		L_9 - L_{10}	758.65	-756.37	-56	822	-1274	139	33	106	89	-308	0.677	0.241	0.92	Yes	0.394	0.149	0.55	Yes	0.800	0.150	0.95	Yes	0.794	0.204	1.00	Yes	1.00	**3.27**
		L_{10} - L_{11}	30.39	-726.88	115	533	-808	541	63	1	-369	120	0.030	0.191	0.23	Yes	0.018	0.119	0.14	Yes	0.859	0.068	0.93	Yes	0.854	0.141	1.00	Yes	1.00	**2.26**
		L_{11} - L_{12}	-----	-1049.33	102	1023	-758	748	82	213	52	135	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.124	1.00	Yes	0.860	0.139	1.00	Yes	1.00	**2.77**
		L_{12} - L_{13}	-----	-1451.38	344	-598	-1030	-254	172	-121	-38	-49	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.116	1.00	Yes	0.868	0.102	0.98	Yes	1.00	**3.76**
		L_{13} - L_{14}	-----	-1512.39	-341	1325	-846	2679	-233	-459	-84	-284	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.186	0.96	Yes	0.761	0.234	1.00	Yes	1.00	**1.64**
		L_{14} - L_{15}	-----	-1523.45	2630	-944	1178	-474	-342	-187	-540	-376	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.183	0.96	Yes	0.767	0.230	1.00	Yes	1.00	**1.65**
		L_{15} - L_{16}	-----	-1418.24	-125	-31	-1439	277	-464	-400	127	540	-----	-----	-----	-----	-----	-----	-----	-----	0.855	0.137	1.00	Yes	0.848	0.143	1.00	Yes	1.00	**3.81**
		L_{16} - L_{17}	-----	-1129.62	1382	-182	670	-46	115	-91	132	-52	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.138	0.97	Yes	0.823	0.170	1.00	Yes	1.00	**1.80**
		L_{17} - L_{18}	-----	-837.79	711	-285	319	141	-15	-110	-120	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.886	0.082	0.97	Yes	0.880	0.114	1.00	Yes	1.00	**2.01**
		L_{18} - L_{19}	-----	-653.29	643	198	253	-116	-8	32	20	121	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.121	1.00	Yes	0.871	0.124	1.00	Yes	1.00	**2.60**
		L_{19} - L_{20}	228.29	-666.64	545	347	218	-526	40	-24	150	-72	0.259	0.128	0.39	Yes	0.153	0.081	0.24	Yes	0.894	0.101	1.00	Yes	0.888	0.105	1.00	Yes	1.00	**3.36**
		L_{20} - L_{21}	775.40	-909.71	804	385	-440	-945	-125	-118	-40	69	0.618	0.151	0.77	Yes	0.406	0.090	0.50	Yes	0.859	0.118	0.98	Yes	0.853	0.138	1.00	Yes	1.00	**5.73**
		L_{21} - L_{22}	928.95	-807.61	483	604	-633	-1605	-105	-13	103	-143	0.741	0.250	1.00	Yes	0.495	0.156	0.66	Yes	0.763	0.213	0.98	Yes	0.758	0.234	1.00	Yes	1.00	**5.44**
		L_{22} - L_{23}	859.57	-369.99	232	275	-1969	-403	36	-22	-250	189	0.685	0.314	1.00	Yes	0.458	0.197	0.66	Yes	0.350	0.254	0.61	Yes	0.347	0.287	0.64	Yes	1.00	**3.14**
		L_{23} - L_{24}	993.38	-695.70	313	556	-1198	-648	41	121	296	-89	0.792	0.207	1.00	Yes	0.519	0.124	0.65	Yes	0.657	0.197	0.86	Yes	0.653	0.175	0.83	Yes	1.00	**5.14**
		L_{24} - L_{25}	292.90	-596.11	484	357	-1020	174	151	-68	-451	357	0.332	0.266	0.60	Yes	0.196	0.168	0.37	Yes	0.799	0.124	0.93	Yes	0.794	0.197	1.00	Yes	1.00	**4.52**
		L_{25} - L_{26}	-----	-629.69	265	621	-794	531	76	201	-20	-312	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.150	1.00	Yes	0.839	0.153	1.00	Yes	1.00	**4.24**
		L_{26} - L_{27}	-----	-846.18	239	223	-453	656	184	56	-208	133	-----	-----	-----	-----	-----	-----	-----	-----	0.895	0.073	0.97	Yes	0.889	0.105	1.00	Yes	1.00	**2.41**
		L_{27} - L_{28}	-----	-1171.33	126	696	-515	1133	237	442	-44	-199	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.125	0.99	Yes	0.853	0.140	1.00	Yes	1.00	**3.18**
		L_{28} - L_{29}	-----	-1481.97	239	-1022	-430	-404	458	-123	-246	126	-----	-----	-----	-----	-----	-----	-----	-----	0.894	0.099	1.00	Yes	0.886	0.102	0.99	Yes	1.00	**4.46**
		L_{29} - L_{30}	-----	-1527.53	-321	1037	-886	2560	-191	-419	-72	-187	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.170	0.95	Yes	0.769	0.224	1.00	Yes	1.00	**1.80**
		L_{30} - L_{31}	-----	-1465.68	2904	-1025	963	-349	-203	-86	-214	-155	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.180	0.93	Yes	0.738	0.254	1.00	Yes	1.00	**2.18**
		L_{31} - L_{32}	-----	-1436.68	96	-629	-1348	338	-428	51	222	-51	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.133	1.00	Yes	0.859	0.134	1.00	Yes	1.00	**5.39**
		L_{32} - L_{33}	72.44	-1008.19	1255	-510	284	-338	49	-110	145	59	0.050	0.185	0.24	Yes	0.034	0.109	0.15	Yes	0.833	0.112	0.95	Yes	0.827	0.171	1.00	Yes	1.00	**2.67**
		L_{33} - L_{34}	-----	-764.38	548	-516	192	-189	43	-286	25	2	-----	-----	-----	-----	-----	-----	-----	-----	0.904	0.045	0.95	Yes	0.898	0.096	1.00	Yes	1.00	**4.16**
		L_{34} - L_{35}	885.35	-825.11	794	125	-209	-641	-30	45	-3	349	0.790	0.169	0.96	Yes	0.460	0.104	0.57	Yes	0.872	0.127	1.00	Yes	0.866	0.127	1.00	Yes	1.00	**4.50**
		L_{35} - L_{36}	1200.71	-630.60	573	188	37	-903	85	-84	318	-193	0.840	0.152	1.00	Yes	0.566	0.095	0.67	Yes	0.523	0.099	0.63	Yes	0.519	0.122	0.65	Yes	1.00	**4.61**
		L_{36} - L_{37}	1498.05	-411.65	563	232	-720	-784	-120	-33	-592	371	0.859	0.135	1.00	Yes	0.564	0.082	0.65	Yes	0.280	0.118	0.40	Yes	0.278	0.087	0.37	Yes	1.00	**4.39**
		L_{37} - L_{38}	1914.46	-----	186	-300	-1759	-1880	7	-41	-93	-337	0.810	0.186	1.00	Yes	0.539	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.10**
		L_{38} - L_{39}	1874.70	-----	-167	-140	-1818	-1010	-49	1	-115	457	0.804	0.190	1.00	Yes	0.540	0.117	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.32**
		L_{39} - L_{40}	1766.75	-----	-69	-386	-1419	-1027	-14	-26	23	-535	0.824	0.170	1.00	Yes	0.545	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.70**
		L_{40} - L_{41}	1330.39	-----	-247	-70	-1410	-87	-36	-20	-589	145	0.782	0.212	1.00	Yes	0.526	0.133	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.85**
		L_{41} - L_{42}	1012.74	-----	-44	-193	-1218	221	-36	-67	-112	-191	0.798	0.196	1.00	Yes	0.523	0.117	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.27**
		L_{42} - L_{43}	393.09	-----	-57	-112	-1945	642	-123	-152	-551	726	0.477	0.515	1.00	Yes	0.284	0.328	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.97**
		L_{43} - L_{44}	219.51	-474.00	-61	-17	-1569	541	-155	-45	644	188	0.267	0.425	0.70	Yes	0.159	0.270	0.43	Yes	0.682	0.269	0.96	Yes	0.677	0.319	1.00	Yes	1.00	**6.88**
	Structure 3	L_0 - L_1	140.25	-406.73	599	-877	8	-103	33	152	-7	-34	0.215	0.295	0.51	Yes	0.131	0.199	0.33	Yes	0.739	0.150	0.89	Yes	0.732	0.263	1.00	Yes	1.00	**5.93**
		L_1 - L_2	290.06	-----	1039	-1728	77	-121	112	175	-65	3	0.444	0.555	1.00	Yes	0.300	0.344	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.04**
		L_2 - L_3	929.37	-----	220	-825	-55	-357	107	100	198	230	0.809	0.188	1.00	Yes	0.518	0.113	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.89**
		L_3 - L_4	1284.80	-----	117	-1172	22	-368	41	6	102	57	0.812	0.181	1.00	Yes	0.527	0.111	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		L_4 - L_5	1764.23	-----	-312	-203	-973	-922	71	99	-129	-162	0.862	0.129	1.00	Yes	0.553	0.075	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.18**
		L_5 - L_6	1557.61	-----	-73	-418	-296	-1895	81	81	-97	-139	0.761	0.238	1.00	Yes	0.495	0.144	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.97**
		L_6 - L_7	1291.97	-----	-402	242	-1589	97	-185	20	-248	215	0.760	0.240	1.00	Yes	0.492	0.147	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.59**
		L_7 - L_8	1116.52	-----	-67	151	-533	-311	-24	44	169	4	0.881	0.114	1.00	Yes	0.564	0.068	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		L_8 - L_9	537.48	-234.42	-132	398	-893	341	-3	45	-322	375	0.696	0.302	1.00	Yes	0.418	0.196	0.62	Yes	0.360	0.132	0.50	Yes	0.357	0.236	0.60	Yes	1.00	**3.38**
		L_9 - L_{10}	-----	-530.04	5	499	-692	324	78	149	127	102	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.104	0.92	Yes	0.808	0.183	1.00	Yes	1.00	**3.73**
		L_{10} - L_{11}	-----	-1079.30	195	72	-783	714	148	-210	-211	84	-----	-----	-----	-----	-----	-----	-----	-----	0.878	0.049	0.93	Yes	0.869	0.123	1.00	Yes	1.00	**5.24**
		L_{11} - L_{12}	-----	-1257.79	5	866	-144	1222	-186	-160	-305	-571	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.191	1.00	Yes	0.797	0.162	0.96	Yes	1.00	**2.76**
		L_{12} - L_{13}	-----	-1244.34	1309	-61	470	-23	-452	-279	-239	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.200	1.00	Yes	0.788	0.173	0.97	Yes	1.00	**1.93**
		L_{13} - L_{14}	-----	-1164.58	303	-241	-134	296	-285	-103	-127	200	-----	-----	-----	-----	-----	-----	-----	-----	0.948	0.050	1.00	Yes	0.937	0.048	0.99	Yes	1.00	**3.14**
		L_{14} - L_{15}	-----	-730.98	680	-10	254	-25	169	-77	110	6	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.132	0.99	Yes	0.843	0.150	1.00	Yes	1.00	**2.36**
		L_{15} - L_{16}	-----	-492.26	941	-868	247	7	26	-335	-61	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.757	0.190	0.95	Yes	0.750	0.249	1.00	Yes	1.00	**5.06**
		L_{16} - L_{17}	696.79	-396.88	474	75	-701	-422	113	-69	23	180	0.802	0.198	1.00	Yes	0.476	0.128	0.61	Yes	0.542	0.149	0.70	Yes	0.537	0.169	0.71	Yes	1.00	**3.09**
		L_{17} - L_{18}	707.47	-268.30	204	51	-620	-593	-3	18	174	-89	0.814	0.178	1.00	Yes	0.471	0.106	0.58	Yes	0.367	0.203	0.57	Yes	0.363	0.150	0.52	Yes	1.00	**3.49**
		L_{18} - L_{19}	427.00	-104.79	170	-41	-812	85	68	-174	-281	465	0.653	0.344	1.00	Yes	0.399	0.227	0.63	Yes	0.190	0.182	0.38	Yes	0.189	0.244	0.44	Yes	1.00	**3.81**
		L_{19} - L_{20}	44.96	-296.66	202	-323	-1274	744	22	6	1128	307	0.069	0.624	0.70	Yes	0.041	0.376	0.42	Yes	0.539	0.452	1.00	Yes	0.534	0.382	0.92	Yes	1.00	**14.33**

Moment (Start) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

				Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
						Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
		Vehicle	Pedestrian	Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
				(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Verticals	Structure 1	$U_0 - L_0$		-----	-312.57	-38	66	-197	260	-76	-24	54	17	-----	-----	-----	-----	-----	-----	-----	-----	0.698	0.144	0.85	Yes	0.651	0.333	1.00	Yes	1.00	**1.91**
		$U_1 - L_1$		60.62	-336.67	53	-42	-201	223	-13	-26	-82	6	0.109	0.309	0.42	Yes	0.060	0.170	0.23	Yes	0.736	0.102	0.84	Yes	0.712	0.285	1.00	Yes	1.00	**3.13**
		$U_2 - L_2$		158.78	-305.98	136	-152	-219	272	142	42	59	63	0.286	0.389	0.68	Yes	0.157	0.214	0.38	Yes	0.669	0.142	0.82	Yes	0.647	0.348	1.00	Yes	1.00	**4.64**
		$U_3 - L_3$		285.70	-264.16	224	-263	-256	297	343	102	202	141	0.514	0.479	1.00	Yes	0.283	0.264	0.55	Yes	0.579	0.182	0.77	Yes	0.559	0.380	0.94	Yes	1.00	**7.34**
		$U_4 - L_4$		-----	-352.11	193	-194	65	-64	474	167	-5	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.182	0.96	Yes	0.745	0.248	1.00	Yes	1.00	**3.02**
		$U_5 - L_5$		-----	-419.15	239	-264	75	-91	97	62	-59	-54	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.108	0.87	Yes	0.723	0.268	1.00	Yes	1.00	**1.95**
		$U_6 - L_6$		-----	-502.74	229	-238	86	-79	890	276	-214	-36	-----	-----	-----	-----	-----	-----	-----	-----	0.761	0.235	1.00	Yes	0.721	0.208	0.93	Yes	1.00	**1.80**
		$U_7 - L_7$		-----	-432.92	306	-333	133	-150	208	71	-147	39	-----	-----	-----	-----	-----	-----	-----	-----	0.724	0.140	0.87	Yes	0.668	0.327	1.00	Yes	1.00	**1.53**
		$U_8 - L_8$		-----	-1196.16	403	-496	-337	394	1087	332	-969	-290	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.129	1.00	Yes	0.829	0.092	0.93	Yes	1.00	**3.66**
		$U_9 - L_9$		-----	-649.22	-175	207	-411	472	-245	-97	-230	-174	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.127	0.91	Yes	0.733	0.262	1.00	Yes	1.00	**2.10**
		$U_{10} - L_{10}$		-----	-776.18	-124	104	-353	331	-745	-405	-571	-467	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.191	1.00	Yes	0.766	0.183	0.95	Yes	1.00	**2.63**
		$U_{11} - L_{11}$		-----	-661.26	-144	204	-385	487	-312	-241	-376	-370	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.145	0.94	Yes	0.770	0.226	1.00	Yes	1.00	**2.38**
		$U_{12} - L_{12}$		-----	-531.84	-125	122	-310	315	-117	-112	-107	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.116	0.89	Yes	0.730	0.269	1.00	Yes	1.00	**2.19**
		$U_{13} - L_{13}$		-----	-366.87	-79	99	-232	259	-44	4	-1	-6	-----	-----	-----	-----	-----	-----	-----	-----	0.742	0.098	0.84	Yes	0.703	0.296	1.00	Yes	1.00	**1.75**
		$U_{14} - L_{14}$		-----	-366.78	-44	52	-137	158	-36	-16	449	67	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.175	1.00	Yes	0.776	0.202	0.98	Yes	1.00	**3.47**
		$U_{15} - L_{15}$		88.85	-292.64	269	-291	-63	60	282	201	-66	-48	0.160	0.453	0.62	Yes	0.088	0.249	0.34	Yes	0.656	0.217	0.88	Yes	0.619	0.371	1.00	Yes	1.00	**4.30**
		$U_{16} - L_{16}$		-----	-305.54	213	-226	24	-27	1091	-54	-80	-100	-----	-----	-----	-----	-----	-----	-----	-----	0.689	0.304	1.00	Yes	0.646	0.288	0.94	Yes	1.00	**2.25**
		$U_{17} - L_{17}$		-----	-435.49	221	-242	56	-71	201	-146	-120	-108	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.111	0.93	Yes	0.751	0.246	1.00	Yes	1.00	**1.84**
		$U_{18} - L_{18}$		-----	-535.90	419	-438	137	-144	214	-204	-130	-114	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.090	0.88	Yes	0.745	0.248	1.00	Yes	1.00	**2.01**
		$U_{19} - L_{19}$		-----	-634.43	558	-535	163	-162	254	-56	-111	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.116	0.91	Yes	0.738	0.259	1.00	Yes	1.00	**2.31**
		$U_{20} - L_{20}$		-----	-583.09	280	-474	158	-257	595	78	25	3	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.227	1.00	Yes	0.679	0.220	0.90	Yes	1.00	**1.60**
	Structure 2	$U_0 - L_0$		-----	-693.32	-143	187	-487	598	-78	-13	36	6	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.118	0.95	Yes	0.743	0.254	1.00	Yes	1.00	**2.45**
		$U_1 - L_1$		-----	-726.32	-94	102	-479	511	-120	-27	-100	24	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.077	0.91	Yes	0.778	0.217	1.00	Yes	1.00	**2.87**
		$U_2 - L_2$		-----	-593.61	-82	92	-458	476	-95	-45	-8	0	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.079	0.88	Yes	0.756	0.243	1.00	Yes	1.00	**2.51**
		$U_3 - L_3$		-----	-493.84	-42	49	-222	240	100	-46	-43	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.079	0.92	Yes	0.774	0.219	1.00	Yes	1.00	**2.16**
		$U_4 - L_4$		-----	-342.47	4	4	-203	211	285	85	-84	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.162	0.94	Yes	0.725	0.269	1.00	Yes	1.00	**2.30**
		$U_5 - L_5$		100.68	-332.94	76	-71	-195	225	314	189	-47	-34	0.181	0.379	0.56	Yes	0.100	0.208	0.31	Yes	0.752	0.210	0.97	Yes	0.704	0.288	1.00	Yes	1.00	**3.21**
		$U_6 - L_6$		270.21	-282.66	172	-192	-299	312	362	253	164	-38	0.486	0.504	0.99	Yes	0.267	0.277	0.55	Yes	0.636	0.245	0.89	Yes	0.598	0.399	1.00	Yes	1.00	**6.71**
		$U_7 - L_7$		-----	-268.96	279	-323	52	-59	1005	200	37	6	-----	-----	-----	-----	-----	-----	-----	-----	0.608	0.392	1.00	Yes	0.569	0.413	0.99	Yes	1.00	**9.25**
		$U_8 - L_8$		-----	-457.18	371	-389	115	-127	127	-57	-62	-112	-----	-----	-----	-----	-----	-----	-----	-----	0.663	0.112	0.78	Yes	0.659	0.340	1.00	Yes	1.00	**2.73**
		$U_9 - L_9$		-----	-697.46	549	-584	199	-199	1383	171	-105	-119	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.201	0.98	Yes	0.747	0.248	1.00	Yes	1.00	**2.82**
		$U_{10} - L_{10}$		-----	-786.21	547	-582	180	-185	336	-171	-130	-93	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.100	0.88	Yes	0.735	0.257	1.00	Yes	1.00	**2.79**
		$U_{11} - L_{11}$		-----	-812.14	510	-531	183	-184	140	-174	-158	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.098	0.92	Yes	0.759	0.234	1.00	Yes	1.00	**2.40**
		$U_{12} - L_{12}$		-----	-884.57	518	-531	145	-115	235	-44	-127	32	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.106	0.96	Yes	0.767	0.228	1.00	Yes	1.00	**2.45**
		$U_{13} - L_{13}$		-----	-678.21	546	-540	215	-219	791	99	-137	8	-----	-----	-----	-----	-----	-----	-----	-----	0.756	0.239	1.00	Yes	0.654	0.261	0.92	Yes	1.00	**1.85**
		$U_{14} - L_{14}$		-----	-1107.69	654	-625	-306	282	1036	655	-637	-21	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.182	1.00	Yes	0.735	0.116	0.86	Yes	1.00	**3.22**
		$U_{15} - L_{15}$		-----	-696.85	-77	89	-666	661	-314	34	-34	60	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.162	0.94	Yes	0.672	0.319	1.00	Yes	1.00	**3.33**
		$U_{16} - L_{16}$		-----	-701.14	-61	33	-463	413	-819	-248	-602	-241	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.183	1.00	Yes	0.751	0.197	0.95	Yes	1.00	**2.39**
		$U_{17} - L_{17}$		-----	-639.90	-118	108	-542	532	-483	-306	-298	-302	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.156	0.95	Yes	0.745	0.252	1.00	Yes	1.00	**2.14**
		$U_{18} - L_{18}$		-----	-604.70	-112	100	-411	436	-273	-245	68	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.118	0.93	Yes	0.771	0.223	1.00	Yes	1.00	**1.92**
		$U_{19} - L_{19}$		-----	-477.94	-73	71	-286	289	-244	-148	-123	-150	-----	-----	-----	-----	-----	-----	-----	-----	0.719	0.120	0.84	Yes	0.714	0.278	1.00	Yes	1.00	**2.34**
		$U_{20} - L_{20}$		-----	-382.27	-42	40	-214	226	-201	-95	-20	-99	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.130	0.92	Yes	0.732	0.258	1.00	Yes	1.00	**2.41**
		$U_{21} - L_{21}$		-----	-315.90	-29	30	-240	257	-84	-16	44	3	-----	-----	-----	-----	-----	-----	-----	-----	0.714	0.116	0.83	Yes	0.668	0.328	1.00	Yes	1.00	**2.75**
		$U_{22} - L_{22}$		-----	-286.60	130	-146	-170	199	1051	299	948	268	-----	-----	-----	-----	-----	-----	-----	-----	0.645	0.355	1.00	Yes	0.606	0.255	0.87	Yes	1.00	**10.44**
		$U_{23} - L_{23}$		-----	-302.82	260	-274	14	-15	234	158	-100	-4	-----	-----	-----	-----	-----	-----	-----	-----	0.684	0.173	0.86	Yes	0.641	0.351	1.00	Yes	1.00	**3.39**
		$U_{24} - L_{24}$		-----	-340.40	198	-215	43	-48	1003	95	-70	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.698	0.300	1.00	Yes	0.652	0.246	0.90	Yes	1.00	**2.06**
		$U_{25} - L_{25}$		-----	-469.49	309	-305	53	-49	383	-30	-92	10	-----	-----	-----	-----	-----	-----	-----	-----	0.706	0.120	0.83	Yes	0.701	0.297	1.00	Yes	1.00	**2.24**
		$U_{26} - L_{26}$		-----	-565.81	499	-527	72	-63	425	-40	-149	39	-----	-----	-----	-----	-----	-----	-----	-----	0.754	0.114	0.87	Yes	0.721	0.270	1.00	Yes	1.00	**2.41**
		$U_{27} - L_{27}$		-----	-629.98	561	-564	81	-79	250	156	-186	53	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.094	0.88	Yes	0.733	0.262	1.00	Yes	1.00	**2.17**
		$U_{28} - L_{28}$		-----	-683.97	477	-455	55	-34	1117	158	-230	74	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.207	1.00	Yes	0.733	0.202	0.94	Yes	1.00	**2.13**
		$U_{29} - L_{29}$		-----	-695.54	665	-653	100	-111	485	103	-173	37	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.219	1.00	Yes	0.671	0.318	0.99	Yes	1.00	**2.82**
		$U_{30} - L_{30}$		-----	-1174.20	736	-728	-727	660	1429	118	-1038	225	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.135	1.00	Yes	0.779	0.130	0.91	Yes	1.00	**5.11**
		$U_{31} - L_{31}$		-----	-741.10	-97	97	-581	576	-313	-19	-48	35	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.163	0.99	Yes	0.715	0.278	1.00	Yes	1.00	**2.93**
		$U_{32} - L_{32}$		-----	-844.16	-78	52	-437	395	-688	-264	-476	-236	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.190	1.00	Yes	0.732	0.187	0.92	Yes	1.00	**2.61**
		$U_{33} - L_{33}$		-----	-846.94	-119	105	-416	433	-436	-348	-28	-273	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.146	1.00	Yes	0.792	0.191	0.99	Yes	1.00	**2.58**
		$U_{34} - L_{34}$		-----	-810.99	-123	120	-507	543	-197	-248	-221	-390	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.127	0.93	Yes	0.758	0.240	1.00	Yes	1.00	**3.42**
		$U_{35} - L_{35}$		-----	-707.14	-144	147	-517	556	83	38	-31	-102	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.074	0.87	Yes	0.758	0.236	1.00	Yes	1.00	**3.13**
		$U_{36} - L_{36}$		-----	-472.52	-82	92	-338	356	89	71	105	35	-----	-----	-----	-----	-----	-----	-----	-----	0.685	0.101	0.79	Yes	0.681	0.312	1.00	Yes	1.00	**2.58**
		$U_{37} - L_{37}$		-----	-259.33	-42	50	-296	350	75	31	660	159	-----	-----	-----	-----	-----	-----	-----	-----	0.586	0.327	0.92	Yes	0.549	0.447	1.00	Yes	1.00	**8.87**
		$U_{38} - L_{38}$		300.50	-177.53	258	-255	-230	254	432	374	219	118	0.540	0.454	1.00	Yes	0.297	0.250	0.55	Yes	0.400	0.190	0.59	Yes	0.376	0.329	0.71	Yes	1.00	**8.38**
		$U_{39} - L_{39}$		94.09	-278.56	158	-185	-82	80	1247	52	61	0	0.169	0.597	0.77	Yes	0.093	0.328	0.43	Yes	0.629	0.366	1.00	Yes	0.589	0.236	0.83	Yes	1.00	**2.99**
		$U_{40} - L_{40}$		33.33	-339.02	214	-217	-30	23	304	-81	13	-22	0.060	0.366	0.43	Yes	0.033	0.201	0.24	Yes	0.769	0.122	0.90	Yes	0.717	0.278	1.00	Yes	1.00	**2.41**
		$U_{41} - L_{41}$		-----	-485.23	238	-252	12	-16	204	-121	10	-20	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.085	0.92	Yes	0.761	0.230	1.00	Yes	1.00	**2.22**
		$U_{42} - L_{42}$		-----	-583.20	469	-484	35	-44	267	-167	11	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.076	0.86	Yes	0.743	0.248	1.00	Yes	1.00	**2.39**
		$U_{43} - L_{43}$		-----	-696.83	574	-571	53	-67	331	90	-58	-57	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.105	0.91	Yes	0.747	0.243	1.00	Yes	1.00	**2.63**
		$U_{44} - L_{44}$		-----	-636.29	283	-455	109	-121	935	159	-161	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.231	1.00	Yes	0.682	0.193	0.88	Yes	1.00	**1.99**
	Structure 3	$U_0 - L_0$		-----	-636.58	-134	180	-484	556	-59	-8	231	30	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.153	1.00	Yes	0.741	0.258	1.00	Yes	1.00	**2.74**
		$U_1 - L_1$		-----	-669.73	-104	116	-450	475	-119	-3	-19	129	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.081	0.92	Yes	0.779	0.220	1.00	Yes	1.00	**3.14**
		$U_2 - L_2$		-----	-543.67	-102	108	-405	423	-142	-43	21	26	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.088	0.89	Yes	0.756	0.240	1.00	Yes	1.00	**2.61**
		$U_3 - L_3$		-----	-447.92	-41	54	-196	218	50	-62	1	-21	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.083	0.93	Yes	0.773	0.222	1.00	Yes	1.00	**2.22**
		$U_4 - L_4$		-----	-329.56	-11	17	-218	232	232	50	-41	14	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.147	0.89	Yes	0.697	0.297	1.00	Yes	1.00	**2.68**
		$U_5 - L_5$		60.66	-309.61	47	-45	-248	269	230	155	-5	18	0.109	0.411	0.52	Yes	0.060	0.226	0.29	Yes	0.694	0.186	0.88	Yes	0.655	0.344	1.00	Yes	1.00	**3.53**
		$U_6 - L_6$		-----	-283.77	88	-94	36	-38	382	61	1158	391	-----	-----	-----	-----	-----	-----	-----	-----	0.633	0.360	1.00	Yes	0.600	0.120	0.73	Yes	1.00	**2.58**
		$U_7 - L_7$		-----	-360.67	247	-268	69	-82	87	-19	-8	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.729	0.107	0.84	Yes	0.691	0.306	1.00	Yes	1.00	**2.14**
		$U_8 - L_8$		-----	-511.60	308	-317	111	-108	1120	217	-61	-120	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.256	1.00	Yes	0.702	0.271	0.98	Yes	1.00	**2.21**
		$U_9 - L_9$		-----	-649.89	415	-511	129	-171	238	-72	-110	-122	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.120	0.90	Yes	0.756	0.237	1.00	Yes	1.00	**2.41**
		$U_{10} - L_{10}$		-----	-795.85	389	-400	118	-115	382	84	-198	-93	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.128	0.96	Yes	0.785	0.208	1.00	Yes	1.00	**2.66**
		$U_{11} - L_{11}$		-----	-643.79	429	-488	168	-193	361	135	-111	-11	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.147	0.92	Yes	0.727	0.271	1.00	Yes	1.00	**1.95**
		$U_{12} - L_{12}$		-----	-1146.66	439	-577	-251	265	1131	524	-674	-107	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.163	1.00	Yes	0.795	0.107	0.91	Yes	1.00	**3.47**
		$U_{13} - L_{13}$		-----	-443.44	-70	81	-292	315	-209	-1	-28	45	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.144	0.89	Yes	0.684	0.310	1.00	Yes	1.00	**2.30**
		$U_{14} - L_{14}$		-----	-519.08	-47	28	-222	212	-679	-310	-496	-261	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.208	1.00	Yes	0.744	0.194	0.94	Yes	1.00	**2.47**
		$U_{15} - L_{15}$		-----	-437.78	-48	52	-227	238	-243	-173	-311	-269	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.155	0.95	Yes	0.755	0.242	1.00	Yes	1.00	**2.23**
		$U_{16} - L_{16}$		-----	-352.71	-52	52	-191	198	-114	-96	174	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.122	0.90	Yes	0.746	0.252	1.00	Yes	1.00	**3.08**
		$U_{17} - L_{17}$		309.14	-212.27	203	-222	-269	310	-46	139	-26	99	0.556	0.437	1.00	Yes	0.306	0.240	0.55	Yes	0.465	0.131	0.60	Yes	0.449	0.396	0.85	Yes	1.00	**7.89**
		$U_{18} - L_{18}$		142.30	-248.74	152	-197	-130	146	1606	371	-149	21	0.256	0.717	0.98	Yes	0.141	0.394	0.54	Yes	0.544	0.450	1.00	Yes	0.526	0.252	0.78	Yes	1.00	**3.44**
		$U_{19} - L_{19}$		84.53	-313.65	261	-243	-87	72	254	52	-91	20	0.152	0.407	0.56	Yes	0.084	0.224	0.31	Yes	0.685	0.144	0.83	Yes	0.664	0.334	1.00	Yes	1.00	**2.76**
		$U_{20} - L_{20}$		68.92	-235.68	183	-200	-39	42	1370	439	-229	-74	0.124	0.652	0.78	Yes	0.075	0.359	0.44	Yes	0.526	0.469	1.00	Yes	0.499	0.256	0.76	Yes	1.00	**6.16**

Moment (Start) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

				Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
						Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
				Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
				(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Diagonals	Structure 1	U_0 - L_1		625.93	-70.97	-4	-11	-125	72	18	48	-36	-93	0.821	0.169	1.00	Yes	0.496	0.093	0.59	Yes	0.121	0.096	0.22	Yes	0.110	0.146	0.26	Yes	1.00	**3.53**
		U_1 - L_2		461.77	-168.60	31	-25	-90	9	34	20	-163	-120	0.831	0.162	1.00	Yes	0.457	0.089	0.55	Yes	0.387	0.149	0.54	Yes	0.357	0.115	0.48	Yes	1.00	**3.83**
		U_2 - L_3		367.34	-334.53	69	-35	-138	1	75	56	-115	-125	0.661	0.213	0.88	Yes	0.363	0.117	0.49	Yes	0.770	0.222	1.00	Yes	0.708	0.177	0.89	Yes	1.00	**5.70**
		U_3 - L_4		-----	-322.27	55	-6	-70	-113	125	127	-154	-377	-----	-----	-----	-----	-----	-----	-----	-----	0.737	0.259	1.00	Yes	0.682	0.144	0.83	Yes	1.00	**4.21**
		U_4 - L_5		537.24	-----	-7	67	-106	0	48	4	-420	-369	0.788	0.205	1.00	Yes	0.433	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.52**
		U_5 - L_6		602.62	-----	-24	162	-187	211	224	96	-893	-324	0.712	0.282	1.00	Yes	0.392	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.28**
		U_6 - L_7		637.08	-----	-72	126	-288	244	409	212	-346	-366	0.753	0.239	1.00	Yes	0.414	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.08**
		U_7 - L_8		609.65	-----	29	163	-90	298	579	244	-237	-143	0.721	0.275	1.00	Yes	0.396	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.10**
		U_8 - L_9		973.73	-----	103	244	-80	375	275	14	230	417	0.778	0.220	1.00	Yes	0.482	0.124	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.60**
		U_9 - L_{10}		988.76	-----	-73	87	-295	278	187	138	388	589	0.790	0.207	1.00	Yes	0.490	0.117	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
		U_{10} - L_{11}		980.73	-----	-48	168	-233	202	138	193	339	454	0.828	0.168	1.00	Yes	0.513	0.095	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.17**
		U_{11} - L_{12}		833.20	-----	-67	55	-269	107	27	135	254	329	0.824	0.174	1.00	Yes	0.453	0.096	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.88**
		U_{12} - L_{13}		643.21	-----	-79	65	-201	171	-34	-17	161	71	0.784	0.207	1.00	Yes	0.493	0.116	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.20**
		U_{13} - L_{14}		458.99	-----	-31	15	-106	30	-108	-86	27	-59	0.826	0.167	1.00	Yes	0.454	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.19**
		U_{15} - L_{14}		229.41	-213.59	39	-55	-124	-90	1	-20	-876	-481	0.413	0.412	0.83	Yes	0.227	0.226	0.46	Yes	0.500	0.490	1.00	Yes	0.452	0.158	0.62	Yes	1.00	**5.57**
		U_{16} - L_{15}		298.00	-12.88	-11	-6	-119	72	-84	-81	-1058	-212	0.536	0.458	1.00	Yes	0.295	0.252	0.55	Yes	0.031	0.328	0.36	Yes	0.027	0.152	0.18	Yes	1.00	**2.50**
		U_{17} - L_{16}		492.32	-----	-32	12	-139	90	-105	-126	-579	-538	0.722	0.276	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.86**
		U_{18} - L_{17}		584.93	-----	-109	73	-303	244	-106	-112	-745	-524	0.692	0.307	1.00	Yes	0.380	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.00**
		U_{19} - L_{18}		640.26	-----	-130	85	-337	248	-61	-101	-754	-531	0.693	0.297	1.00	Yes	0.381	0.163	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.91**
		U_{20} - L_{19}		677.62	-----	-66	70	-392	311	-120	-52	-371	-234	0.734	0.262	1.00	Yes	0.404	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.64**
	Structure 2	U_0 - L_1		800.79	-----	-95	81	-424	391	-54	-30	-22	-70	0.792	0.208	1.00	Yes	0.436	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.01**
		U_1 - L_2		799.89	-----	-72	51	-394	327	-81	-7	-128	-43	0.791	0.202	1.00	Yes	0.435	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.03**
		U_2 - L_3		656.56	-----	-62	46	-347	276	1	111	-21	-17	0.776	0.217	1.00	Yes	0.427	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.56**
		U_3 - L_4		591.91	-----	-24	4	-191	137	134	75	-38	-45	0.789	0.202	1.00	Yes	0.434	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.47**
		U_4 - L_5		429.18	-86.76	17	-25	-149	102	105	-95	-111	-12	0.772	0.222	1.00	Yes	0.425	0.122	0.55	Yes	0.214	0.091	0.31	Yes	0.184	0.190	0.38	Yes	1.00	**2.97**
		U_5 - L_6		426.84	-220.71	67	-65	-139	61	11	-173	-71	3	0.768	0.228	1.00	Yes	0.422	0.125	0.55	Yes	0.521	0.180	0.71	Yes	0.467	0.178	0.65	Yes	1.00	**4.26**
		U_6 - L_7		40.07	-392.24	87	-80	-139	-72	-40	-186	-15	-196	0.065	0.209	0.28	Yes	0.036	0.115	0.16	Yes	0.840	0.160	1.00	Yes	0.751	0.158	0.91	Yes	1.00	**6.03**
		U_8 - L_7		521.01	-----	-58	46	-225	70	-142	-214	-625	-495	0.664	0.329	1.00	Yes	0.418	0.188	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.40**
		U_8 - L_9		612.40	-----	-121	111	-311	196	-32	-73	-1078	-458	0.663	0.337	1.00	Yes	0.365	0.185	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.06**
		U_{10} - L_9		758.73	-----	-87	135	-320	202	26	-38	-615	-667	0.751	0.248	1.00	Yes	0.413	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		U_{11} - L_{10}		826.81	-----	-91	153	-337	266	192	57	-719	-544	0.753	0.241	1.00	Yes	0.414	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.07**
		U_{12} - L_{11}		833.54	-----	-101	167	-355	341	324	156	-634	-453	0.759	0.237	1.00	Yes	0.418	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.04**
		U_{13} - L_{12}		742.54	-----	-143	146	-427	379	374	157	-416	-239	0.735	0.261	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.79**
		U_{14} - L_{13}		721.58	-----	-3	149	-265	416	549	207	-564	-186	0.714	0.277	1.00	Yes	0.393	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.17**
		U_{14} - L_{15}		625.80	-----	109	127	-205	340	320	-176	27	99	0.740	0.251	1.00	Yes	0.407	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		U_{15} - L_{16}		627.89	-----	-30	39	-373	357	-66	-19	208	131	0.742	0.249	1.00	Yes	0.408	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.68**
		U_{16} - L_{17}		703.94	-----	-38	80	-304	372	-218	101	40	242	0.762	0.230	1.00	Yes	0.419	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.18**
		U_{17} - L_{18}		648.20	-----	-48	80	-283	297	-47	176	184	327	0.766	0.227	1.00	Yes	0.421	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.97**
		U_{18} - L_{19}		617.17	-----	-19	85	-302	307	80	78	496	243	0.730	0.264	1.00	Yes	0.401	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.00**
		U_{19} - L_{20}		599.04	-----	-10	45	-207	174	0	39	235	213	0.764	0.233	1.00	Yes	0.420	0.131	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.88**
		U_{20} - L_{21}		436.49	-----	-11	24	-132	112	-24	31	127	49	0.785	0.206	1.00	Yes	0.432	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.68**
		U_{21} - L_{22}		418.80	-6.95	7	9	-159	4	-52	117	119	-12	0.753	0.237	1.00	Yes	0.414	0.130	0.55	Yes	0.016	0.147	0.17	Yes	0.015	0.203	0.22	Yes	1.00	**4.52**
		U_{23} - L_{22}		320.09	-----	10	31	-147	-30	202	134	-791	-446	0.576	0.417	1.00	Yes	0.317	0.230	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.17**
		U_{24} - L_{23}		335.05	-----	-10	28	-110	85	80	36	-885	-169	0.603	0.397	1.00	Yes	0.331	0.218	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.32**
		U_{25} - L_{24}		546.59	-----	-17	65	-192	160	192	89	-602	-593	0.697	0.295	1.00	Yes	0.383	0.168	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.49**
		U_{26} - L_{25}		615.56	-----	-16	83	-269	252	300	155	-621	-422	0.728	0.265	1.00	Yes	0.400	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.48**
		U_{27} - L_{26}		648.96	-----	-37	87	-280	290	369	186	-323	-240	0.767	0.231	1.00	Yes	0.422	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.04**
		U_{28} - L_{27}		649.15	-----	-38	85	-298	354	408	239	-663	-106	0.703	0.290	1.00	Yes	0.387	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.00**
		U_{29} - L_{28}		623.66	-----	-51	61	-362	348	288	149	-154	-254	0.737	0.257	1.00	Yes	0.406	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.21**
		U_{30} - L_{29}		585.04	-----	59	71	-191	329	647	250	-469	-182	0.692	0.303	1.00	Yes	0.380	0.167	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.94**
		U_{30} - L_{31}		737.92	-----	72	154	-285	416	460	6	9	50	0.730	0.262	1.00	Yes	0.402	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.90**
		U_{31} - L_{32}		760.21	-----	-60	69	-440	406	-46	16	252	149	0.752	0.242	1.00	Yes	0.414	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.73**
		U_{32} - L_{33}		870.41	-----	-55	97	-335	361	-183	133	97	327	0.793	0.198	1.00	Yes	0.436	0.109	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.50**
		U_{33} - L_{34}		863.92	-----	-53	97	-357	286	33	244	272	433	0.787	0.211	1.00	Yes	0.433	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.01**
		U_{34} - L_{35}		808.07	-----	-54	89	-327	227	126	140	264	205	0.799	0.191	1.00	Yes	0.440	0.105	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.97**
		U_{35} - L_{36}		736.47	-----	-83	95	-354	244	39	49	127	46	0.798	0.202	1.00	Yes	0.439	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.87**
		U_{36} - L_{37}		600.05	-----	-47	53	-239	109	-48	-48	-16	-72	0.765	0.229	1.00	Yes	0.482	0.127	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.45**
		U_{38} - L_{37}		-----	-302.88	66	-55	-70	-92	-33	50	-638	-337	-----	-----	-----	-----	-----	-----	-----	-----	0.654	0.338	1.00	Yes	0.580	0.105	0.69	Yes	1.00	**4.83**
		U_{38} - L_{39}		249.01	-194.58	59	-56	-94	23	-34	-18	-1414	-249	0.448	0.530	0.98	Yes	0.246	0.291	0.54	Yes	0.464	0.534	1.00	Yes	0.412	0.120	0.54	Yes	1.00	**3.70**
		U_{40} - L_{39}		367.55	-106.21	25	-27	-136	87	-38	-36	-495	-543	0.661	0.331	1.00	Yes	0.364	0.182	0.55	Yes	0.254	0.279	0.54	Yes	0.225	0.174	0.40	Yes	1.00	**2.88**
		U_{41} - L_{40}		531.12	-----	-8	-6	-171	120	-71	-60	-640	-413	0.708	0.290	1.00	Yes	0.389	0.160	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.22**
		U_{42} - L_{41}		586.28	-----	-34	19	-310	251	-47	-46	-685	-478	0.693	0.300	1.00	Yes	0.381	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.25**
		U_{43} - L_{42}		714.93	-----	-50	31	-384	302	12	-31	-734	-540	0.707	0.288	1.00	Yes	0.389	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.41**
		U_{44} - L_{43}		760.32	-----	-23	30	-439	392	-50	19	-189	-268	0.752	0.244	1.00	Yes	0.414	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.11**
	Structure 3	U_0 - L_1		699.89	-----	-108	89	-421	337	-64	-53	28	-133	0.758	0.237	1.00	Yes	0.417	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		U_1 - L_2		732.79	-----	-92	60	-345	271	-127	-45	-176	-75	0.794	0.205	1.00	Yes	0.437	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		U_2 - L_3		663.70	-----	-88	54	-352	270	-47	80	-16	-4	0.785	0.214	1.00	Yes	0.432	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.07**
		U_3 - L_4		555.36	-----	-24	5	-161	111	77	49	3	-30	0.814	0.181	1.00	Yes	0.448	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.70**
		U_4 - L_5		432.24	-49.98	-2	-14	-149	103	52	-106	-94	-53	0.777	0.221	1.00	Yes	0.428	0.121	0.55	Yes	0.118	0.091	0.21	Yes	0.106	0.190	0.30	Yes	1.00	**3.42**
		U_5 - L_6		405.68	-209.79	39	-54	-162	-61	-36	-216	-149	-163	0.730	0.270	1.00	Yes	0.401	0.149	0.55	Yes	0.492	0.315	0.81	Yes	0.444	0.208	0.66	Yes	1.00	**5.87**
		U_7 - L_6		409.87	-----	-26	7	-99	14	-151	-198	-442	-365	0.737	0.255	1.00	Yes	0.405	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.46**
		U_8 - L_7		536.83	-----	-67	52	-182	141	-129	-138	-953	-374	0.654	0.345	1.00	Yes	0.412	0.199	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.08**
		U_9 - L_8		761.34	-----	-62	82	-261	80	-91	-140	-792	-812	0.753	0.242	1.00	Yes	0.414	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.57**
		U_{10} - L_9		918.38	-----	-44	132	-242	174	90	-3	-826	-693	0.776	0.220	1.00	Yes	0.480	0.126	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.85**
		U_{11} - L_{10}		959.25	-----	-74	126	-298	261	364	204	-756	-558	0.767	0.229	1.00	Yes	0.475	0.130	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.77**
		U_{12} - L_{11}		935.11	-----	55	175	-90	359	670	282	-574	-333	0.748	0.246	1.00	Yes	0.463	0.139	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.84**
		U_{12} - L_{13}		667.97	-----	87	177	-105	312	66	-152	3	130	0.790	0.205	1.00	Yes	0.434	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		U_{13} - L_{14}		652.80	-----	-16	67	-301	266	-22	22	13	278	0.772	0.222	1.00	Yes	0.424	0.122	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.37**
		U_{14} - L_{15}		695.03	-----	14	161	-196	227	-20	124	102	241	0.822	0.173	1.00	Yes	0.452	0.095	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.30**
		U_{15} - L_{16}		566.36	-----	7	78	-112	9	129	212	45	150	0.831	0.163	1.00	Yes	0.457	0.090	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.95**
		U_{17} - L_{16}		-----	-320.42	61	1	-56	-100	232	201	-383	-169	-----	-----	-----	-----	-----	-----	-----	-----	0.733	0.264	1.00	Yes	0.678	0.128	0.81	Yes	1.00	**4.13**
		U_{18} - L_{17}		146.68	-257.45	55	-29	-80	-12	273	182	-1075	-214	0.264	0.414	0.68	Yes	0.145	0.227	0.38	Yes	0.593	0.401	1.00	Yes	0.545	0.102	0.65	Yes	1.00	**3.59**
		U_{19} - L_{18}		382.62	-183.86	36	-24	-102	21	249	194	-615	-559	0.688	0.309	1.00	Yes	0.378	0.170	0.55	Yes	0.422	0.318	0.74	Yes	0.389	0.131	0.52	Yes	1.00	**2.92**
		U_{20} - L_{19}		564.12	-----	24	22	-48	22	-776	-454	-219	-209	0.740	0.252	1.00	Yes	0.447	0.139	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.99**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

				Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
						Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
				Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
				(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Upper Chord	Structure 1	$U_0 - U_1$	-----	-561.60	120	-653	-350	-552	300	-369	292	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.227	1	Yes	0.757	0.155	0.92	Yes	1.00	**5.87**
		$U_1 - U_2$	87.30	-576.81	-31	99	-210	-632	-48	-232	258	-166	0.100	0.194	0.30	Yes	0.069	0.133	0.21	Yes	0.785	0.208	1	Yes	0.778	0.150	0.93	Yes	1.00	**3.68**
		$U_2 - U_3$	284.70	-645.79	-40	392	-539	-212	-59	-89	266	-264	0.326	0.173	0.50	Yes	0.220	0.113	0.34	Yes	0.879	0.117	1	Yes	0.871	0.128	1.00	Yes	1.00	**3.98**
		$U_3 - U_4$	369.47	-549.91	123	296	-321	-761	-116	-96	20	-171	0.423	0.210	0.64	Yes	0.291	0.144	0.44	Yes	0.748	0.244	1	Yes	0.742	0.181	0.93	Yes	1.00	**3.20**
		$U_4 - U_5$	382.48	-560.92	139	295	-1004	-106	-216	-20	-87	-96	0.438	0.275	0.72	Yes	0.301	0.189	0.49	Yes	0.763	0.230	1	Yes	0.756	0.239	1.00	Yes	1.00	**3.29**
		$U_5 - U_6$	681.44	-330.68	285	432	-354	142	-387	-11	-9	-661	0.781	0.214	1.00	Yes	0.527	0.142	0.67	Yes	0.450	0.209	0.66	Yes	0.446	0.103	0.55	Yes	1.00	**4.35**
		$U_6 - U_7$	885.41	-----	343	206	-453	9	-359	147	-105	-102	0.847	0.146	1.00	Yes	0.592	0.100	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		$U_7 - U_8$	989.85	-----	-11	1194	-633	1729	-252	452	-385	54	0.686	0.308	1.00	Yes	0.478	0.210	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_8 - U_9$	859.88	-----	1505	-497	617	-162	67	343	31	184	0.705	0.294	1.00	Yes	0.482	0.200	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.60**
		$U_9 - U_{10}$	714.16	-----	431	-76	61	27	387	789	157	301	0.775	0.223	1.00	Yes	0.525	0.150	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.35**
		$U_{10} - U_{11}$	-----	-345.16	1788	-2471	84	-180	1214	303	243	55	-----	-----	-----	-----	-----	-----	-----	-----	0.444	0.448	0.9	Yes	0.440	0.554	1.00	Yes	1.00	**18.86**
		$U_{11} - U_{12}$	-----	-894.85	218	-102	-48	-732	160	103	408	211	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.149	1	Yes	0.840	0.121	0.97	Yes	1.00	**3.26**
		$U_{12} - U_{13}$	-----	-1277.91	7	-155	-349	-494	197	-45	785	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.131	1	Yes	0.854	0.068	0.93	Yes	1.00	**3.58**
		$U_{13} - U_{14}$	-----	-1388.56	-104	-353	-472	-1431	150	65	141	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.187	1	Yes	0.796	0.158	0.96	Yes	1.00	**2.83**
		$U_{14} - U_{15}$	-----	-1346.11	-253	-188	-1560	-580	182	-56	265	-47	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.214	1	Yes	0.772	0.172	0.95	Yes	1.00	**2.52**
		$U_{15} - U_{16}$	-----	-1509.85	-26	-409	-594	-643	11	-57	595	178	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.116	1	Yes	0.866	0.071	0.94	Yes	1.00	**4.02**
		$U_{16} - U_{17}$	-----	-1423.99	-313	-185	-1276	-459	47	-171	177	-237	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.172	1	Yes	0.816	0.141	0.96	Yes	1.00	**3.24**
		$U_{17} - U_{18}$	-----	-1058.00	-156	-109	-684	16	-152	-204	-137	-563	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.162	1	Yes	0.828	0.111	0.94	Yes	1.00	**3.42**
		$U_{18} - U_{19}$	-----	-723.84	-191	-30	-651	38	-174	-161	-218	-312	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.170	1	Yes	0.814	0.131	0.95	Yes	1.00	**3.14**
		$U_{19} - U_{20}$	-----	-655.30	-152	-117	-1305	344	-40	25	120	-505	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.256	1	Yes	0.737	0.263	1.00	Yes	1.00	**7.99**
	Structure 2	$U_0 - U_1$	-----	-633.39	581	-1464	-84	-28	532	275	17	-64	-----	-----	-----	-----	-----	-----	-----	-----	0.753	0.228	0.99	Yes	0.748	0.249	1.00	Yes	1.00	**7.56**
		$U_1 - U_2$	-----	-827.90	-86	-132	-145	-918	45	16	359	-150	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.187	1	Yes	0.799	0.139	0.94	Yes	1.00	**5.37**
		$U_2 - U_3$	-----	-1142.31	-37	-1120	-261	-878	1128	128	314	-39	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.181	1	Yes	0.811	0.114	0.93	Yes	1.00	**3.57**
		$U_3 - U_4$	-----	-1452.47	-340	-233	-915	-1134	96	-347	436	347	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.166	1	Yes	0.827	0.101	0.93	Yes	1.00	**2.93**
		$U_4 - U_5$	-----	-1549.00	-335	-261	-1005	-1461	-110	-391	582	32	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.190	1	Yes	0.795	0.121	0.92	Yes	1.00	**2.79**
		$U_5 - U_6$	-----	-1625.53	-332	107	-1274	-560	-153	-328	579	-4	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.152	1	Yes	0.835	0.106	0.95	Yes	1.00	**2.86**
		$U_6 - U_7$	-----	-1377.82	-207	-24	-884	-1466	-118	-279	346	-159	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.203	1	Yes	0.785	0.131	0.92	Yes	1.00	**2.45**
		$U_7 - U_8$	-----	-1380.77	-123	-152	-1586	-745	-208	-232	-145	-339	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.203	1	Yes	0.786	0.141	0.93	Yes	1.00	**2.40**
		$U_8 - U_9$	64.02	-1261.07	-208	209	-926	-303	-299	-201	335	-87	0.037	0.126	0.17	Yes	0.026	0.083	0.11	Yes	0.861	0.134	1	Yes	0.855	0.098	0.96	Yes	1.00	**2.98**
		$U_9 - U_{10}$	213.59	-943.39	-33	346	-1385	-102	-316	-140	154	-92	0.157	0.203	0.36	Yes	0.106	0.137	0.25	Yes	0.819	0.176	1	Yes	0.814	0.168	0.99	Yes	1.00	**2.65**
		$U_{10} - U_{11}$	729.00	-834.33	246	507	-977	-118	-201	-38	-220	-384	0.616	0.185	0.81	Yes	0.419	0.120	0.54	Yes	0.834	0.159	1	Yes	0.829	0.138	0.97	Yes	1.00	**4.31**
		$U_{11} - U_{12}$	898.97	-----	241	560	-1248	761	-380	-158	-395	-508	0.759	0.238	1.00	Yes	0.510	0.159	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.96**
		$U_{12} - U_{13}$	1239.78	-----	429	61	-590	-347	-466	12	-867	-790	0.837	0.157	1.00	Yes	0.597	0.109	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		$U_{13} - U_{14}$	1260.74	-----	-205	2216	-1207	3804	-343	304	-255	119	0.620	0.376	1.00	Yes	0.439	0.246	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.72**
		$U_{14} - U_{15}$	1302.17	-----	3501	-529	1551	-121	-139	459	-120	241	0.640	0.355	1.00	Yes	0.453	0.233	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.48**
		$U_{15} - U_{16}$	1327.25	-----	216	856	-438	-826	-403	95	616	1098	0.802	0.190	1.00	Yes	0.571	0.131	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.05**
		$U_{16} - U_{17}$	1006.93	-----	1326	-467	319	35	795	449	349	183	0.742	0.250	1.00	Yes	0.494	0.164	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.57**
		$U_{17} - U_{18}$	607.23	-452.37	1246	-1782	94	-1143	194	-382	555	468	0.610	0.384	1.00	Yes	0.406	0.254	0.66	Yes	0.538	0.263	0.81	Yes	0.534	0.302	0.84	Yes	1.00	**10.58**
		$U_{18} - U_{19}$	846.81	-99.52	623	544	-35	-448	-235	-71	214	16	0.850	0.140	1.00	Yes	0.558	0.089	0.65	Yes	0.118	0.130	0.25	Yes	0.118	0.106	0.23	Yes	1.00	**5.79**
		$U_{19} - U_{20}$	540.76	-758.01	426	325	-274	-713	-159	66	384	245	0.507	0.166	0.68	Yes	0.336	0.109	0.45	Yes	0.842	0.154	1	Yes	0.836	0.114	0.96	Yes	1.00	**4.13**
		$U_{20} - U_{21}$	460.03	-923.61	263	275	-467	-482	-104	-25	719	-98	0.357	0.148	0.51	Yes	0.250	0.100	0.35	Yes	0.849	0.144	1	Yes	0.843	0.070	0.92	Yes	1.00	**4.02**
		$U_{21} - U_{22}$	316.80	-859.09	123	133	-575	-1097	-42	56	49	-155	0.246	0.176	0.43	Yes	0.174	0.117	0.30	Yes	0.790	0.206	1	Yes	0.784	0.159	0.95	Yes	1.00	**3.08**
		$U_{22} - U_{23}$	266.42	-822.13	124	93	-1344	-516	-42	-23	89	-131	0.207	0.209	0.42	Yes	0.146	0.139	0.29	Yes	0.756	0.235	1	Yes	0.750	0.195	0.95	Yes	1.00	**2.73**
		$U_{23} - U_{24}$	828.85	-824.55	548	372	-1042	-213	-530	75	-176	-491	0.643	0.209	0.86	Yes	0.450	0.137	0.59	Yes	0.758	0.238	1	Yes	0.753	0.151	0.91	Yes	1.00	**7.07**
		$U_{24} - U_{25}$	432.36	-760.32	234	320	-884	-212	-208	44	90	-146	0.405	0.169	0.58	Yes	0.269	0.111	0.39	Yes	0.844	0.155	1	Yes	0.839	0.141	0.99	Yes	1.00	**3.53**
		$U_{25} - U_{26}$	787.03	-610.34	481	539	-952	348	-271	154	-42	-233	0.790	0.201	1.00	Yes	0.518	0.128	0.65	Yes	0.725	0.192	0.92	Yes	0.721	0.162	0.89	Yes	1.00	**5.62**
		$U_{26} - U_{27}$	744.50	-----	369	408	-1220	621	-198	94	-275	-144	0.747	0.247	1.00	Yes	0.498	0.164	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.54**
		$U_{27} - U_{28}$	1086.85	-----	429	547	-987	856	-286	157	-416	-679	0.801	0.195	1.00	Yes	0.533	0.128	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.50**
		$U_{28} - U_{29}$	1436.33	-----	348	6	-757	-138	-213	335	-520	-189	0.868	0.130	1.00	Yes	0.618	0.088	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.26**
		$U_{29} - U_{30}$	1274.57	-----	-77	2008	-605	3559	-81	544	-471	239	0.627	0.367	1.00	Yes	0.444	0.240	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.54**
		$U_{30} - U_{31}$	1266.44	-----	3631	-863	1500	-256	58	539	118	333	0.623	0.373	1.00	Yes	0.441	0.244	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.66**
		$U_{31} - U_{32}$	1189.66	-----	149	577	-417	-692	-119	172	873	1140	0.803	0.196	1.00	Yes	0.573	0.136	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.03**
		$U_{32} - U_{33}$	871.20	-----	1119	-1323	233	-77	626	-100	384	137	0.736	0.263	1.00	Yes	0.494	0.175	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.39**
		$U_{33} - U_{34}$	844.37	-814.17	551	356	-190	-1056	101	249	527	304	0.713	0.213	0.93	Yes	0.485	0.139	0.63	Yes	0.814	0.178	1	Yes	0.809	0.149	0.96	Yes	1.00	**4.56**
		$U_{34} - U_{35}$	379.79	-979.89	464	76	-195	-1174	106	39	384	-12	0.279	0.185	0.47	Yes	0.189	0.125	0.32	Yes	0.851	0.143	1	Yes	0.846	0.143	0.99	Yes	1.00	**3.24**
		$U_{35} - U_{36}$	121.77	-1263.15	245	-189	-449	-820	93	131	551	111	0.070	0.133	0.21	Yes	0.049	0.088	0.14	Yes	0.863	0.131	1	Yes	0.857	0.087	0.95	Yes	1.00	**2.99**
		$U_{36} - U_{37}$	-----	-1371.77	-72	-14	-768	-1617	130	-67	454	-31	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.204	1	Yes	0.781	0.144	0.93	Yes	1.00	**2.65**
		$U_{37} - U_{38}$	-----	-1370.63	118	-176	-1532	-894	21	39	242	61	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.206	1	Yes	0.780	0.136	0.92	Yes	1.00	**2.64**
		$U_{38} - U_{39}$	-----	-1679.38	199	-328	-710	-1184	92	-61	520	-11	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.130	1	Yes	0.862	0.098	0.97	Yes	1.00	**3.48**
		$U_{39} - U_{40}$	-----	-1512.76	-274	-453	-1926	-873	-115	-119	219	-215	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.212	1	Yes	0.777	0.160	0.94	Yes	1.00	**2.64**
		$U_{40} - U_{41}$	-----	-1468.02	-346	-410	-936	-853	-90	-98	-199	-415	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.149	1	Yes	0.836	0.083	0.92	Yes	1.00	**3.05**
		$U_{41} - U_{42}$	-----	-1177.92	-216	-192	-1174	-129	-73	103	-158	-380	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.156	1	Yes	0.836	0.120	0.96	Yes	1.00	**3.19**
		$U_{42} - U_{43}$	-----	-856.27	-228	-57	-853	-43	187	-10	-231	-373	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.160	1	Yes	0.826	0.129	0.96	Yes	1.00	**3.50**
		$U_{43} - U_{44}$	-----	-617.04	-26	-235	-1359	275	-8	19	-93	-389	-----	-----	-----	-----	-----	-----	-----	-----	0.733	0.263	1	Yes	0.729	0.231	0.96	Yes	1.00	**6.07**
	Structure 3	$U_0 - U_1$	-----	-658.12	583	-1201	-8	-1208	619	-184	455	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.248	1	Yes	0.740	0.243	0.99	Yes	1.00	**8.61**
		$U_1 - U_2$	-----	-697.78	-4	-563	-69	-97	437	645	246	511	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.203	1	Yes	0.785	0.113	0.90	Yes	1.00	**3.61**
		$U_2 - U_3$	-----	-1054.07	22	-667	-91	-125	790	-27	375	-4	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.162	1	Yes	0.825	0.109	0.94	Yes	1.00	**3.64**
		$U_3 - U_4$	-----	-1424.59	-141	-194	-497	-1079	125	-245	484	327	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.166	1	Yes	0.817	0.119	0.94	Yes	1.00	**3.67**
		$U_4 - U_5$	-----	-1463.80	-318	-28	-841	-404	-23	-318	753	-164	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.145	1	Yes	0.839	0.093	0.94	Yes	1.00	**3.38**
		$U_5 - U_6$	-----	-1370.52	-148	-223	-614	-1348	-52	-211	-58	-307	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.198	1	Yes	0.786	0.149	0.94	Yes	1.00	**2.96**
		$U_6 - U_7$	-----	-1343.94	-315	-92	-1707	-420	-81	-230	38	-198	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.216	1	Yes	0.770	0.188	0.96	Yes	1.00	**2.63**
		$U_7 - U_8$	-----	-1260.47	-121	-28	-508	-422	-225	-219	0	-666	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.143	1	Yes	0.842	0.070	0.92	Yes	1.00	**3.19**
		$U_8 - U_9$	-----	-906.27	-102	168	-840	-1	-213	-126	85	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.138	1	Yes	0.850	0.139	0.99	Yes	1.00	**2.89**
		$U_9 - U_{10}$	207.85	-616.42	-38	246	-895	251	-312	-140	-221	-382	0.225	0.262	0.49	Yes	0.150	0.169	0.32	Yes	0.794	0.199	1	Yes	0.787	0.201	0.99	Yes	1.00	**4.17**
		$U_{10} - U_{11}$	740.67	-35.35	281	234	-483	240	-357	2	-544	-413	0.803	0.196	1.00	Yes	0.544	0.131	0.68	Yes	0.046	0.120	0.17	Yes	0.045	0.108	0.16	Yes	1.00	**6.22**
		$U_{11} - U_{12}$	810.39	-----	-151	1135	-847	1660	-334	201	-468	-225	0.664	0.336	1.00	Yes	0.454	0.229	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.49**
		$U_{12} - U_{13}$	1009.72	-----	1774	-409	646	-45	-287	142	-147	55	0.700	0.298	1.00	Yes	0.488	0.203	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.86**
		$U_{13} - U_{14}$	882.23	-----	242	400	-29	-312	-175	308	275	498	0.844	0.154	1.00	Yes	0.590	0.106	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.68**
		$U_{14} - U_{15}$	363.70	-----	2000	-564	147	58	634	-180	132	40	0.417	0.582	1.00	Yes	0.281	0.380	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**16.25**
		$U_{15} - U_{16}$	453.28	-562.52	357	198	-166	-842	-37	173	337	209	0.520	0.257	0.78	Yes	0.357	0.176	0.54	Yes	0.765	0.228	1	Yes	0.759	0.200	0.96	Yes	1.00	**4.04**
		$U_{16} - U_{17}$	385.87	-590.15	347	109	-781	-347	19	89	202	-11	0.442	0.220	0.67	Yes	0.304	0.151	0.46	Yes	0.803	0.194	1	Yes	0.796	0.186	0.99	Yes	1.00	**3.42**
		$U_{17} - U_{18}$	239.07	-659.52	358	-103	-288	-375	-83	248	98	-204	0.274	0.131	0.41	Yes	0.185	0.086	0.28	Yes	0.897	0.096	1	Yes	0.889	0.089	0.98	Yes	1.00	**3.62**
		$U_{18} - U_{19}$	79.28	-575.14	100	-19	-764	-180	216	55	207	5	0.091	0.218	0.31	Yes	0.062	0.150	0.22	Yes	0.783	0.215	1	Yes	0.776	0.182	0.96	Yes	1.00	**3.10**
		$U_{19} - U_{20}$	50.45	-616.73	235	-500	-687	70	-8	65	220	-309	0.058	0.215	0.28	Yes	0.040	0.148	0.19	Yes	0.839	0.153	1	Yes	0.832	0.163	1.00	Yes	1.00	**6.04**

Moment (Start) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

				Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
						Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
				Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
				(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Lower Chord	Structure 1	L_0 - L_1		127.19	-123.96	1054	-1453	-375	288	-457	-1678	50	184	0.195	0.796	1.00	Yes	0.115	0.477	0.60	Yes	0.225	0.559	0.79	Yes	0.223	0.436	0.66	Yes	1.00	**20.18**
		L_1 - L_2		415.63	-----	52	-114	-115	-700	-13	36	-671	283	0.636	0.354	1.00	Yes	0.388	0.231	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.37**
		L_2 - L_3		709.92	-207.88	27	174	-609	-559	0	-17	199	-165	0.817	0.179	1.00	Yes	0.473	0.107	0.58	Yes	0.284	0.184	0.47	Yes	0.281	0.147	0.43	Yes	1.00	**4.89**
		L_3 - L_4		667.04	-318.25	91	350	-379	-704	-15	-7	-349	273	0.767	0.226	1.00	Yes	0.456	0.144	0.61	Yes	0.435	0.201	0.64	Yes	0.431	0.170	0.61	Yes	1.00	**4.31**
		L_4 - L_5		127.63	-508.60	114	459	-832	422	133	-111	-68	-30	0.165	0.244	0.41	Yes	0.099	0.160	0.26	Yes	0.782	0.175	0.96	Yes	0.775	0.220	1.00	Yes	1.00	**3.02**
		L_5 - L_6		-----	-735.91	144	567	-283	197	29	95	198	153	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.135	1	Yes	0.849	0.125	0.98	Yes	1.00	**3.21**
		L_6 - L_7		-----	-1124.23	189	-20	-601	315	138	-46	-104	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.915	0.041	0.96	Yes	0.905	0.094	1.00	Yes	1.00	**4.62**
		L_7 - L_8		-----	-1246.31	-33	583	-98	1455	41	72	106	154	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.193	1	Yes	0.789	0.193	0.99	Yes	1.00	**2.39**
		L_8 - L_9		-----	-1273.05	1418	-112	554	-47	132	84	37	-14	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.183	1	Yes	0.806	0.188	1.00	Yes	1.00	**2.59**
		L_9 - L_{10}		-----	-1116.71	609	-602	-109	104	103	100	276	-23	-----	-----	-----	-----	-----	-----	-----	-----	0.909	0.051	0.97	Yes	0.899	0.096	1.00	Yes	1.00	**7.34**
		L_{10} - L_{11}		-----	-539.08	656	-390	157	-151	110	40	52	18	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.082	0.92	Yes	0.821	0.174	1.00	Yes	1.00	**4.24**
		L_{11} - L_{12}		162.89	-----	2164	-2620	207	-258	-247	-502	-38	60	0.211	0.781	1.00	Yes	0.127	0.513	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**27.88**
		L_{12} - L_{13}		1130.87	-----	112	-78	-298	-469	-26	-42	7	-180	0.892	0.104	1.00	Yes	0.571	0.063	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.40**
		L_{13} - L_{14}		1273.71	-----	340	-1570	91	-1369	-251	81	-324	229	0.749	0.243	1.00	Yes	0.485	0.149	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		L_{14} - L_{15}		1555.13	-----	-348	-81	-1863	-308	-68	-51	-158	91	0.760	0.236	1.00	Yes	0.494	0.142	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		L_{15} - L_{16}		1705.52	-----	-184	-390	-960	-1169	-79	10	321	227	0.833	0.163	1.00	Yes	0.535	0.096	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.70**
		L_{16} - L_{17}		1254.41	-----	-392	33	-1222	74	-35	-63	-260	-76	0.793	0.202	1.00	Yes	0.515	0.125	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.47**
		L_{17} - L_{18}		939.85	-----	-165	-65	-712	146	-65	-5	-227	-316	0.818	0.178	1.00	Yes	0.524	0.107	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.89**
		L_{18} - L_{19}		438.63	-----	-228	164	-919	444	-1	-27	-227	209	0.671	0.323	1.00	Yes	0.454	0.202	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.02**
		L_{19} - L_{20}		84.23	-280.17	-93	18	-1631	947	-36	-8	587	131	0.129	0.611	0.75	Yes	0.079	0.408	0.49	Yes	0.509	0.345	0.86	Yes	0.504	0.490	1.00	Yes	1.00	**12.73**
	Structure 2	L_0 - L_1		75.65	-32.87	1233	-3212	-277	326	-442	-1534	11	39	0.092	0.906	1.00	Yes	0.055	0.574	0.63	Yes	0.047	0.628	0.68	Yes	0.047	0.654	0.71	Yes	1.00	**18.39**
		L_1 - L_2		566.33	-----	381	-1151	125	-130	-419	225	81	84	0.688	0.303	1.00	Yes	0.409	0.193	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.73**
		L_2 - L_3		987.54	-----	202	-1030	-158	-802	609	543	266	-83	0.778	0.214	1.00	Yes	0.510	0.130	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.24**
		L_3 - L_4		1391.83	-----	74	-461	-370	-1382	33	116	82	159	0.818	0.174	1.00	Yes	0.551	0.108	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.36**
		L_4 - L_5		1843.68	-----	-206	-159	-1044	-1292	15	-13	238	-81	0.860	0.138	1.00	Yes	0.569	0.082	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.20**
		L_5 - L_6		1934.53	-----	-10	-246	-792	-1602	-92	56	-353	177	0.830	0.164	1.00	Yes	0.557	0.101	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.91**
		L_6 - L_7		1955.80	-----	-303	-5	-1687	-1619	55	-33	255	21	0.828	0.164	1.00	Yes	0.550	0.096	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		L_7 - L_8		1363.59	-83.69	-145	303	-1490	-444	-60	80	-602	-244	0.782	0.214	1.00	Yes	0.514	0.128	0.65	Yes	0.057	0.192	0.25	Yes	0.056	0.164	0.23	Yes	1.00	**3.15**
		L_8 - L_9		1119.16	-350.63	-73	536	-1030	-49	49	-141	196	828	0.783	0.217	1.00	Yes	0.527	0.138	0.67	Yes	0.291	0.150	0.45	Yes	0.289	0.139	0.43	Yes	1.00	**3.51**
		L_9 - L_{10}		772.77	-741.98	-21	704	-1349	205	-42	6	357	-84	0.690	0.259	0.95	Yes	0.402	0.160	0.57	Yes	0.784	0.139	0.93	Yes	0.779	0.216	1.00	Yes	1.00	**4.45**
		L_{10} - L_{11}		94.09	-736.26	39	569	-770	490	127	-47	-212	-142	0.094	0.163	0.26	Yes	0.055	0.102	0.16	Yes	0.871	0.104	0.98	Yes	0.865	0.135	1.00	Yes	1.00	**3.10**
		L_{11} - L_{12}		-----	-1004.84	-24	919	-685	1286	17	63	-26	19	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.102	0.94	Yes	0.824	0.175	1.00	Yes	1.00	**2.94**
		L_{12} - L_{13}		-----	-1451.32	178	-781	-958	-372	72	-52	29	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.119	1	Yes	0.868	0.095	0.97	Yes	1.00	**4.90**
		L_{13} - L_{14}		-----	-1462.23	-488	1434	-1185	2980	-78	-111	94	-33	-----	-----	-----	-----	-----	-----	-----	-----	0.742	0.174	0.92	Yes	0.736	0.260	1.00	Yes	1.00	**2.17**
		L_{14} - L_{15}		-----	-1469.87	2873	-1112	1394	-536	-80	-76	-127	-109	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.168	0.92	Yes	0.740	0.251	1.00	Yes	1.00	**2.01**
		L_{15} - L_{16}		-----	-1477.99	-424	-148	-1095	-87	17	86	-2	3	-----	-----	-----	-----	-----	-----	-----	-----	0.891	0.102	1	Yes	0.884	0.109	1.00	Yes	1.00	**2.88**
		L_{16} - L_{17}		-----	-1131.76	1392	-273	612	-64	41	-8	22	-4	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.131	0.97	Yes	0.824	0.172	1.00	Yes	1.00	**2.64**
		L_{17} - L_{18}		-----	-831.12	793	-520	354	-47	11	0	4	28	-----	-----	-----	-----	-----	-----	-----	-----	0.879	0.076	0.96	Yes	0.873	0.127	1.00	Yes	1.00	**3.28**
		L_{18} - L_{19}		-----	-660.85	595	155	205	-333	-47	-69	116	-55	-----	-----	-----	-----	-----	-----	-----	-----	0.886	0.096	0.99	Yes	0.881	0.115	1.00	Yes	1.00	**3.24**
		L_{19} - L_{20}		283.85	-675.75	502	280	119	-482	-26	-42	-178	137	0.322	0.124	0.45	Yes	0.190	0.078	0.27	Yes	0.906	0.085	1	Yes	0.901	0.097	1.00	Yes	1.00	**4.20**
		L_{20} - L_{21}		1060.14	-813.90	593	258	-537	-895	15	-64	8	-205	0.845	0.153	1.00	Yes	0.554	0.091	0.65	Yes	0.769	0.127	0.9	Yes	0.764	0.131	0.90	Yes	1.00	**5.71**
		L_{21} - L_{22}		712.50	-876.32	469	354	-663	-1189	-32	-104	165	18	0.568	0.191	0.76	Yes	0.380	0.120	0.50	Yes	0.828	0.156	0.99	Yes	0.822	0.174	1.00	Yes	1.00	**6.59**
		L_{22} - L_{23}		889.10	-449.28	113	262	-1876	-316	59	-61	-98	65	0.709	0.284	1.00	Yes	0.474	0.177	0.66	Yes	0.424	0.233	0.66	Yes	0.422	0.274	0.70	Yes	1.00	**3.85**
		L_{23} - L_{24}		992.87	-697.20	210	459	-1087	-609	4	48	380	277	0.792	0.200	1.00	Yes	0.519	0.120	0.64	Yes	0.659	0.191	0.86	Yes	0.654	0.159	0.82	Yes	1.00	**5.32**
		L_{24} - L_{25}		435.54	-624.16	244	466	-846	217	97	-98	-167	36	0.493	0.189	0.69	Yes	0.292	0.120	0.42	Yes	0.837	0.122	0.96	Yes	0.832	0.163	1.00	Yes	1.00	**4.25**
		L_{25} - L_{26}		-----	-662.60	155	564	-564	390	11	72	3	71	-----	-----	-----	-----	-----	-----	-----	-----	0.889	0.086	0.98	Yes	0.883	0.109	1.00	Yes	1.00	**3.78**
		L_{26} - L_{27}		-----	-820.58	231	412	-707	857	131	-8	86	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.076	0.95	Yes	0.862	0.137	1.00	Yes	1.00	**3.76**
		L_{27} - L_{28}		-----	-1142.50	170	1106	-778	1354	126	215	16	-61	-----	-----	-----	-----	-----	-----	-----	-----	0.839	0.126	0.97	Yes	0.832	0.167	1.00	Yes	1.00	**5.93**
		L_{28} - L_{29}		-----	-1462.07	26	-813	-396	-972	186	98	-47	-88	-----	-----	-----	-----	-----	-----	-----	-----	0.882	0.112	1	Yes	0.875	0.097	0.98	Yes	1.00	**3.02**
		L_{29} - L_{30}		-----	-1472.88	-484	1306	-1117	2912	21	13	15	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.748	0.164	0.92	Yes	0.741	0.254	1.00	Yes	1.00	**2.18**
		L_{30} - L_{31}		-----	-1458.17	2971	-1097	1334	-471	-42	-44	-6	-18	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.172	0.92	Yes	0.734	0.259	1.00	Yes	1.00	**2.17**
		L_{31} - L_{32}		-----	-1459.56	-295	-163	-971	-298	5	15	157	167	-----	-----	-----	-----	-----	-----	-----	-----	0.881	0.115	1	Yes	0.873	0.096	0.97	Yes	1.00	**3.21**
		L_{32} - L_{33}		-----	-999.38	1278	-586	529	-148	43	12	45	27	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.112	0.94	Yes	0.820	0.174	1.00	Yes	1.00	**2.88**
		L_{33} - L_{34}		-----	-766.11	543	130	361	-173	0	-11	12	82	-----	-----	-----	-----	-----	-----	-----	-----	0.906	0.073	0.98	Yes	0.900	0.095	1.00	Yes	1.00	**3.16**
		L_{34} - L_{35}		796.48	-787.50	777	23	26	-1068	4	-52	181	-142	0.711	0.193	0.91	Yes	0.414	0.120	0.54	Yes	0.833	0.105	0.94	Yes	0.827	0.171	1.00	Yes	1.00	**4.47**
		L_{35} - L_{36}		1169.02	-462.75	599	-1	94	-994	-43	-8	-442	247	0.818	0.176	1.00	Yes	0.551	0.111	0.67	Yes	0.384	0.089	0.48	Yes	0.381	0.134	0.52	Yes	1.00	**3.97**
		L_{36} - L_{37}		1401.39	-153.73	408	-8	-433	-1492	14	-18	304	34	0.804	0.190	1.00	Yes	0.528	0.112	0.64	Yes	0.104	0.171	0.28	Yes	0.104	0.165	0.27	Yes	1.00	**3.43**
		L_{37} - L_{38}		1898.01	-----	163	-338	-1800	-1529	-57	36	-508	271	0.803	0.190	1.00	Yes	0.534	0.112	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.19**
		L_{38} - L_{39}		1843.88	-----	-290	-54	-1686	-1232	-5	-67	335	839	0.791	0.202	1.00	Yes	0.531	0.125	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.81**
		L_{39} - L_{40}		1736.24	-----	-183	-366	-1666	-700	-69	-8	357	-66	0.809	0.181	1.00	Yes	0.536	0.108	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.28**
		L_{40} - L_{41}		1408.30	-----	-345	4	-1209	-83	-1	2	-286	-145	0.827	0.164	1.00	Yes	0.557	0.102	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.53**
		L_{41} - L_{42}		1037.07	-----	-122	-122	-1037	114	46	103	-257	-293	0.817	0.181	1.00	Yes	0.536	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.28**
		L_{42} - L_{43}		574.95	-----	-212	134	-1215	393	76	26	-163	284	0.698	0.294	1.00	Yes	0.415	0.188	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.06**
		L_{43} - L_{44}		-----	-167.84	241	-185	-3697	1330	-89	-26	1343	392	-----	-----	-----	-----	-----	-----	-----	-----	0.241	0.652	0.9	Yes	0.240	0.752	1.00	Yes	1.00	**22.21**
	Structure 3	L_0 - L_1		22.71	-151.41	1420	-2359	-93	54	-266	-1208	3	13	0.035	0.958	1.00	Yes	0.021	0.636	0.66	Yes	0.275	0.572	0.85	Yes	0.273	0.708	0.99	Yes	1.00	**20.18**
		L_1 - L_2		451.56	-----	386	-804	146	-165	-291	298	36	59	0.691	0.303	1.00	Yes	0.467	0.191	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.82**
		L_2 - L_3		908.62	-----	179	-775	-46	-142	448	316	52	57	0.791	0.207	1.00	Yes	0.506	0.125	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.98**
		L_3 - L_4		1283.10	-----	62	-382	-14	-1125	27	114	-205	218	0.811	0.184	1.00	Yes	0.526	0.114	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.32**
		L_4 - L_5		1762.43	-----	-269	-125	-1069	-792	28	14	88	-136	0.861	0.138	1.00	Yes	0.553	0.081	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.08**
		L_5 - L_6		1588.60	-----	-35	-311	-347	-1625	-62	137	-227	376	0.776	0.222	1.00	Yes	0.504	0.135	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.86**
		L_6 - L_7		1284.64	-----	-348	208	-1669	220	4	-33	-49	132	0.756	0.241	1.00	Yes	0.489	0.147	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.54**
		L_7 - L_8		1088.00	-----	-78	76	-549	-342	-30	52	337	329	0.859	0.137	1.00	Yes	0.549	0.083	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.12**
		L_8 - L_9		571.62	-183.00	-162	352	-854	332	60	-104	-144	-21	0.740	0.251	1.00	Yes	0.444	0.165	0.61	Yes	0.281	0.118	0.4	Yes	0.279	0.226	0.51	Yes	1.00	**4.22**
		L_9 - L_{10}		-----	-537.99	-22	495	-656	353	11	78	-41	3	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.080	0.91	Yes	0.820	0.174	1.00	Yes	1.00	**4.93**
		L_{10} - L_{11}		-----	-1086.20	121	23	-778	642	54	-276	71	-143	-----	-----	-----	-----	-----	-----	-----	-----	0.884	0.051	0.94	Yes	0.874	0.122	1.00	Yes	1.00	**7.59**
		L_{11} - L_{12}		-----	-1257.24	-33	1063	-185	1395	-152	-69	-95	-287	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.189	1	Yes	0.796	0.185	0.99	Yes	1.00	**4.21**
		L_{12} - L_{13}		-----	-1247.13	1438	-99	557	-34	-213	-203	-129	-138	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.198	1	Yes	0.790	0.190	0.99	Yes	1.00	**2.42**
		L_{13} - L_{14}		-----	-1166.65	271	-354	-94	194	-163	-86	-42	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.950	0.038	0.99	Yes	0.939	0.056	1.00	Yes	1.00	**4.66**
		L_{14} - L_{15}		-----	-732.30	684	-61	210	-214	24	-24	-32	-141	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.133	0.99	Yes	0.845	0.151	1.00	Yes	1.00	**3.23**
		L_{15} - L_{16}		-----	-374.04	1219	-1617	253	-33	-144	-8	-28	46	-----	-----	-----	-----	-----	-----	-----	-----	0.575	0.205	0.79	Yes	0.570	0.428	1.00	Yes	1.00	**8.45**
		L_{16} - L_{17}		665.15	-263.77	370	37	-907	-342	55	-80	-11	4	0.765	0.232	1.00	Yes	0.455	0.151	0.61	Yes	0.360	0.234	0.6	Yes	0.357	0.219	0.58	Yes	1.00	**4.06**
		L_{17} - L_{18}		694.43	-127.16	118	-44	-618	-710	42	102	177	113	0.799	0.200	1.00	Yes	0.462	0.120	0.59	Yes	0.174	0.219	0.4	Yes	0.172	0.171	0.35	Yes	1.00	**4.24**
		L_{18} - L_{19}		450.44	-44.63	46	15	-841	65	52	-73	-118	237	0.689	0.303	1.00	Yes	0.421	0.203	0.63	Yes	0.081	0.181	0.27	Yes	0.080	0.252	0.34	Yes	1.00	**4.42**
		L_{19} - L_{20}		-----	-222.93	307	-355	-1973	1677	-235	-64	1338	364	-----	-----	-----	-----	-----	-----	-----	-----	0.405	0.565	0.98	Yes	0.401	0.592	1.00	Yes	1.00	**26.45**

Moment (Start) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-310.40	-1	21	-150	200	-72	-23	-720	-231	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.299	1	Yes	0.657	0.255	0.92	Yes	1.00	**2.33**
		$U_1 - L_1$	74.04	-333.90	56	-52	-217	224	107	41	-117	-49	0.133	0.321	0.46	Yes	0.073	0.176	0.25	Yes	0.730	0.114	0.85	Yes	0.707	0.287	1.00	Yes	1.00	**4.35**
		$U_2 - L_2$	132.84	-309.11	121	-134	-213	264	-197	-72	62	101	0.239	0.395	0.64	Yes	0.131	0.217	0.35	Yes	0.676	0.161	0.84	Yes	0.654	0.338	1.00	Yes	1.00	**5.81**
		$U_3 - L_3$	218.91	-268.38	184	-216	-309	332	-236	-221	11	255	0.394	0.498	0.90	Yes	0.217	0.274	0.50	Yes	0.588	0.172	0.77	Yes	0.568	0.424	1.00	Yes	1.00	**7.93**
		$U_4 - L_4$	-----	-374.24	159	-162	54	-55	-93	-42	-160	-74	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.097	0.93	Yes	0.792	0.207	1.00	Yes	1.00	**2.92**
		$U_5 - L_5$	-----	-422.33	247	-260	59	-66	-95	-30	-150	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.106	0.87	Yes	0.729	0.264	1.00	Yes	1.00	**2.32**
		$U_6 - L_6$	-----	-536.06	248	-256	72	-72	-28	72	-135	0	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.084	0.9	Yes	0.769	0.224	1.00	Yes	1.00	**2.74**
		$U_7 - L_7$	-----	-435.89	302	-328	119	-132	-1	99	-130	46	-----	-----	-----	-----	-----	-----	-----	-----	0.729	0.125	0.86	Yes	0.672	0.323	1.00	Yes	1.00	**1.84**
		$U_8 - L_8$	-----	-1197.22	353	-432	-289	342	628	149	-1101	-382	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.129	1	Yes	0.830	0.080	0.92	Yes	1.00	**4.36**
		$U_9 - L_9$	-----	-642.72	-176	203	-403	476	-245	-171	-109	-347	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.154	0.93	Yes	0.726	0.264	1.00	Yes	1.00	**2.54**
		$U_{10} - L_{10}$	-----	-823.41	-115	115	-362	350	-203	-146	-319	-257	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.115	0.97	Yes	0.812	0.188	1.00	Yes	1.00	**3.75**
		$U_{11} - L_{11}$	-----	-668.03	-118	161	-371	462	-140	-32	-157	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.091	0.9	Yes	0.778	0.215	1.00	Yes	1.00	**3.28**
		$U_{12} - L_{12}$	-----	-535.43	-103	102	-298	307	-125	5	-99	63	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.090	0.87	Yes	0.735	0.262	1.00	Yes	1.00	**3.00**
		$U_{13} - L_{13}$	-----	-367.92	-64	78	-237	256	-106	45	-81	107	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.101	0.85	Yes	0.705	0.292	1.00	Yes	1.00	**2.29**
		$U_{14} - L_{14}$	-----	-247.80	-34	40	-124	144	-1337	-225	-1596	-122	-----	-----	-----	-----	-----	-----	-----	-----	0.553	0.442	1	Yes	0.524	0.184	0.71	Yes	1.00	**3.28**
		$U_{15} - L_{15}$	54.55	-297.66	278	-286	-45	44	-94	-227	-156	-89	0.098	0.431	0.53	Yes	0.054	0.237	0.30	Yes	0.667	0.181	0.85	Yes	0.630	0.365	1.00	Yes	1.00	**4.68**
		$U_{16} - L_{16}$	1.26	-323.30	234	-245	10	-14	-94	-218	-165	-111	0.002	0.377	0.38	Yes	0.001	0.207	0.21	Yes	0.729	0.164	0.9	Yes	0.684	0.314	1.00	Yes	1.00	**3.86**
		$U_{17} - L_{17}$	-----	-438.22	218	-237	43	-55	42	-86	-170	-99	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.131	0.96	Yes	0.756	0.240	1.00	Yes	1.00	**2.72**
		$U_{18} - L_{18}$	-----	-536.36	425	-443	116	-121	65	-9	-158	-63	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.094	0.88	Yes	0.746	0.251	1.00	Yes	1.00	**3.21**
		$U_{19} - L_{19}$	-----	-651.62	484	-509	130	-143	364	148	-69	3	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.149	0.97	Yes	0.758	0.236	1.00	Yes	1.00	**3.63**
		$U_{20} - L_{20}$	-----	-598.09	404	-503	163	-209	544	71	17	2	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.200	1	Yes	0.696	0.233	0.93	Yes	1.00	**2.70**
	Structure 2	$U_0 - L_0$	-----	-647.76	-94	155	-402	521	-274	-46	-786	-133	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.216	1	Yes	0.694	0.221	0.92	Yes	1.00	**2.43**
		$U_1 - L_1$	-----	-696.84	-88	95	-466	508	57	-71	-858	-283	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.194	1	Yes	0.747	0.215	0.97	Yes	1.00	**3.26**
		$U_2 - L_2$	-----	-593.93	-48	56	-446	473	133	52	-703	-196	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.176	0.98	Yes	0.757	0.242	1.00	Yes	1.00	**3.43**
		$U_3 - L_3$	-----	-486.70	-24	30	-214	237	41	146	-507	-166	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.167	1	Yes	0.763	0.215	0.98	Yes	1.00	**3.15**
		$U_4 - L_4$	29.62	-341.14	17	-9	-204	212	-42	101	40	238	0.053	0.340	0.40	Yes	0.029	0.187	0.22	Yes	0.774	0.127	0.91	Yes	0.722	0.271	1.00	Yes	1.00	**3.61**
		$U_5 - L_5$	111.81	-337.74	80	-77	-191	219	-97	0	5	246	0.201	0.351	0.56	Yes	0.111	0.193	0.31	Yes	0.763	0.128	0.9	Yes	0.715	0.280	1.00	Yes	1.00	**4.96**
		$U_6 - L_6$	244.96	-290.19	154	-172	-289	299	-129	-78	56	340	0.441	0.480	0.93	Yes	0.242	0.264	0.51	Yes	0.653	0.169	0.83	Yes	0.614	0.382	1.00	Yes	1.00	**8.95**
		$U_7 - L_7$	-----	-229.46	318	-370	50	-58	-1241	-338	-128	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.518	0.477	1	Yes	0.486	0.473	0.96	Yes	1.00	**12.71**
		$U_8 - L_8$	-----	-458.24	371	-382	113	-125	-641	-477	-166	-113	-----	-----	-----	-----	-----	-----	-----	-----	0.664	0.223	0.89	Yes	0.660	0.335	1.00	Yes	1.00	**3.37**
		$U_9 - L_9$	-----	-698.36	567	-592	202	-207	-984	-733	-220	-118	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.209	0.99	Yes	0.748	0.251	1.00	Yes	1.00	**4.38**
		$U_{10} - L_{10}$	-----	-786.47	565	-589	184	-194	-44	-97	-162	-77	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.098	0.88	Yes	0.735	0.260	1.00	Yes	1.00	**3.79**
		$U_{11} - L_{11}$	-----	-841.18	433	-465	196	-196	-81	34	-122	-13	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.078	0.93	Yes	0.786	0.205	1.00	Yes	1.00	**2.65**
		$U_{12} - L_{12}$	-----	-889.12	514	-492	176	-153	49	119	-58	59	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.086	0.94	Yes	0.771	0.220	1.00	Yes	1.00	**2.78**
		$U_{13} - L_{13}$	-----	-737.70	601	-602	264	-273	-22	99	-131	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.118	0.95	Yes	0.711	0.288	1.00	Yes	1.00	**2.55**
		$U_{14} - L_{14}$	-----	-1201.30	625	-598	-394	362	702	392	-832	-292	-----	-----	-----	-----	-----	-----	-----	-----	0.879	0.116	1	Yes	0.797	0.111	0.91	Yes	1.00	**4.76**
		$U_{15} - L_{15}$	-----	-702.90	-136	151	-655	657	-33	15	-183	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.156	0.94	Yes	0.678	0.314	1.00	Yes	1.00	**3.40**
		$U_{16} - L_{16}$	-----	-734.64	-83	49	-489	449	-134	-53	-292	-207	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.116	0.97	Yes	0.787	0.207	1.00	Yes	1.00	**2.89**
		$U_{17} - L_{17}$	-----	-640.77	-138	125	-540	531	-85	-42	-160	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.092	0.89	Yes	0.746	0.251	1.00	Yes	1.00	**2.49**
		$U_{18} - L_{18}$	-----	-576.75	-130	116	-392	418	-77	-39	-1159	-186	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.228	1	Yes	0.735	0.214	0.95	Yes	1.00	**2.36**
		$U_{19} - L_{19}$	-----	-482.64	-86	77	-284	288	-90	-43	106	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.726	0.093	0.82	Yes	0.721	0.277	1.00	Yes	1.00	**3.47**
		$U_{20} - L_{20}$	-----	-384.84	-55	54	-208	222	-124	-96	-149	76	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.103	0.9	Yes	0.737	0.253	1.00	Yes	1.00	**3.35**
		$U_{21} - L_{21}$	-----	-314.70	-27	37	-245	255	-438	-43	-132	96	-----	-----	-----	-----	-----	-----	-----	-----	0.711	0.201	0.92	Yes	0.666	0.326	1.00	Yes	1.00	**3.50**
		$U_{22} - L_{22}$	-----	-226.57	174	-198	-125	146	-1479	-478	245	97	-----	-----	-----	-----	-----	-----	-----	-----	0.510	0.488	1	Yes	0.479	0.253	0.74	Yes	1.00	**13.06**
		$U_{23} - L_{23}$	-----	-309.11	265	-270	24	-25	-97	-150	-90	34	-----	-----	-----	-----	-----	-----	-----	-----	0.698	0.146	0.85	Yes	0.654	0.345	1.00	Yes	1.00	**3.77**
		$U_{24} - L_{24}$	-----	-378.95	225	-237	44	-46	-84	-133	-131	24	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.111	0.89	Yes	0.726	0.271	1.00	Yes	1.00	**3.56**
		$U_{25} - L_{25}$	-----	-471.96	307	-304	81	-78	81	-27	-121	33	-----	-----	-----	-----	-----	-----	-----	-----	0.710	0.088	0.8	Yes	0.705	0.295	1.00	Yes	1.00	**3.08**
		$U_{26} - L_{26}$	-----	-599.87	402	-452	135	-134	-64	12	-153	22	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.085	0.89	Yes	0.764	0.231	1.00	Yes	1.00	**2.35**
		$U_{27} - L_{27}$	-----	-630.58	568	-569	157	-155	-98	55	-148	43	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.082	0.87	Yes	0.734	0.264	1.00	Yes	1.00	**2.44**
		$U_{28} - L_{28}$	-----	-723.89	522	-498	128	-107	4	132	-121	38	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.075	0.92	Yes	0.776	0.221	1.00	Yes	1.00	**2.77**
		$U_{29} - L_{29}$	-----	-698.94	677	-675	222	-242	111	118	-198	-42	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.143	0.93	Yes	0.674	0.324	1.00	Yes	1.00	**2.92**
		$U_{30} - L_{30}$	-----	-1187.69	425	-430	-457	403	558	202	-807	-375	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.127	1	Yes	0.788	0.081	0.87	Yes	1.00	**4.18**
		$U_{31} - L_{31}$	-----	-741.90	-187	189	-584	584	-113	-43	-195	-140	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.148	0.98	Yes	0.715	0.280	1.00	Yes	1.00	**2.84**
		$U_{32} - L_{32}$	-----	-903.97	-123	88	-484	447	-183	-107	-294	-195	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.133	1	Yes	0.784	0.207	1.00	Yes	1.00	**3.06**
		$U_{33} - L_{33}$	-----	-774.88	-162	158	-397	408	-103	-19	-1171	-204	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.216	1	Yes	0.724	0.180	0.91	Yes	1.00	**2.73**
		$U_{34} - L_{34}$	-----	-813.63	-156	162	-504	521	-102	19	143	-158	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.079	0.89	Yes	0.761	0.230	1.00	Yes	1.00	**4.64**
		$U_{35} - L_{35}$	-----	-710.34	-180	186	-514	557	-105	35	48	293	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.084	0.88	Yes	0.761	0.236	1.00	Yes	1.00	**4.45**
		$U_{36} - L_{36}$	-----	-473.27	-103	116	-343	360	-103	47	-52	193	-----	-----	-----	-----	-----	-----	-----	-----	0.686	0.101	0.79	Yes	0.682	0.315	1.00	Yes	1.00	**3.47**
		$U_{37} - L_{37}$	-----	-284.14	-57	68	-114	135	-1216	-48	-149	-6	-----	-----	-----	-----	-----	-----	-----	-----	0.642	0.352	1	Yes	0.601	0.172	0.78	Yes	1.00	**3.30**
		$U_{38} - L_{38}$	219.81	-226.04	256	-257	-153	168	-936	-608	-117	-29	0.395	0.599	1.00	Yes	0.217	0.329	0.55	Yes	0.509	0.401	0.91	Yes	0.478	0.328	0.81	Yes	1.00	**7.03**
		$U_{39} - L_{39}$	126.77	-301.42	196	-218	-97	95	-640	-419	-150	-49	0.228	0.464	0.70	Yes	0.125	0.255	0.39	Yes	0.681	0.310	1	Yes	0.638	0.278	0.92	Yes	1.00	**4.59**
		$U_{40} - L_{40}$	33.76	-329.58	232	-232	-20	12	-57	-128	-129	-59	0.061	0.334	0.40	Yes	0.033	0.184	0.22	Yes	0.747	0.126	0.88	Yes	0.697	0.297	1.00	Yes	1.00	**3.09**
		$U_{41} - L_{41}$	-----	-487.90	236	-252	27	-34	-91	-112	-102	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.101	0.94	Yes	0.765	0.230	1.00	Yes	1.00	**2.94**
		$U_{42} - L_{42}$	-----	-581.16	492	-501	71	-81	-79	-23	-83	-55	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.080	0.86	Yes	0.741	0.256	1.00	Yes	1.00	**3.32**
		$U_{43} - L_{43}$	-----	-706.70	521	-554	107	-124	460	242	-58	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.145	0.96	Yes	0.757	0.235	1.00	Yes	1.00	**3.54**
		$U_{44} - L_{44}$	-----	-661.42	441	-566	179	-219	661	112	-60	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.200	1	Yes	0.709	0.240	0.95	Yes	1.00	**2.62**
	Structure 3	$U_0 - L_0$	-----	-576.75	-98	161	-364	457	-244	-32	-729	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.228	1	Yes	0.671	0.212	0.89	Yes	1.00	**2.70**
		$U_1 - L_1$	-----	-632.23	-104	111	-418	453	8	-74	-783	-209	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.204	1	Yes	0.736	0.210	0.95	Yes	1.00	**3.65**
		$U_2 - L_2$	-----	-543.93	-81	86	-389	418	92	37	-721	-182	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.189	0.99	Yes	0.757	0.237	1.00	Yes	1.00	**3.79**
		$U_3 - L_3$	-----	-448.62	-28	39	-192	215	5	124	-45	171	-----	-----	-----	-----	-----	-----	-----	-----	0.839	0.109	0.95	Yes	0.774	0.218	1.00	Yes	1.00	**3.32**
		$U_4 - L_4$	0.48	-332.75	-8	12	-216	230	-97	62	-155	189	0.001	0.349	0.35	Yes	0.000	0.192	0.20	Yes	0.750	0.102	0.86	Yes	0.704	0.294	1.00	Yes	1.00	**3.93**
		$U_5 - L_5$	49.44	-304.00	35	-33	-264	277	-115	23	-163	172	0.089	0.404	0.50	Yes	0.049	0.222	0.28	Yes	0.681	0.129	0.81	Yes	0.643	0.355	1.00	Yes	1.00	**4.64**
		$U_6 - L_6$	-----	-265.56	130	-143	34	-37	-1391	-232	-149	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.593	0.406	1	Yes	0.562	0.183	0.75	Yes	1.00	**3.53**
		$U_7 - L_7$	-----	-358.27	255	-271	61	-73	-187	-173	-163	-111	-----	-----	-----	-----	-----	-----	-----	-----	0.724	0.148	0.88	Yes	0.686	0.309	1.00	Yes	1.00	**2.38**
		$U_8 - L_8$	-----	-520.31	321	-327	103	-100	-218	-182	-196	-126	-----	-----	-----	-----	-----	-----	-----	-----	0.752	0.124	0.88	Yes	0.714	0.279	1.00	Yes	1.00	**3.04**
		$U_9 - L_9$	-----	-652.88	412	-503	122	-164	57	17	-154	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.098	0.89	Yes	0.760	0.234	1.00	Yes	1.00	**3.07**
		$U_{10} - L_{10}$	-----	-805.00	384	-394	120	-125	136	179	-88	12	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.078	0.92	Yes	0.794	0.204	1.00	Yes	1.00	**3.49**
		$U_{11} - L_{11}$	-----	-631.43	425	-501	185	-216	-72	294	-39	68	-----	-----	-----	-----	-----	-----	-----	-----	0.753	0.123	0.88	Yes	0.713	0.278	1.00	Yes	1.00	**2.33**
		$U_{12} - L_{12}$	-----	-1222.25	361	-488	-263	271	837	320	-902	-208	-----	-----	-----	-----	-----	-----	-----	-----	0.882	0.111	1	Yes	0.847	0.091	0.94	Yes	1.00	**4.54**
		$U_{13} - L_{13}$	-----	-449.46	-106	117	-287	311	-140	-95	-162	-137	-----	-----	-----	-----	-----	-----	-----	-----	0.751	0.148	0.9	Yes	0.693	0.306	1.00	Yes	1.00	**2.27**
		$U_{14} - L_{14}$	-----	-549.91	-63	59	-234	233	-163	-132	-275	-211	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.128	0.97	Yes	0.789	0.205	1.00	Yes	1.00	**2.89**
		$U_{15} - L_{15}$	-----	-434.78	-51	56	-233	243	-141	-63	-199	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.114	0.91	Yes	0.750	0.247	1.00	Yes	1.00	**2.44**
		$U_{16} - L_{16}$	-----	-247.16	-52	52	-169	176	-162	-84	-1535	-445	-----	-----	-----	-----	-----	-----	-----	-----	0.543	0.456	1	Yes	0.523	0.224	0.75	Yes	1.00	**2.94**
		$U_{17} - L_{17}$	215.04	-266.23	324	-337	-205	234	-283	-320	-117	88	0.387	0.523	0.91	Yes	0.213	0.288	0.51	Yes	0.583	0.203	0.79	Yes	0.563	0.431	1.00	Yes	1.00	**7.89**
		$U_{18} - L_{18}$	137.07	-301.46	239	-283	-134	147	-282	-182	-108	-40	0.247	0.443	0.69	Yes	0.136	0.244	0.38	Yes	0.659	0.176	0.84	Yes	0.638	0.362	1.00	Yes	1.00	**5.78**
		$U_{19} - L_{19}$	44.94	-322.74	245	-247	-55	41	149	53	-169	-95	0.081	0.365	0.45	Yes	0.044	0.201	0.25	Yes	0.705	0.134	0.84	Yes	0.683	0.316	1.00	Yes	1.00	**3.46**
		$U_{20} - L_{20}$	-----	-332.76	162	-229	37	-37	343	110	-224	-72	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.205	0.95	Yes	0.704	0.293	1.00	Yes	1.00	**2.24**

Moment (Start) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Diagonals	Structure 1	$U_0 - L_1$	574.27	-111.75	20	-18	-116	66	-40	-2	-416	-198	0.753	0.240	1.00	Yes	0.455	0.132	0.59	Yes	0.191	0.177	0.37	Yes	0.172	0.135	0.31	Yes	1.00	**4.79**
		$U_1 - L_2$	429.29	-149.48	30	-23	-100	26	-89	-36	-320	-222	0.772	0.220	1.00	Yes	0.425	0.121	0.55	Yes	0.343	0.203	0.55	Yes	0.316	0.128	0.45	Yes	1.00	**5.10**
		$U_2 - L_3$	394.72	-272.29	59	-26	-114	17	148	110	-385	-494	0.710	0.288	1.00	Yes	0.390	0.159	0.55	Yes	0.627	0.326	0.96	Yes	0.576	0.145	0.73	Yes	1.00	**6.78**
		$U_3 - L_4$	57.21	-306.80	54	-11	-85	-119	96	255	-460	-384	0.103	0.285	0.39	Yes	0.057	0.157	0.22	Yes	0.702	0.289	1	Yes	0.649	0.152	0.81	Yes	1.00	**5.71**
		$U_4 - L_4$	556.97	-----	-5	61	-109	0	311	228	-96	-159	0.817	0.183	1.00	Yes	0.449	0.101	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.16**
		$U_5 - L_5$	557.50	-----	-17	157	-206	194	491	384	-1182	-110	0.659	0.332	1.00	Yes	0.363	0.183	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.84**
		$U_7 - L_6$	649.48	-----	-78	85	-281	261	296	170	371	-25	0.768	0.228	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.58**
		$U_8 - L_7$	617.68	-----	22	179	-95	302	528	264	78	152	0.730	0.268	1.00	Yes	0.402	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.92**
		$U_9 - L_9$	928.10	-----	79	229	-81	372	655	327	244	365	0.742	0.249	1.00	Yes	0.460	0.141	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.01**
		$U_9 - L_{10}$	1012.18	-----	-75	124	-318	263	112	138	168	316	0.809	0.182	1.00	Yes	0.501	0.102	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.42**
		$U_{10} - L_{11}$	1017.91	-----	-35	145	-277	191	34	30	-70	-11	0.860	0.137	1.00	Yes	0.532	0.076	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.27**
		$U_{11} - L_{12}$	812.57	-----	-60	80	-273	114	-101	-73	-405	-409	0.804	0.188	1.00	Yes	0.442	0.103	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.11**
		$U_{12} - L_{13}$	622.04	-----	-72	51	-192	167	-229	-195	-357	-330	0.758	0.237	1.00	Yes	0.477	0.134	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.84**
		$U_{13} - L_{14}$	427.88	-----	-27	10	-104	25	-210	-207	-308	-330	0.770	0.229	1.00	Yes	0.423	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.58**
		$U_{15} - L_{14}$	342.87	-166.35	31	-47	-159	-63	-3	-71	-592	-583	0.617	0.374	1.00	Yes	0.339	0.206	0.55	Yes	0.390	0.411	0.81	Yes	0.352	0.203	0.56	Yes	1.00	**6.93**
		$U_{16} - L_{15}$	400.52	-36.79	-5	-11	-134	92	-42	-82	-352	-351	0.720	0.273	1.00	Yes	0.396	0.150	0.55	Yes	0.087	0.188	0.28	Yes	0.078	0.171	0.25	Yes	1.00	**4.17**
		$U_{17} - L_{16}$	492.90	-----	-24	6	-145	84	-23	-94	-175	-554	0.723	0.276	1.00	Yes	0.398	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.83**
		$U_{18} - L_{17}$	640.50	-----	-93	56	-341	263	4	-43	-258	-226	0.757	0.240	1.00	Yes	0.416	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		$U_{19} - L_{18}$	693.85	-----	-100	64	-349	257	39	0	-365	-140	0.752	0.239	1.00	Yes	0.413	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.54**
		$U_{20} - L_{19}$	680.86	-----	-125	103	-363	311	0	28	-456	-80	0.737	0.261	1.00	Yes	0.406	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
	Structure 2	$U_0 - L_1$	752.25	-----	-47	57	-380	367	-126	61	-495	-156	0.744	0.251	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		$U_1 - L_2$	738.94	-----	-66	41	-370	285	60	20	-628	-254	0.731	0.266	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.34**
		$U_2 - L_3$	608.96	-----	-38	27	-337	255	-63	-186	-469	-182	0.720	0.276	1.00	Yes	0.396	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		$U_3 - L_4$	552.40	-----	-12	-1	-180	118	-237	-222	-430	-200	0.736	0.255	1.00	Yes	0.405	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		$U_4 - L_5$	392.33	-77.00	21	-24	-132	88	-210	-149	-429	-398	0.706	0.293	1.00	Yes	0.388	0.161	0.55	Yes	0.190	0.226	0.42	Yes	0.163	0.169	0.34	Yes	1.00	**4.09**
		$U_5 - L_6$	361.98	-196.02	61	-59	-128	62	-102	-21	-607	-459	0.651	0.339	1.00	Yes	0.358	0.187	0.55	Yes	0.463	0.348	0.82	Yes	0.415	0.164	0.58	Yes	1.00	**5.76**
		$U_6 - L_7$	52.16	-277.05	56	-60	-86	-43	-78	17	-362	-972	0.085	0.351	0.44	Yes	0.047	0.193	0.24	Yes	0.593	0.407	1	Yes	0.531	0.098	0.63	Yes	1.00	**5.35**
		$U_8 - L_7$	583.10	-----	-58	47	-217	108	-26	-113	-286	-264	0.743	0.252	1.00	Yes	0.468	0.142	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.84**
		$U_8 - L_8$	694.87	-----	-118	142	-336	236	244	117	-284	-433	0.753	0.243	1.00	Yes	0.414	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.32**
		$U_{10} - L_9$	774.08	-----	-92	138	-322	198	286	189	-35	-561	0.766	0.233	1.00	Yes	0.421	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.94**
		$U_{11} - L_{10}$	855.48	-----	-100	165	-356	290	460	317	-29	-76	0.779	0.214	1.00	Yes	0.429	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.12**
		$U_{12} - L_{11}$	882.16	-----	-121	174	-349	352	313	204	256	162	0.804	0.192	1.00	Yes	0.442	0.106	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.43**
		$U_{13} - L_{12}$	752.27	-----	-180	174	-428	390	351	183	348	202	0.744	0.251	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.21**
		$U_{14} - L_{13}$	731.11	-----	-19	192	-267	426	511	166	1	135	0.723	0.274	1.00	Yes	0.398	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.18**
		$U_{14} - L_{15}$	629.04	-----	60	73	-209	377	26	-25	99	181	0.744	0.246	1.00	Yes	0.409	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		$U_{15} - L_{16}$	631.31	-----	-67	72	-379	352	9	34	195	173	0.746	0.250	1.00	Yes	0.411	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.75**
		$U_{16} - L_{17}$	726.21	-----	-52	105	-324	383	-6	14	99	77	0.787	0.212	1.00	Yes	0.433	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.65**
		$U_{17} - L_{18}$	688.68	-----	-53	104	-309	304	-27	6	-1	-5	0.814	0.180	1.00	Yes	0.448	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.56**
		$U_{18} - L_{19}$	565.48	-----	-28	102	-268	270	-18	6	-966	-67	0.669	0.328	1.00	Yes	0.368	0.180	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.28**
		$U_{19} - L_{20}$	577.66	-----	-15	68	-211	182	-1	57	-343	-306	0.737	0.259	1.00	Yes	0.405	0.146	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.10**
		$U_{20} - L_{21}$	419.08	-----	-16	35	-120	106	18	31	-319	-262	0.754	0.245	1.00	Yes	0.415	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.27**
		$U_{21} - L_{22}$	370.16	-----	0	24	-149	6	34	135	-465	-417	0.666	0.325	1.00	Yes	0.366	0.179	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.00**
		$U_{22} - L_{22}$	376.08	-7.96	11	15	-160	5	255	243	-315	-394	0.676	0.319	1.00	Yes	0.372	0.176	0.55	Yes	0.019	0.224	0.25	Yes	0.017	0.205	0.23	Yes	1.00	**5.52**
		$U_{24} - L_{23}$	428.57	-----	-8	26	-123	104	229	142	-168	-204	0.771	0.223	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.57**
		$U_{25} - L_{24}$	550.73	-----	-14	57	-200	146	251	162	-47	-563	0.702	0.294	1.00	Yes	0.386	0.168	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.48**
		$U_{26} - L_{25}$	662.45	-----	-28	102	-291	264	287	197	-14	-92	0.783	0.217	1.00	Yes	0.431	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.57**
		$U_{27} - L_{26}$	660.35	-----	-64	108	-293	286	264	160	230	102	0.781	0.213	1.00	Yes	0.429	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.33**
		$U_{28} - L_{27}$	699.40	-----	-79	125	-315	369	261	179	271	177	0.758	0.233	1.00	Yes	0.417	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.40**
		$U_{29} - L_{28}$	617.23	-----	-116	114	-362	332	303	143	334	-83	0.730	0.266	1.00	Yes	0.401	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.17**
		$U_{30} - L_{29}$	604.14	-----	22	132	-196	348	460	111	7	146	0.714	0.280	1.00	Yes	0.393	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.52**
		$U_{30} - L_{31}$	761.95	-----	23	127	-284	468	126	32	15	142	0.754	0.238	1.00	Yes	0.415	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.66**
		$U_{31} - L_{32}$	768.94	-----	-122	124	-448	403	53	61	179	144	0.761	0.235	1.00	Yes	0.418	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.70**
		$U_{32} - L_{33}$	916.09	-----	-80	141	-359	364	8	29	26	32	0.835	0.159	1.00	Yes	0.459	0.087	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.89**
		$U_{33} - L_{34}$	874.76	-----	-65	149	-364	269	7	39	-344	-175	0.797	0.202	1.00	Yes	0.438	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.90**
		$U_{34} - L_{35}$	774.15	-----	-70	144	-335	203	-4	19	-429	-473	0.766	0.226	1.00	Yes	0.421	0.124	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.08**
		$U_{35} - L_{36}$	675.25	-----	-114	143	-332	234	-62	-16	-544	-440	0.731	0.259	1.00	Yes	0.402	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.53**
		$U_{36} - L_{37}$	520.85	-----	-59	55	-190	105	-215	-206	-332	-790	0.664	0.331	1.00	Yes	0.418	0.190	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.27**
		$U_{38} - L_{37}$	141.82	-357.90	80	-69	-132	-35	101	103	-380	-331	0.231	0.249	0.49	Yes	0.127	0.137	0.27	Yes	0.773	0.223	1	Yes	0.686	0.150	0.84	Yes	1.00	**7.26**
		$U_{39} - L_{38}$	387.34	-224.45	69	-65	-125	63	77	7	-254	-476	0.697	0.298	1.00	Yes	0.383	0.164	0.55	Yes	0.535	0.230	0.77	Yes	0.475	0.160	0.64	Yes	1.00	**5.52**
		$U_{40} - L_{39}$	369.47	-85.14	19	-27	-127	69	28	-12	-50	-598	0.665	0.335	1.00	Yes	0.365	0.184	0.55	Yes	0.204	0.223	0.43	Yes	0.180	0.162	0.35	Yes	1.00	**3.31**
		$U_{41} - L_{40}$	585.40	-----	-13	-5	-190	140	27	-5	-170	-187	0.780	0.213	1.00	Yes	0.429	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.24**
		$U_{42} - L_{41}$	654.33	-----	-51	30	-348	271	-5	2	-123	-151	0.774	0.224	1.00	Yes	0.425	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		$U_{43} - L_{42}$	776.17	-----	-71	44	-390	311	-18	-44	-326	-88	0.768	0.230	1.00	Yes	0.422	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.65**
		$U_{44} - L_{43}$	770.39	-----	-124	105	-376	367	34	-10	-403	-19	0.762	0.235	1.00	Yes	0.419	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.49**
	Structure 3	$U_0 - L_1$	658.76	-----	-64	67	-372	310	-137	43	-570	-185	0.714	0.284	1.00	Yes	0.392	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.56**
		$U_1 - L_2$	661.67	-----	-85	52	-331	234	35	10	-685	-273	0.717	0.282	1.00	Yes	0.394	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_2 - L_3$	593.36	-----	-68	40	-339	244	-75	-172	-576	-260	0.702	0.296	1.00	Yes	0.386	0.163	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.00**
		$U_3 - L_4$	505.75	-----	-15	3	-151	103	-217	-204	-418	-397	0.742	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.61**
		$U_4 - L_5$	381.14	-19.77	-6	-6	-126	91	-227	-160	-507	-400	0.685	0.308	1.00	Yes	0.377	0.170	0.55	Yes	0.047	0.223	0.28	Yes	0.042	0.161	0.21	Yes	1.00	**3.94**
		$U_5 - L_6$	325.84	-145.25	27	-45	-148	-66	-169	-98	-746	-603	0.586	0.405	1.00	Yes	0.322	0.223	0.55	Yes	0.340	0.468	0.81	Yes	0.307	0.189	0.50	Yes	1.00	**6.52**
		$U_7 - L_6$	435.68	-----	-23	6	-105	23	-27	-144	-130	-273	0.784	0.213	1.00	Yes	0.431	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.77**
		$U_8 - L_7$	641.21	-----	-65	62	-196	171	71	-15	-164	-230	0.782	0.216	1.00	Yes	0.492	0.121	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.02**
		$U_8 - L_9$	788.50	-----	-57	67	-279	83	246	130	-118	-587	0.780	0.217	1.00	Yes	0.429	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.54**
		$U_{10} - L_9$	980.69	-----	-47	123	-249	190	392	305	28	-76	0.828	0.167	1.00	Yes	0.513	0.094	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.07**
		$U_{11} - L_{10}$	967.54	-----	-95	133	-305	249	490	306	369	647	0.773	0.218	1.00	Yes	0.479	0.124	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		$U_{12} - L_{11}$	932.73	-----	55	216	-81	367	678	331	151	306	0.746	0.250	1.00	Yes	0.462	0.141	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.73**
		$U_{12} - L_{13}$	612.89	-----	40	197	-96	300	564	257	101	175	0.725	0.274	1.00	Yes	0.399	0.150	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.72**
		$U_{13} - L_{14}$	668.04	-----	-62	115	-286	293	152	198	237	212	0.790	0.210	1.00	Yes	0.434	0.115	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.32**
		$U_{14} - L_{15}$	695.87	-----	-15	148	-189	233	198	194	-183	-213	0.823	0.172	1.00	Yes	0.452	0.094	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.79**
		$U_{15} - L_{16}$	558.76	-----	-6	67	-111	-2	137	173	-271	-218	0.819	0.176	1.00	Yes	0.451	0.097	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		$U_{17} - L_{16}$	75.79	-327.46	58	-5	-95	-117	267	290	-313	-363	0.136	0.255	0.40	Yes	0.075	0.140	0.22	Yes	0.749	0.244	1	Yes	0.693	0.150	0.85	Yes	1.00	**6.19**
		$U_{18} - L_{17}$	24.75	-223.39	41	-27	-87	-25	96	157	-1326	-189	0.045	0.495	0.54	Yes	0.024	0.272	0.30	Yes	0.514	0.483	1	Yes	0.473	0.111	0.59	Yes	1.00	**4.68**
		$U_{19} - L_{18}$	414.03	-118.12	27	-21	-89	0	37	-1	-232	-459	0.745	0.246	1.00	Yes	0.410	0.135	0.55	Yes	0.271	0.208	0.48	Yes	0.250	0.113	0.37	Yes	1.00	**3.80**
		$U_{20} - L_{19}$	617.59	-70.14	-20	-1	-78	64	31	-19	-379	-196	0.810	0.187	1.00	Yes	0.489	0.103	0.60	Yes	0.120	0.142	0.27	Yes	0.108	0.092	0.20	Yes	1.00	**4.01**

Moment (Start) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Upper Chord	Structure 1	$U_0 - U_1$	-----	-578.56	870	-914	-598	-16	675	-851	-124	121	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.123	0.91	Yes	0.780	0.217	1.00	Yes	1.00	**6.49**
		$U_1 - U_2$	60.07	-511.20	-95	134	-322	-705	-165	159	-81	-509	0.069	0.254	0.33	Yes	0.047	0.173	0.23	Yes	0.696	0.300	1	Yes	0.689	0.168	0.86	Yes	1.00	**2.86**
		$U_2 - U_3$	281.60	-578.91	-49	406	-757	-197	-126	188	560	-611	0.323	0.283	0.61	Yes	0.218	0.186	0.41	Yes	0.788	0.204	1	Yes	0.781	0.180	0.97	Yes	1.00	**3.86**
		$U_3 - U_4$	695.97	-571.50	250	561	-532	-290	-255	5	-246	-391	0.798	0.199	1.00	Yes	0.547	0.136	0.69	Yes	0.778	0.186	0.97	Yes	0.771	0.133	0.91	Yes	1.00	**5.65**
		$U_4 - U_5$	683.70	-547.00	307	532	-611	-164	-116	7	-365	-168	0.784	0.207	1.00	Yes	0.538	0.142	0.68	Yes	0.744	0.206	0.96	Yes	0.738	0.145	0.89	Yes	1.00	**5.50**
		$U_5 - U_6$	737.56	-70.59	314	527	-356	308	95	140	-105	-170	0.845	0.154	1.00	Yes	0.570	0.100	0.68	Yes	0.096	0.149	0.25	Yes	0.095	0.125	0.23	Yes	1.00	**4.20**
		$U_6 - U_7$	891.90	-----	435	209	-18	75	297	354	-97	11	0.853	0.141	1.00	Yes	0.596	0.097	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		$U_7 - U_8$	938.79	-----	136	887	-575	1738	838	778	249	506	0.650	0.348	1.00	Yes	0.454	0.238	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.70**
		$U_8 - U_9$	803.42	-----	1593	-568	804	-262	588	49	280	572	0.658	0.339	1.00	Yes	0.450	0.231	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.01**
		$U_9 - U_{10}$	642.18	-----	836	-800	93	-18	709	-500	61	144	0.697	0.301	1.00	Yes	0.472	0.202	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**15.63**
		$U_{10} - U_{11}$	-----	-566.39	481	-1026	116	-480	308	-770	346	290	-----	-----	-----	-----	-----	-----	-----	-----	0.729	0.265	1	Yes	0.723	0.230	0.96	Yes	1.00	**6.10**
		$U_{11} - U_{12}$	-----	-914.83	139	-217	-16	-803	12	93	80	-230	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.126	1	Yes	0.858	0.133	1.00	Yes	1.00	**2.10**
		$U_{12} - U_{13}$	-----	-1267.06	-59	-272	-496	-598	75	3	729	-460	-----	-----	-----	-----	-----	-----	-----	-----	0.857	0.134	1	Yes	0.846	0.082	0.93	Yes	1.00	**2.52**
		$U_{13} - U_{14}$	-----	-1442.34	-194	-501	-552	-1110	-47	-14	-54	-281	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.164	1	Yes	0.827	0.122	0.95	Yes	1.00	**2.63**
		$U_{14} - U_{15}$	-----	-1435.97	-403	-290	-1065	-673	35	-276	-175	-276	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.166	1	Yes	0.823	0.117	0.95	Yes	1.00	**2.61**
		$U_{15} - U_{16}$	-----	-1474.55	-198	-465	-734	-771	-110	-417	-318	-280	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.141	1	Yes	0.845	0.085	0.94	Yes	1.00	**2.94**
		$U_{16} - U_{17}$	-----	-1449.22	-397	-204	-1021	-424	-134	-288	-194	-205	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.155	1	Yes	0.831	0.113	0.95	Yes	1.00	**3.56**
		$U_{17} - U_{18}$	-----	-1056.77	-255	-59	-657	10	-112	72	-132	-14	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.157	1	Yes	0.827	0.107	0.94	Yes	1.00	**3.24**
		$U_{18} - U_{19}$	-----	-704.10	-245	13	-651	115	365	-141	198	-238	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.194	1	Yes	0.792	0.131	0.93	Yes	1.00	**3.26**
		$U_{19} - U_{20}$	-----	-601.14	-208	-68	-1063	-191	-52	-109	-128	-39	-----	-----	-----	-----	-----	-----	-----	-----	0.683	0.310	1	Yes	0.676	0.214	0.90	Yes	1.00	**8.78**
	Structure 2	$U_0 - U_1$	-----	-543.33	2075	-1761	-724	-425	1279	-511	-429	697	-----	-----	-----	-----	-----	-----	-----	-----	0.646	0.243	0.89	Yes	0.642	0.352	1.00	Yes	1.00	**6.10**
		$U_1 - U_2$	-----	-795.44	-45	-580	-279	-872	284	632	249	-311	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.218	1	Yes	0.768	0.132	0.91	Yes	1.00	**4.21**
		$U_2 - U_3$	-----	-1207.29	-78	-714	-262	-878	-238	-354	280	-606	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.134	1	Yes	0.857	0.089	0.95	Yes	1.00	**6.70**
		$U_3 - U_4$	-----	-1427.67	-518	-501	-894	-1284	-122	-25	-9	-343	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.176	1	Yes	0.813	0.114	0.93	Yes	1.00	**2.34**
		$U_4 - U_5$	-----	-1558.44	-565	-511	-1106	-1386	-130	-71	10	-618	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.189	1	Yes	0.800	0.115	0.92	Yes	1.00	**2.29**
		$U_5 - U_6$	-----	-1610.62	-546	49	-1260	-836	-197	-38	-220	-439	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.157	1	Yes	0.827	0.104	0.94	Yes	1.00	**2.30**
		$U_6 - U_7$	-----	-1403.57	-298	-196	-1074	-1230	-170	-88	-188	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.188	1	Yes	0.799	0.110	0.91	Yes	1.00	**2.11**
		$U_7 - U_8$	-----	-1408.30	-334	-180	-1393	-869	-79	-174	-263	-379	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.189	1	Yes	0.802	0.124	0.93	Yes	1.00	**2.13**
		$U_8 - U_9$	-----	-1230.79	-323	243	-1216	-312	-15	-192	-251	-309	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.153	1	Yes	0.835	0.129	0.97	Yes	1.00	**2.48**
		$U_9 - U_{10}$	354.02	-951.54	-40	583	-1241	-26	-131	-244	-483	-487	0.260	0.204	0.47	Yes	0.176	0.138	0.32	Yes	0.826	0.168	1	Yes	0.821	0.151	0.98	Yes	1.00	**3.18**
		$U_{10} - U_{11}$	877.96	-624.88	395	647	-1108	-43	-216	-113	-821	-356	0.742	0.256	1.00	Yes	0.505	0.169	0.68	Yes	0.625	0.213	0.84	Yes	0.621	0.156	0.78	Yes	1.00	**4.42**
		$U_{11} - U_{12}$	970.16	-----	240	676	-862	507	21	29	-424	-437	0.819	0.175	1.00	Yes	0.550	0.117	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.58**
		$U_{12} - U_{13}$	1296.75	-----	507	53	-323	-111	313	516	-605	-55	0.876	0.121	1.00	Yes	0.624	0.084	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.09**
		$U_{13} - U_{14}$	1215.92	-----	-10	1831	-1193	3506	845	1031	208	726	0.598	0.395	1.00	Yes	0.423	0.260	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.68**
		$U_{14} - U_{15}$	1294.94	-----	3245	-425	1847	-226	804	444	561	696	0.637	0.355	1.00	Yes	0.451	0.233	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.09**
		$U_{15} - U_{16}$	1463.42	-----	127	-184	-107	-599	457	389	516	-213	0.885	0.112	1.00	Yes	0.629	0.076	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.32**
		$U_{16} - U_{17}$	1075.85	-----	1003	-345	346	-127	417	-401	341	733	0.793	0.203	1.00	Yes	0.527	0.133	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.50**
		$U_{17} - U_{18}$	718.40	-----	1081	-701	132	-168	339	-231	359	643	0.721	0.278	1.00	Yes	0.480	0.183	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.97**
		$U_{18} - U_{19}$	845.11	-303.44	590	356	110	-466	-65	196	176	-315	0.848	0.146	1.00	Yes	0.557	0.094	0.66	Yes	0.361	0.116	0.48	Yes	0.358	0.100	0.46	Yes	1.00	**4.65**
		$U_{19} - U_{20}$	399.18	-728.55	276	175	-213	-934	-108	128	-51	-388	0.374	0.202	0.58	Yes	0.248	0.133	0.39	Yes	0.809	0.189	1	Yes	0.804	0.150	0.96	Yes	1.00	**2.77**
		$U_{20} - U_{21}$	350.74	-898.22	157	81	-767	-515	-69	48	583	-510	0.272	0.175	0.45	Yes	0.190	0.115	0.31	Yes	0.826	0.172	1	Yes	0.820	0.111	0.94	Yes	1.00	**3.00**
		$U_{21} - U_{22}$	301.56	-881.16	28	83	-581	-804	-191	-54	-92	-249	0.234	0.144	0.38	Yes	0.166	0.096	0.27	Yes	0.810	0.184	1	Yes	0.804	0.117	0.93	Yes	1.00	**2.90**
		$U_{22} - U_{23}$	292.05	-866.54	85	16	-871	-642	-92	-139	-194	-185	0.227	0.147	0.38	Yes	0.161	0.099	0.26	Yes	0.797	0.194	1	Yes	0.791	0.126	0.92	Yes	1.00	**2.85**
		$U_{23} - U_{24}$	446.89	-891.13	144	206	-872	-301	9	-46	-359	-153	0.347	0.166	0.52	Yes	0.243	0.108	0.36	Yes	0.819	0.179	1	Yes	0.813	0.126	0.94	Yes	1.00	**3.65**
		$U_{24} - U_{25}$	807.64	-552.02	429	466	-946	96	26	-20	-610	-294	0.757	0.234	1.00	Yes	0.502	0.153	0.66	Yes	0.613	0.208	0.83	Yes	0.609	0.151	0.77	Yes	1.00	**5.51**
		$U_{25} - U_{26}$	800.82	-366.34	359	548	-757	445	30	-8	-439	-275	0.804	0.193	1.00	Yes	0.527	0.123	0.66	Yes	0.435	0.172	0.61	Yes	0.433	0.128	0.57	Yes	1.00	**4.88**
		$U_{26} - U_{27}$	850.22	-----	401	418	-446	434	24	67	-470	-166	0.853	0.145	1.00	Yes	0.568	0.095	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.30**
		$U_{27} - U_{28}$	1121.16	-----	328	599	-618	972	346	399	-420	-301	0.826	0.166	1.00	Yes	0.550	0.109	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.57**
		$U_{28} - U_{29}$	1143.17	-----	1364	366	-799	-307	1027	1754	-928	-1039	0.691	0.303	1.00	Yes	0.492	0.208	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.84**
		$U_{29} - U_{30}$	1294.32	-----	-8	1717	-326	3092	809	1032	527	1055	0.636	0.358	1.00	Yes	0.451	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.99**
		$U_{30} - U_{31}$	1260.46	-----	3424	-943	1922	-530	771	100	875	848	0.620	0.377	1.00	Yes	0.439	0.247	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.33**
		$U_{31} - U_{32}$	1266.36	-----	84	389	-351	31	197	387	999	8	0.855	0.144	1.00	Yes	0.610	0.101	0.72	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		$U_{32} - U_{33}$	905.21	-182.02	1009	-379	142	-593	339	-522	346	746	0.765	0.233	1.00	Yes	0.514	0.155	0.67	Yes	0.182	0.166	0.35	Yes	0.181	0.142	0.33	Yes	1.00	**5.56**
		$U_{33} - U_{34}$	1000.39	-579.15	683	401	-147	-784	-29	292	249	330	0.845	0.151	1.00	Yes	0.575	0.098	0.68	Yes	0.579	0.082	0.67	Yes	0.576	0.111	0.69	Yes	1.00	**5.61**
		$U_{34} - U_{35}$	277.36	-1010.52	507	-90	-165	-1018	46	77	347	-522	0.203	0.181	0.39	Yes	0.138	0.122	0.26	Yes	0.877	0.121	1	Yes	0.872	0.124	1.00	Yes	1.00	**3.38**
		$U_{35} - U_{36}$	-----	-1263.99	113	-452	-321	-1090	-15	93	78	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.130	1	Yes	0.857	0.116	0.98	Yes	1.00	**2.09**
		$U_{36} - U_{37}$	-----	-1441.29	-284	-307	-877	-1287	-18	-118	11	-256	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.168	1	Yes	0.821	0.115	0.94	Yes	1.00	**1.92**
		$U_{37} - U_{38}$	-----	-1428.30	-196	-420	-1183	-1065	-94	-194	-171	-341	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.178	1	Yes	0.813	0.105	0.92	Yes	1.00	**1.88**
		$U_{38} - U_{39}$	-----	-1637.40	-127	-616	-937	-1211	13	-201	-227	-326	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.148	1	Yes	0.841	0.100	0.95	Yes	1.00	**2.21**
		$U_{39} - U_{40}$	-----	-1586.53	-579	-559	-1416	-930	23	-61	-287	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.173	1	Yes	0.815	0.117	0.94	Yes	1.00	**2.33**
		$U_{40} - U_{41}$	-----	-1466.88	-493	-481	-1173	-820	107	-148	-109	-191	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.154	1	Yes	0.835	0.105	0.94	Yes	1.00	**2.56**
		$U_{41} - U_{42}$	-----	-1223.84	-396	-136	-1132	-31	71	-23	-187	-148	-----	-----	-----	-----	-----	-----	-----	-----	0.874	0.122	1	Yes	0.869	0.115	0.99	Yes	1.00	**3.10**
		$U_{42} - U_{43}$	-----	-887.86	-255	-29	-904	72	191	-195	-180	-234	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.130	1	Yes	0.857	0.137	1.00	Yes	1.00	**3.67**
		$U_{43} - U_{44}$	-----	-652.31	-119	-267	-1328	7	-128	-128	-112	108	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.216	1	Yes	0.770	0.226	1.00	Yes	1.00	**7.67**
	Structure 3	$U_0 - U_1$	-----	-538.90	1946	-1484	-507	-515	1331	-852	-377	725	-----	-----	-----	-----	-----	-----	-----	-----	0.612	0.293	0.91	Yes	0.606	0.392	1.00	Yes	1.00	**7.48**
		$U_1 - U_2$	-----	-697.64	-58	-207	-125	-608	-40	-117	211	580	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.201	1	Yes	0.785	0.122	0.91	Yes	1.00	**6.41**
		$U_2 - U_3$	-----	-1083.95	35	-596	-97	-387	142	-689	239	164	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.132	1	Yes	0.848	0.097	0.95	Yes	1.00	**2.85**
		$U_3 - U_4$	-----	-1372.89	-211	-397	-458	-1278	-156	-146	-214	-561	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.201	1	Yes	0.787	0.141	0.93	Yes	1.00	**2.67**
		$U_4 - U_5$	-----	-1429.89	-435	-167	-1075	-472	-100	-65	534	-634	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.163	1	Yes	0.820	0.119	0.94	Yes	1.00	**2.63**
		$U_5 - U_6$	-----	-1412.95	-255	-373	-618	-1061	-179	-149	-148	-361	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.176	1	Yes	0.810	0.117	0.93	Yes	1.00	**2.79**
		$U_6 - U_7$	-----	-1397.58	-494	-157	-1227	-512	-121	-300	-260	-365	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.181	1	Yes	0.801	0.135	0.94	Yes	1.00	**2.75**
		$U_7 - U_8$	-----	-1221.42	-237	24	-703	-207	-106	-333	-369	-487	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.169	1	Yes	0.816	0.097	0.92	Yes	1.00	**3.07**
		$U_8 - U_9$	-----	-847.49	-139	237	-658	82	-231	-205	-403	-262	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.192	1	Yes	0.795	0.109	0.91	Yes	1.00	**2.98**
		$U_9 - U_{10}$	253.69	-547.01	-86	359	-915	312	-20	-43	-198	-293	0.275	0.252	0.53	Yes	0.183	0.162	0.35	Yes	0.704	0.286	1	Yes	0.698	0.205	0.91	Yes	1.00	**4.81**
		$U_{10} - U_{11}$	751.57	-----	352	245	-381	313	79	242	-568	-189	0.815	0.177	1.00	Yes	0.552	0.118	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.29**
		$U_{11} - U_{12}$	805.79	-----	-128	860	-687	1547	517	626	52	375	0.660	0.336	1.00	Yes	0.452	0.229	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.87**
		$U_{12} - U_{13}$	957.00	-----	1816	-409	891	-157	239	115	462	561	0.663	0.332	1.00	Yes	0.463	0.227	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		$U_{13} - U_{14}$	856.66	-----	218	364	13	-465	-98	373	-37	-566	0.819	0.177	1.00	Yes	0.573	0.122	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.09**
		$U_{14} - U_{15}$	640.13	-278.36	456	223	26	-367	-54	261	904	-611	0.734	0.261	1.00	Yes	0.495	0.174	0.67	Yes	0.379	0.176	0.56	Yes	0.375	0.108	0.49	Yes	1.00	**4.21**
		$U_{15} - U_{16}$	503.23	-628.78	395	235	-237	-589	-69	277	46	5	0.577	0.187	0.77	Yes	0.396	0.128	0.53	Yes	0.856	0.140	1	Yes	0.848	0.140	0.99	Yes	1.00	**5.03**
		$U_{16} - U_{17}$	623.30	-638.60	570	172	-518	-492	269	-3	145	-185	0.714	0.181	0.90	Yes	0.490	0.124	0.62	Yes	0.869	0.101	0.98	Yes	0.861	0.135	1.00	Yes	1.00	**6.26**
		$U_{17} - U_{18}$	213.41	-644.66	335	-144	-411	-529	87	54	-48	-86	0.245	0.141	0.39	Yes	0.165	0.091	0.26	Yes	0.877	0.090	0.97	Yes	0.869	0.126	1.00	Yes	1.00	**4.28**
		$U_{18} - U_{19}$	58.43	-585.39	83	-64	-642	-153	223	-193	101	-287	0.067	0.201	0.27	Yes	0.046	0.138	0.19	Yes	0.797	0.201	1	Yes	0.789	0.153	0.95	Yes	1.00	**4.20**
		$U_{19} - U_{20}$	94.18	-609.00	192	-364	-588	-551	-144	-113	-168	-58	0.108	0.168	0.28	Yes	0.074	0.115	0.19	Yes	0.829	0.168	1	Yes	0.821	0.140	0.97	Yes	1.00	**8.40**

Moment (Start) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Lower Chord	Structure 1	L_0 - L_1	28.49	-221.04	694	-1156	-307	175	-557	-2046	63	233	0.044	0.786	0.83	Yes	0.026	0.468	0.50	Yes	0.401	0.592	1	Yes	0.398	0.347	0.75	Yes	1.00	**19.72**
		L_1 - L_2	379.97	-51.25	87	-800	-21	64	-821	468	397	-181	0.582	0.416	1.00	Yes	0.355	0.272	0.63	Yes	0.093	0.239	0.34	Yes	0.092	0.240	0.34	Yes	1.00	**3.97**
		L_2 - L_3	638.45	-170.99	-10	109	-730	-508	-194	133	208	-512	0.735	0.259	1.00	Yes	0.425	0.153	0.58	Yes	0.234	0.232	0.47	Yes	0.231	0.176	0.41	Yes	1.00	**3.61**
		L_3 - L_4	666.63	-403.35	49	441	-537	-351	347	-280	-640	288	0.767	0.233	1.00	Yes	0.456	0.146	0.61	Yes	0.551	0.148	0.7	Yes	0.546	0.130	0.68	Yes	1.00	**4.35**
		L_4 - L_5	-----	-574.77	112	468	-341	329	-86	218	225	46	-----	-----	-----	-----	-----	-----	-----	-----	0.884	0.115	1	Yes	0.876	0.124	1.00	Yes	1.00	**2.41**
		L_5 - L_6	-----	-747.17	126	588	-118	377	189	-208	81	-184	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.122	1	Yes	0.862	0.130	1.00	Yes	1.00	**2.24**
		L_6 - L_7	-----	-1173.93	218	-90	-160	226	-242	250	45	290	-----	-----	-----	-----	-----	-----	-----	-----	0.956	0.038	1	Yes	0.945	0.035	0.99	Yes	1.00	**3.58**
		L_7 - L_8	-----	-1231.89	-23	695	-78	1321	445	285	369	467	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.204	1	Yes	0.780	0.175	0.96	Yes	1.00	**2.26**
		L_8 - L_9	-----	-1248.67	1222	-64	705	-34	483	292	243	352	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.193	1	Yes	0.791	0.162	0.96	Yes	1.00	**2.06**
		L_9 - L_{10}	-----	-1094.09	698	-752	166	81	-126	161	448	-267	-----	-----	-----	-----	-----	-----	-----	-----	0.890	0.058	0.95	Yes	0.881	0.118	1.00	Yes	1.00	**6.72**
		L_{10} - L_{11}	111.04	-533.31	678	-638	184	-287	-137	-625	-260	150	0.144	0.289	0.44	Yes	0.084	0.172	0.26	Yes	0.820	0.165	0.99	Yes	0.813	0.179	1.00	Yes	1.00	**6.47**
		L_{11} - L_{12}	413.06	-----	589	-1080	233	-327	-986	822	96	-43	0.535	0.458	1.00	Yes	0.321	0.294	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.96**
		L_{12} - L_{13}	1061.23	-----	46	-161	-427	-548	-157	122	-49	-505	0.837	0.156	1.00	Yes	0.536	0.095	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.22**
		L_{13} - L_{14}	1327.79	-----	182	-526	-107	-1240	147	17	-552	456	0.781	0.217	1.00	Yes	0.506	0.133	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.19**
		L_{14} - L_{15}	1605.40	-----	-496	-169	-1485	-407	-184	93	449	18	0.784	0.211	1.00	Yes	0.510	0.128	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.81**
		L_{15} - L_{16}	1739.79	-----	-278	-435	-930	-1044	-1	-186	-2	340	0.850	0.150	1.00	Yes	0.546	0.088	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.38**
		L_{16} - L_{17}	1278.84	-----	-416	55	-1128	108	-123	174	189	-206	0.809	0.184	1.00	Yes	0.525	0.113	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.00**
		L_{17} - L_{18}	953.11	-----	-225	-17	-673	98	83	-112	-310	-153	0.830	0.169	1.00	Yes	0.531	0.102	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.27**
		L_{18} - L_{19}	459.05	-----	-255	230	-853	479	-163	123	-186	88	0.703	0.295	1.00	Yes	0.475	0.184	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.06**
		L_{19} - L_{20}	70.58	-282.73	-156	55	-1487	992	140	31	-67	-15	0.108	0.475	0.59	Yes	0.066	0.322	0.39	Yes	0.514	0.480	1	Yes	0.509	0.446	0.96	Yes	1.00	**15.24**
	Structure 2	L_0 - L_1	61.57	-401.74	525	-1728	-70	-111	-416	-1443	34	120	0.075	0.589	0.67	Yes	0.044	0.369	0.42	Yes	0.578	0.421	1	Yes	0.574	0.352	0.93	Yes	1.00	**10.91**
		L_1 - L_2	450.36	-----	596	-1477	125	-232	-890	727	169	-114	0.547	0.447	1.00	Yes	0.325	0.282	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.78**
		L_2 - L_3	1046.99	-----	94	-977	-107	-359	297	-126	-167	165	0.825	0.173	1.00	Yes	0.541	0.104	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.85**
		L_3 - L_4	1307.91	-----	42	-941	-135	-1469	315	-16	-606	655	0.768	0.224	1.00	Yes	0.517	0.140	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.29**
		L_4 - L_5	1817.19	-----	-416	-344	-1097	-1243	-97	157	511	82	0.847	0.152	1.00	Yes	0.561	0.092	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.65**
		L_5 - L_6	1889.21	-----	-203	-418	-726	-1751	197	-96	-141	472	0.811	0.185	1.00	Yes	0.544	0.114	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.27**
		L_6 - L_7	1899.44	-----	-525	-172	-1814	-1378	-160	221	363	-563	0.804	0.194	1.00	Yes	0.534	0.115	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.96**
		L_7 - L_8	1386.16	-56.25	-290	413	-1338	-407	226	-138	-596	333	0.795	0.197	1.00	Yes	0.522	0.118	0.64	Yes	0.038	0.146	0.19	Yes	0.038	0.148	0.19	Yes	1.00	**2.79**
		L_8 - L_9	1155.22	-465.36	-53	618	-1110	341	-83	180	395	-146	0.808	0.187	1.00	Yes	0.544	0.117	0.67	Yes	0.386	0.089	0.48	Yes	0.383	0.150	0.54	Yes	1.00	**3.45**
		L_9 - L_{10}	647.36	-790.51	-117	849	-1018	227	135	-176	-131	-84	0.578	0.184	0.77	Yes	0.336	0.115	0.46	Yes	0.836	0.091	0.93	Yes	0.830	0.163	1.00	Yes	1.00	**3.61**
		L_{10} - L_{11}	-----	-752.49	22	563	-633	561	-89	94	23	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.890	0.074	0.97	Yes	0.884	0.111	1.00	Yes	1.00	**2.18**
		L_{11} - L_{12}	-----	-1025.96	-72	1102	-524	878	89	-336	78	-215	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.125	0.98	Yes	0.841	0.150	1.00	Yes	1.00	**2.28**
		L_{12} - L_{13}	-----	-1514.57	130	-820	-516	-168	-355	48	43	215	-----	-----	-----	-----	-----	-----	-----	-----	0.913	0.086	1	Yes	0.906	0.082	0.99	Yes	1.00	**3.51**
		L_{13} - L_{14}	-----	-1499.43	-532	1557	-944	2703	504	462	189	370	-----	-----	-----	-----	-----	-----	-----	-----	0.761	0.190	0.96	Yes	0.754	0.236	1.00	Yes	1.00	**1.88**
		L_{14} - L_{15}	-----	-1516.05	2686	-896	1623	-529	379	222	358	305	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.179	0.95	Yes	0.763	0.235	1.00	Yes	1.00	**1.71**
		L_{15} - L_{16}	-----	-1405.70	-51	-58	-1068	185	341	-528	223	-299	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.144	1	Yes	0.841	0.106	0.95	Yes	1.00	**5.60**
		L_{16} - L_{17}	-----	-1155.78	1205	-351	688	-146	-332	-584	-417	11	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.136	0.99	Yes	0.842	0.149	1.00	Yes	1.00	**2.80**
		L_{17} - L_{18}	-----	-786.06	881	-982	356	82	-641	571	37	-175	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.166	1	Yes	0.825	0.157	0.99	Yes	1.00	**5.68**
		L_{18} - L_{19}	-----	-648.42	683	123	245	-343	-239	38	143	-57	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.107	0.98	Yes	0.864	0.132	1.00	Yes	1.00	**3.62**
		L_{19} - L_{20}	396.46	-633.22	527	327	173	-772	183	-228	-561	378	0.449	0.235	0.69	Yes	0.266	0.147	0.42	Yes	0.849	0.124	0.98	Yes	0.844	0.149	1.00	Yes	1.00	**4.83**
		L_{20} - L_{21}	966.19	-448.91	438	73	-807	-998	-189	42	6	-716	0.770	0.223	1.00	Yes	0.505	0.136	0.65	Yes	0.424	0.181	0.61	Yes	0.421	0.146	0.57	Yes	1.00	**4.18**
		L_{21} - L_{22}	949.36	-278.78	183	16	-594	-1304	143	-189	-488	451	0.757	0.243	1.00	Yes	0.506	0.153	0.66	Yes	0.263	0.193	0.46	Yes	0.262	0.190	0.46	Yes	1.00	**3.53**
		L_{22} - L_{23}	917.52	-342.39	73	188	-1501	-383	-75	190	450	-53	0.732	0.267	1.00	Yes	0.489	0.169	0.66	Yes	0.323	0.214	0.54	Yes	0.321	0.219	0.55	Yes	1.00	**3.98**
		L_{23} - L_{24}	998.15	-701.45	223	586	-1106	-316	155	-168	-74	386	0.796	0.203	1.00	Yes	0.522	0.122	0.65	Yes	0.663	0.136	0.8	Yes	0.658	0.161	0.82	Yes	1.00	**6.43**
		L_{24} - L_{25}	-----	-639.98	257	457	-759	658	-110	147	575	-268	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.086	0.95	Yes	0.853	0.146	1.00	Yes	1.00	**4.93**
		L_{25} - L_{26}	-----	-650.24	120	674	-504	543	100	-168	-101	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.102	0.98	Yes	0.867	0.130	1.00	Yes	1.00	**3.79**
		L_{26} - L_{27}	-----	-845.05	178	398	-410	670	-76	296	112	-29	-----	-----	-----	-----	-----	-----	-----	-----	0.893	0.081	0.98	Yes	0.887	0.107	1.00	Yes	1.00	**3.21**
		L_{27} - L_{28}	-----	-1128.91	115	1135	-442	1430	454	-275	-12	-174	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.141	0.98	Yes	0.822	0.176	1.00	Yes	1.00	**4.71**
		L_{28} - L_{29}	-----	-1491.67	662	-535	-402	-489	86	1065	-245	21	-----	-----	-----	-----	-----	-----	-----	-----	0.900	0.096	1	Yes	0.892	0.066	0.96	Yes	1.00	**5.83**
		L_{29} - L_{30}	-----	-1500.10	-628	1470	-1050	2748	634	722	224	369	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.202	0.97	Yes	0.755	0.240	1.00	Yes	1.00	**2.07**
		L_{30} - L_{31}	-----	-1544.28	2530	-851	1725	-524	244	54	519	412	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.182	0.97	Yes	0.777	0.221	1.00	Yes	1.00	**1.35**
		L_{31} - L_{32}	-----	-1511.05	-154	-353	-586	-324	350	-263	-329	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.912	0.079	1	Yes	0.904	0.058	0.97	Yes	1.00	**2.25**
		L_{32} - L_{33}	-----	-1043.23	1025	-320	575	-339	81	-8	-427	49	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.113	0.98	Yes	0.855	0.140	1.00	Yes	1.00	**2.02**
		L_{33} - L_{34}	9.40	-740.41	709	-324	420	-476	-153	220	137	-35	0.009	0.154	0.17	Yes	0.006	0.096	0.11	Yes	0.876	0.079	0.96	Yes	0.870	0.124	1.00	Yes	1.00	**2.68**
		L_{34} - L_{35}	651.81	-809.71	876	-78	-8	-636	-208	82	-212	343	0.582	0.181	0.77	Yes	0.339	0.112	0.46	Yes	0.856	0.085	0.95	Yes	0.850	0.140	1.00	Yes	1.00	**4.75**
		L_{35} - L_{36}	1194.84	-710.66	781	70	164	-962	173	-180	336	138	0.836	0.162	1.00	Yes	0.563	0.101	0.67	Yes	0.589	0.087	0.68	Yes	0.585	0.130	0.72	Yes	1.00	**6.20**
		L_{36} - L_{37}	1376.01	-----	324	-243	-526	-1473	-198	148	500	-486	0.789	0.204	1.00	Yes	0.518	0.121	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.11**
		L_{37} - L_{38}	1814.98	-----	-125	-625	-1602	-1872	69	-193	-1012	530	0.768	0.227	1.00	Yes	0.511	0.137	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.36**
		L_{38} - L_{39}	1839.55	-----	-528	-219	-1857	-697	-121	179	634	139	0.789	0.204	1.00	Yes	0.530	0.126	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		L_{39} - L_{40}	1807.07	-----	-353	-426	-1379	-950	120	-152	130	321	0.842	0.152	1.00	Yes	0.558	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.53**
		L_{40} - L_{41}	1384.19	-----	-423	23	-1370	61	-26	302	203	-168	0.813	0.184	1.00	Yes	0.548	0.115	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.50**
		L_{41} - L_{42}	1048.99	-----	-213	-88	-1033	208	143	-67	-217	-73	0.827	0.172	1.00	Yes	0.542	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.99**
		L_{42} - L_{43}	561.57	-18.73	-230	203	-1251	569	185	371	181	19	0.682	0.315	1.00	Yes	0.406	0.202	0.61	Yes	0.027	0.153	0.18	Yes	0.027	0.254	0.29	Yes	1.00	**6.71**
		L_{43} - L_{44}	-----	-343.71	-65	-33	-1905	799	626	182	304	88	-----	-----	-----	-----	-----	-----	-----	-----	0.494	0.501	1	Yes	0.491	0.388	0.88	Yes	1.00	**14.32**
	Structure 3	L_0 - L_1	-----	-452.17	332	-615	53	-169	-43	-193	27	122	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.127	0.95	Yes	0.814	0.185	1.00	Yes	1.00	**4.74**
		L_1 - L_2	161.80	-37.89	980	-1688	139	-189	-736	1142	160	-114	0.248	0.744	1.00	Yes	0.167	0.473	0.65	Yes	0.069	0.439	0.51	Yes	0.068	0.507	0.58	Yes	1.00	**13.10**
		L_2 - L_3	934.65	-----	149	-645	-139	-357	438	-49	-254	172	0.814	0.180	1.00	Yes	0.521	0.110	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.36**
		L_3 - L_4	1152.51	-----	119	-1333	19	-672	-346	832	129	8	0.729	0.270	1.00	Yes	0.473	0.167	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.36**
		L_4 - L_5	1625.60	-----	-378	-263	-1271	-919	-27	228	218	-620	0.794	0.197	1.00	Yes	0.510	0.117	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.20**
		L_5 - L_6	1601.93	-----	-140	-480	-565	-1414	255	-45	-429	625	0.783	0.214	1.00	Yes	0.509	0.131	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.79**
		L_6 - L_7	1303.40	-----	-488	236	-1391	158	-51	263	436	-108	0.767	0.228	1.00	Yes	0.497	0.140	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.80**
		L_7 - L_8	1105.87	-76.65	-89	186	-537	-180	145	-198	-143	144	0.873	0.118	1.00	Yes	0.558	0.071	0.63	Yes	0.072	0.097	0.17	Yes	0.071	0.095	0.17	Yes	1.00	**5.24**
		L_8 - L_9	554.44	-350.73	-144	441	-859	414	-128	193	279	-278	0.718	0.276	1.00	Yes	0.431	0.180	0.62	Yes	0.539	0.113	0.66	Yes	0.534	0.227	0.77	Yes	1.00	**5.39**
		L_9 - L_{10}	-----	-560.82	-63	517	-515	401	198	-87	-45	-157	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.078	0.95	Yes	0.854	0.137	1.00	Yes	1.00	**4.42**
		L_{10} - L_{11}	-----	-1096.78	112	-90	-504	706	-354	-258	318	116	-----	-----	-----	-----	-----	-----	-----	-----	0.893	0.065	0.96	Yes	0.883	0.111	1.00	Yes	1.00	**7.33**
		L_{11} - L_{12}	-----	-1255.95	-43	771	-91	1340	353	110	89	165	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.187	1	Yes	0.795	0.177	0.98	Yes	1.00	**2.65**
		L_{12} - L_{13}	-----	-1256.25	1421	-60	754	-32	103	-11	25	203	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.190	1	Yes	0.796	0.188	0.99	Yes	1.00	**2.46**
		L_{13} - L_{14}	-----	-1082.81	305	-518	23	200	-135	158	223	-256	-----	-----	-----	-----	-----	-----	-----	-----	0.881	0.117	1	Yes	0.872	0.081	0.96	Yes	1.00	**4.31**
		L_{14} - L_{15}	-----	-729.28	576	110	150	-286	-260	74	-182	-604	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.144	1	Yes	0.841	0.128	0.97	Yes	1.00	**3.08**
		L_{15} - L_{16}	192.13	-560.70	483	146	175	-511	259	-223	-657	530	0.249	0.252	0.51	Yes	0.149	0.160	0.31	Yes	0.862	0.134	1	Yes	0.854	0.135	0.99	Yes	1.00	**3.56**
		L_{16} - L_{17}	683.32	-267.73	389	-36	-546	-465	-170	163	487	-116	0.786	0.210	1.00	Yes	0.467	0.133	0.60	Yes	0.366	0.170	0.54	Yes	0.362	0.132	0.50	Yes	1.00	**4.74**
		L_{17} - L_{18}	704.73	-143.57	98	-72	-625	-521	96	-109	-224	118	0.811	0.187	1.00	Yes	0.469	0.112	0.59	Yes	0.196	0.199	0.4	Yes	0.194	0.151	0.35	Yes	1.00	**5.50**
		L_{18} - L_{19}	466.85	-46.56	31	-32	-727	2	-92	212	-10	290	0.714	0.280	1.00	Yes	0.436	0.187	0.63	Yes	0.085	0.260	0.35	Yes	0.084	0.218	0.31	Yes	1.00	**5.80**
		L_{19} - L_{20}	253.74	-82.35	399	-525	-1768	1637	45	12	358	97	0.388	0.607	1.00	Yes	0.229	0.371	0.60	Yes	0.150	0.615	0.77	Yes	0.148	0.531	0.68	Yes	1.00	**35.72**

Moment (Start) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

				Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
						Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
				Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
				(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Verticals	Structure 1	$U_0 - L_0$		-----	-299.85	-6	53	-57	152	165	53	-784	-252	-----	-----	-----	-----	-----	-----	-----	-----	0.670	0.326	1	Yes	0.634	0.195	0.83	Yes	1.00	**1.55**
		$U_1 - L_1$		41.09	-305.52	43	-35	-235	226	609	209	-936	-387	0.074	0.571	0.65	Yes	0.041	0.314	0.36	Yes	0.668	0.325	1	Yes	0.646	0.300	0.95	Yes	1.00	**3.17**
		$U_2 - L_2$		68.70	-133.89	66	-71	-28	60	747	241	-2709	-818	0.124	0.875	1.00	Yes	0.068	0.481	0.55	Yes	0.293	0.671	0.97	Yes	0.283	0.091	0.38	Yes	1.00	**2.40**
		$U_3 - L_3$		235.96	-----	241	-251	33	-24	-880	-746	-383	-66	0.424	0.575	1.00	Yes	0.233	0.316	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.12**
		$U_4 - L_4$		-----	-152.10	319	-330	74	-75	-1626	-685	686	333	-----	-----	-----	-----	-----	-----	-----	-----	0.334	0.661	1	Yes	0.322	0.422	0.75	Yes	1.00	**6.79**
		$U_5 - L_5$		-----	-364.19	182	-200	79	-85	148	210	1105	631	-----	-----	-----	-----	-----	-----	-----	-----	0.659	0.340	1	Yes	0.628	0.203	0.84	Yes	1.00	**2.70**
		$U_6 - L_6$		-----	-400.49	181	-173	82	-72	515	228	1334	657	-----	-----	-----	-----	-----	-----	-----	-----	0.606	0.389	1	Yes	0.574	0.158	0.74	Yes	1.00	**2.48**
		$U_7 - L_7$		-----	-371.49	263	-287	118	-133	134	-4	953	247	-----	-----	-----	-----	-----	-----	-----	-----	0.621	0.369	1	Yes	0.573	0.283	0.86	Yes	1.00	**2.09**
		$U_8 - L_8$		-----	-1172.74	144	-179	-342	405	864	141	-1497	-631	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.149	1	Yes	0.813	0.075	0.89	Yes	1.00	**3.94**
		$U_9 - L_9$		-----	-659.67	-230	262	-407	450	586	221	-447	-123	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.175	0.97	Yes	0.745	0.250	1.00	Yes	1.00	**2.06**
		$U_{10} - L_{10}$		-----	-785.81	-158	155	-349	362	598	275	-752	-277	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.185	1	Yes	0.775	0.188	0.97	Yes	1.00	**3.07**
		$U_{11} - L_{11}$		-----	-663.07	-166	222	-381	481	613	384	-729	-119	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.194	0.99	Yes	0.772	0.223	1.00	Yes	1.00	**2.92**
		$U_{12} - L_{12}$		-----	-424.12	-137	139	-211	227	664	369	-1973	-535	-----	-----	-----	-----	-----	-----	-----	-----	0.613	0.385	1	Yes	0.582	0.194	0.78	Yes	1.00	**1.84**
		$U_{13} - L_{13}$		-----	-311.85	-85	101	-170	197	555	247	-112	153	-----	-----	-----	-----	-----	-----	-----	-----	0.630	0.366	1	Yes	0.597	0.225	0.83	Yes	1.00	**3.16**
		$U_{14} - L_{14}$		-----	-130.96	-8	10	-91	105	-1813	-534	-295	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.292	0.707	1	Yes	0.277	0.134	0.42	Yes	1.00	**5.42**
		$U_{15} - L_{15}$		30.91	-256.21	176	-201	-31	27	-1307	-415	456	96	0.056	0.635	0.70	Yes	0.031	0.349	0.38	Yes	0.574	0.417	1	Yes	0.542	0.257	0.80	Yes	1.00	**5.39**
		$U_{16} - L_{16}$		-----	-318.03	238	-250	37	-42	-667	-199	484	106	-----	-----	-----	-----	-----	-----	-----	-----	0.717	0.273	0.99	Yes	0.673	0.319	1.00	Yes	1.00	**4.23**
		$U_{17} - L_{17}$		-----	-419.12	199	-220	77	-90	-106	-12	504	197	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.211	1	Yes	0.723	0.223	0.95	Yes	1.00	**2.67**
		$U_{18} - L_{18}$		-----	-522.64	420	-435	174	-181	-156	-12	681	175	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.231	1	Yes	0.727	0.247	0.98	Yes	1.00	**3.37**
		$U_{19} - L_{19}$		-----	-639.96	448	-477	183	-196	96	-13	598	116	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.199	1	Yes	0.745	0.221	0.97	Yes	1.00	**3.92**
		$U_{20} - L_{20}$		-----	-554.48	439	-505	232	-302	94	12	657	86	-----	-----	-----	-----	-----	-----	-----	-----	0.733	0.259	1	Yes	0.645	0.234	0.88	Yes	1.00	**2.74**
	Structure 2	$U_0 - L_0$		-----	-640.52	-155	273	-255	442	-23	-4	-857	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.227	1	Yes	0.686	0.188	0.88	Yes	1.00	**1.61**
		$U_1 - L_1$		-----	-709.66	-188	196	-545	547	618	151	-425	-107	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.145	0.96	Yes	0.761	0.232	1.00	Yes	1.00	**2.71**
		$U_2 - L_2$		-----	-598.85	-135	150	-434	459	619	265	-396	159	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.175	0.98	Yes	0.763	0.235	1.00	Yes	1.00	**2.51**
		$U_3 - L_3$		-----	-458.81	-66	76	-207	227	546	254	-228	136	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.211	1	Yes	0.720	0.207	0.93	Yes	1.00	**2.07**
		$U_4 - L_4$		-----	-318.65	-3	14	-183	196	574	224	-616	9	-----	-----	-----	-----	-----	-----	-----	-----	0.723	0.273	1	Yes	0.674	0.251	0.93	Yes	1.00	**2.80**
		$U_5 - L_5$		114.95	-254.67	89	-84	-135	167	579	168	-1143	-160	0.207	0.545	0.76	Yes	0.114	0.300	0.42	Yes	0.575	0.415	1	Yes	0.539	0.214	0.76	Yes	1.00	**4.29**
		$U_6 - L_6$		197.05	-----	119	-132	-53	58	598	162	-1638	-367	0.354	0.643	1.00	Yes	0.195	0.353	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.98**
		$U_7 - L_7$		-----	-152.13	221	-256	65	-74	-1587	-360	66	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.344	0.653	1	Yes	0.322	0.328	0.65	Yes	1.00	**7.12**
		$U_8 - L_8$		-----	-467.96	346	-369	167	-186	-598	-238	197	-163	-----	-----	-----	-----	-----	-----	-----	-----	0.678	0.178	0.86	Yes	0.674	0.322	1.00	Yes	1.00	**2.79**
		$U_9 - L_9$		-----	-697.29	566	-590	278	-280	-554	-165	1050	569	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.206	0.99	Yes	0.747	0.250	1.00	Yes	1.00	**3.31**
		$U_{10} - L_{10}$		-----	-754.57	518	-523	236	-235	-216	94	1159	716	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.252	1	Yes	0.705	0.231	0.94	Yes	1.00	**2.89**
		$U_{11} - L_{11}$		-----	-723.34	450	-448	226	-218	332	365	1215	702	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.263	1	Yes	0.676	0.199	0.88	Yes	1.00	**2.49**
		$U_{12} - L_{12}$		-----	-724.72	415	-413	183	-164	746	443	1485	652	-----	-----	-----	-----	-----	-----	-----	-----	0.695	0.304	1	Yes	0.628	0.178	0.81	Yes	1.00	**2.36**
		$U_{13} - L_{13}$		-----	-623.58	519	-513	217	-216	105	-15	1174	309	-----	-----	-----	-----	-----	-----	-----	-----	0.695	0.305	1	Yes	0.601	0.249	0.85	Yes	1.00	**2.61**
		$U_{14} - L_{14}$		-----	-1156.27	525	-504	-497	458	822	91	-1344	-716	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.149	1	Yes	0.767	0.093	0.86	Yes	1.00	**4.79**
		$U_{15} - L_{15}$		-----	-685.72	-248	261	-632	615	657	57	-683	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.231	1	Yes	0.661	0.302	0.97	Yes	1.00	**2.99**
		$U_{16} - L_{16}$		-----	-715.50	-158	126	-497	482	797	157	-484	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.173	1	Yes	0.767	0.211	0.98	Yes	1.00	**2.75**
		$U_{17} - L_{17}$		-----	-643.62	-191	183	-521	526	673	150	-493	8	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.166	0.96	Yes	0.749	0.244	1.00	Yes	1.00	**2.68**
		$U_{18} - L_{18}$		-----	-583.87	-173	161	-457	491	661	166	-617	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.173	0.96	Yes	0.744	0.251	1.00	Yes	1.00	**2.64**
		$U_{19} - L_{19}$		-----	-480.12	-108	104	-286	289	563	174	-732	-52	-----	-----	-----	-----	-----	-----	-----	-----	0.722	0.209	0.94	Yes	0.717	0.278	1.00	Yes	1.00	**2.59**
		$U_{20} - L_{20}$		-----	-357.17	-59	62	-183	195	586	137	-714	-136	-----	-----	-----	-----	-----	-----	-----	-----	0.732	0.259	1	Yes	0.684	0.223	0.91	Yes	1.00	**3.47**
		$U_{21} - L_{21}$		-----	-279.06	-31	33	-164	187	661	111	-1025	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.630	0.366	1	Yes	0.590	0.239	0.83	Yes	1.00	**4.80**
		$U_{22} - L_{22}$		-----	-161.13	111	-127	-45	54	-2201	-727	-1829	-578	-----	-----	-----	-----	-----	-----	-----	-----	0.363	0.629	1	Yes	0.341	0.163	0.51	Yes	1.00	**6.64**
		$U_{23} - L_{23}$		-----	-312.93	211	-233	34	-41	-709	-204	333	19	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.291	1	Yes	0.662	0.298	0.97	Yes	1.00	**3.79**
		$U_{24} - L_{24}$		-----	-315.30	164	-175	78	-81	-1063	-134	633	240	-----	-----	-----	-----	-----	-----	-----	-----	0.646	0.345	1	Yes	0.604	0.200	0.81	Yes	1.00	**1.56**
		$U_{25} - L_{25}$		-----	-469.91	303	-298	113	-111	-48	90	628	252	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.194	0.91	Yes	0.702	0.292	1.00	Yes	1.00	**2.15**
		$U_{26} - L_{26}$		-----	-582.58	485	-503	171	-168	45	215	716	313	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.189	0.97	Yes	0.742	0.257	1.00	Yes	1.00	**2.57**
		$U_{27} - L_{27}$		-----	-628.81	541	-544	184	-182	265	303	925	390	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.217	1	Yes	0.732	0.253	0.99	Yes	1.00	**2.94**
		$U_{28} - L_{28}$		-----	-606.95	421	-386	124	-94	702	229	1719	570	-----	-----	-----	-----	-----	-----	-----	-----	0.701	0.295	1	Yes	0.650	0.179	0.83	Yes	1.00	**2.65**
		$U_{29} - L_{29}$		-----	-608.35	599	-593	109	-116	-167	-81	1258	181	-----	-----	-----	-----	-----	-----	-----	-----	0.678	0.315	1	Yes	0.587	0.286	0.88	Yes	1.00	**3.55**
		$U_{30} - L_{30}$		-----	-1170.47	232	-248	-573	508	742	-111	-1239	-383	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.143	1	Yes	0.776	0.101	0.88	Yes	1.00	**4.32**
		$U_{31} - L_{31}$		-----	-717.83	-301	296	-539	518	482	82	-397	-39	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.192	1	Yes	0.692	0.258	0.95	Yes	1.00	**2.30**
		$U_{32} - L_{32}$		-----	-870.07	-212	182	-470	470	566	167	-573	-61	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.165	1	Yes	0.754	0.202	0.96	Yes	1.00	**2.80**
		$U_{33} - L_{33}$		-----	-818.34	-246	230	-486	494	423	180	-635	11	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.169	1	Yes	0.765	0.218	0.99	Yes	1.00	**2.92**
		$U_{34} - L_{34}$		-----	-771.18	-241	250	-486	522	554	315	-1002	-74	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.229	1	Yes	0.721	0.230	0.96	Yes	1.00	**3.26**
		$U_{35} - L_{35}$		-----	-693.39	-263	274	-529	574	632	362	-1112	-195	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.222	1	Yes	0.743	0.244	0.99	Yes	1.00	**3.57**
		$U_{36} - L_{36}$		-----	-470.71	-151	168	-329	358	559	265	-1142	-156	-----	-----	-----	-----	-----	-----	-----	-----	0.682	0.304	0.99	Yes	0.678	0.313	1.00	Yes	1.00	**3.30**
		$U_{37} - L_{37}$		-----	-179.02	-69	81	-207	245	466	131	-1134	-176	-----	-----	-----	-----	-----	-----	-----	-----	0.404	0.593	1	Yes	0.379	0.313	0.70	Yes	1.00	**7.95**
		$U_{38} - L_{38}$		176.77	-89.87	131	-136	-121	133	-1751	-624	478	144	0.318	0.681	1.00	Yes	0.175	0.374	0.55	Yes	0.202	0.474	0.68	Yes	0.190	0.174	0.37	Yes	1.00	**5.10**
		$U_{39} - L_{39}$		70.47	-294.01	191	-216	-63	57	-850	-248	521	154	0.127	0.522	0.65	Yes	0.070	0.287	0.36	Yes	0.664	0.330	1	Yes	0.622	0.276	0.90	Yes	1.00	**3.94**
		$U_{40} - L_{40}$		-----	-327.87	216	-222	24	-33	-192	-59	591	168	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.255	1	Yes	0.694	0.284	0.98	Yes	1.00	**2.69**
		$U_{41} - L_{41}$		-----	-463.04	232	-246	80	-89	60	53	570	188	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.208	1	Yes	0.726	0.224	0.96	Yes	1.00	**2.19**
		$U_{42} - L_{42}$		-----	-578.73	493	-501	156	-166	56	94	665	169	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.171	0.95	Yes	0.737	0.257	1.00	Yes	1.00	**2.85**
		$U_{43} - L_{43}$		-----	-708.55	522	-549	175	-193	359	156	634	186	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.155	0.97	Yes	0.759	0.233	1.00	Yes	1.00	**3.40**
		$U_{44} - L_{44}$		-----	-650.27	489	-601	240	-307	327	55	746	126	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.215	1	Yes	0.697	0.255	0.96	Yes	1.00	**2.68**
	Structure 3	$U_0 - L_0$		-----	-586.72	-134	236	-238	401	114	15	-659	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.222	1	Yes	0.683	0.186	0.87	Yes	1.00	**1.72**
		$U_1 - L_1$		-----	-648.76	-207	206	-516	506	618	142	-470	-42	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.162	0.98	Yes	0.755	0.239	1.00	Yes	1.00	**2.76**
		$U_2 - L_2$		-----	-544.37	-159	170	-377	403	660	306	-488	107	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.193	1	Yes	0.757	0.228	0.99	Yes	1.00	**2.43**
		$U_3 - L_3$		-----	-408.75	-70	85	-186	208	567	271	-381	98	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.232	1	Yes	0.705	0.211	0.92	Yes	1.00	**1.93**
		$U_4 - L_4$		-----	-228.97	-47	53	-121	138	585	231	-1979	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.516	0.477	1	Yes	0.484	0.177	0.67	Yes	1.00	**1.94**
		$U_5 - L_5$		52.47	-180.42	58	-33	-118	142	-1505	-1115	-1121	-47	0.094	0.617	0.72	Yes	0.052	0.339	0.40	Yes	0.404	0.587	1	Yes	0.382	0.181	0.57	Yes	1.00	**7.70**
		$U_6 - L_6$		-----	-130.14	222	-249	51	-57	-1766	-571	616	187	-----	-----	-----	-----	-----	-----	-----	-----	0.290	0.709	1	Yes	0.275	0.319	0.60	Yes	1.00	**6.01**
		$U_7 - L_7$		-----	-367.09	224	-252	102	-118	-265	-83	543	180	-----	-----	-----	-----	-----	-----	-----	-----	0.742	0.228	0.98	Yes	0.703	0.288	1.00	Yes	1.00	**2.73**
		$U_8 - L_8$		-----	-518.20	334	-335	156	-154	-210	33	720	360	-----	-----	-----	-----	-----	-----	-----	-----	0.749	0.227	0.98	Yes	0.711	0.286	1.00	Yes	1.00	**3.38**
		$U_9 - L_9$		-----	-597.45	373	-462	182	-227	259	302	1315	788	-----	-----	-----	-----	-----	-----	-----	-----	0.717	0.280	1	Yes	0.695	0.214	0.91	Yes	1.00	**3.15**
		$U_{10} - L_{10}$		-----	-626.57	302	-296	158	-150	602	400	1468	809	-----	-----	-----	-----	-----	-----	-----	-----	0.649	0.346	1	Yes	0.618	0.156	0.78	Yes	1.00	**2.76**
		$U_{11} - L_{11}$		-----	-578.72	389	-444	211	-246	329	207	1125	531	-----	-----	-----	-----	-----	-----	-----	-----	0.690	0.309	1	Yes	0.654	0.247	0.91	Yes	1.00	**2.10**
		$U_{12} - L_{12}$		-----	-1123.38	276	-376	-286	299	1176	347	-1745	-529	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.188	1	Yes	0.779	0.070	0.85	Yes	1.00	**4.37**
		$U_{13} - L_{13}$		-----	-445.32	-154	169	-291	311	533	56	-391	-114	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.212	0.96	Yes	0.687	0.306	1.00	Yes	1.00	**1.95**
		$U_{14} - L_{14}$		-----	-419.28	-98	92	-160	168	684	225	-1646	-549	-----	-----	-----	-----	-----	-----	-----	-----	0.635	0.359	1	Yes	0.601	0.147	0.75	Yes	1.00	**1.66**
		$U_{15} - L_{15}$		-----	-355.20	-79	84	-161	177	761	238	-75	53	-----	-----	-----	-----	-----	-----	-----	-----	0.643	0.352	1	Yes	0.613	0.179	0.80	Yes	1.00	**3.41**
		$U_{16} - L_{16}$		-----	-178.63	-70	74	-218	223	-1052	-97	-583	-275	-----	-----	-----	-----	-----	-----	-----	-----	0.393	0.606	1	Yes	0.378	0.285	0.67	Yes	1.00	**7.66**
		$U_{17} - L_{17}$		191.60	-73.03	51	-64	-190	213	-1305	-604	479	178	0.345	0.650	1.00	Yes	0.190	0.357	0.55	Yes	0.160	0.392	0.56	Yes	0.155	0.272	0.43	Yes	1.00	**6.85**
		$U_{18} - L_{18}$		152.45	-255.12	201	-236	-158	172	-1341	-495	468	147	0.274	0.689	0.97	Yes	0.151	0.379	0.53	Yes	0.558	0.440	1	Yes	0.540	0.301	0.85	Yes	1.00	**7.23**
		$U_{19} - L_{19}$		41.60	-338.34	194	-216	-57	40	-52	-12	433	229	0.075	0.401	0.48	Yes	0.041	0.221	0.27	Yes	0.739	0.241	0.98	Yes	0.716	0.276	1.00	Yes	1.00	**5.35**
		$U_{20} - L_{20}$		-----	-296.74	206	-240	68	-76	247	79	620	199	-----	-----	-----	-----	-----	-----	-----	-----	0.663	0.334	1	Yes	0.628	0.306	0.94	Yes	1.00	**2.98**

Moment (Start) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Diagonals	Structure 1	$U_0 - L_1$	515.52	-203.22	92	-28	-167	46	-423	-151	493	-72	0.676	0.319	1.00	Yes	0.408	0.176	0.59	Yes	0.347	0.246	0.6	Yes	0.314	0.195	0.51	Yes	1.00	13.09
		$U_1 - L_2$	354.24	-138.54	19	-18	-91	-5	450	255	-827	-779	0.637	0.356	1.00	Yes	0.350	0.196	0.55	Yes	0.318	0.319	0.64	Yes	0.293	0.117	0.41	Yes	1.00	3.44
		$U_2 - L_3$	-----	-200.41	37	-26	-49	-39	441	223	-1865	-248	-----	-----	-----	-----	-----	-----	-----	-----	0.461	0.530	1	Yes	0.424	0.063	0.49	Yes	1.00	3.37
		$U_3 - L_4$	-----	-304.56	49	-10	-9	-57	504	284	-751	-528	-----	-----	-----	-----	-----	-----	-----	-----	0.696	0.295	1	Yes	0.644	0.073	0.72	Yes	1.00	4.44
		$U_4 - L_4$	580.35	-----	6	100	-102	43	-106	178	5	-20	0.851	0.144	1.00	Yes	0.468	0.079	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	5.25
		$U_5 - L_3$	699.09	-----	15	217	-201	222	-218	95	-34	256	0.827	0.173	1.00	Yes	0.455	0.095	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	5.76
		$U_7 - L_5$	622.15	-----	-37	93	-267	254	-568	39	126	607	0.736	0.262	1.00	Yes	0.405	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.90
		$U_8 - L_7$	659.56	-----	82	222	-87	303	230	-195	-232	105	0.780	0.215	1.00	Yes	0.429	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	5.94
		$U_9 - L_9$	937.58	-----	31	199	-78	369	604	303	-599	-367	0.750	0.241	1.00	Yes	0.464	0.136	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.36
		$U_9 - L_{10}$	941.09	-----	-114	137	-289	245	580	263	-867	-561	0.752	0.239	1.00	Yes	0.466	0.136	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.07
		$U_{10} - L_{11}$	937.00	-----	-69	130	-234	171	300	41	-727	-668	0.791	0.204	1.00	Yes	0.490	0.116	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.52
		$U_{11} - L_{12}$	758.81	-----	-91	75	-249	59	202	-24	-650	-879	0.751	0.247	1.00	Yes	0.413	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.00
		$U_{12} - L_{13}$	391.82	-----	-87	62	-166	97	66	-62	-1916	-510	0.478	0.519	1.00	Yes	0.301	0.303	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.56
		$U_{13} - L_{14}$	349.26	-----	-32	10	-83	13	188	3	-898	-874	0.628	0.366	1.00	Yes	0.345	0.201	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	4.10
		$U_{15} - L_{14}$	314.38	-190.05	31	-51	-124	-37	-343	-185	945	-346	0.565	0.432	1.00	Yes	0.311	0.237	0.55	Yes	0.445	0.460	0.91	Yes	0.402	0.158	0.57	Yes	1.00	9.09
		$U_{16} - L_{15}$	388.94	-20.85	-12	-8	-155	87	-298	-124	322	27	0.700	0.291	1.00	Yes	0.385	0.160	0.55	Yes	0.049	0.174	0.23	Yes	0.044	0.198	0.25	Yes	1.00	5.65
		$U_{17} - L_{16}$	528.33	-----	-44	21	-149	95	-311	-109	97	0	0.775	0.223	1.00	Yes	0.426	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.37
		$U_{18} - L_{17}$	617.40	-----	-128	86	-338	254	-405	-118	76	55	0.730	0.265	1.00	Yes	0.401	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.70
		$U_{19} - L_{18}$	692.51	-----	-130	94	-329	248	-458	-206	-94	47	0.750	0.243	1.00	Yes	0.413	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.86
		$U_{20} - L_{19}$	686.15	-----	-176	142	-414	331	-260	-141	41	-36	0.743	0.254	1.00	Yes	0.409	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.81
	Structure 2	$U_0 - L_1$	628.74	-----	-48	100	-400	289	-420	-149	1254	527	0.622	0.373	1.00	Yes	0.342	0.205	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	6.71
		$U_1 - L_2$	704.09	-----	-152	107	-381	290	170	-6	-787	-569	0.697	0.294	1.00	Yes	0.383	0.162	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.28
		$U_2 - L_3$	576.30	-----	-104	76	-308	246	155	-2	-759	-541	0.681	0.312	1.00	Yes	0.375	0.172	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.25
		$U_3 - L_4$	515.13	-----	-44	19	-167	109	194	29	-760	-485	0.687	0.312	1.00	Yes	0.378	0.171	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.29
		$U_4 - L_5$	311.76	-76.45	13	-26	-125	72	271	61	-951	-458	0.561	0.435	1.00	Yes	0.308	0.239	0.55	Yes	0.189	0.418	0.61	Yes	0.162	0.160	0.33	Yes	1.00	3.43
		$U_5 - L_6$	243.05	-238.94	68	-69	-83	2	403	128	-1409	-496	0.437	0.514	0.96	Yes	0.240	0.283	0.53	Yes	0.564	0.428	1	Yes	0.506	0.107	0.62	Yes	1.00	5.13
		$U_6 - L_7$	-----	-299.05	51	-67	-26	-86	305	128	-690	-1015	-----	-----	-----	-----	-----	-----	-----	-----	0.640	0.359	1	Yes	0.573	0.098	0.68	Yes	1.00	3.90
		$U_8 - L_7$	539.16	-----	-85	77	-206	109	-270	-66	-31	616	0.687	0.310	1.00	Yes	0.433	0.177	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.28
		$U_8 - L_8$	718.44	-----	-161	169	-346	235	-256	-63	144	-15	0.778	0.219	1.00	Yes	0.428	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.63
		$U_{10} - L_9$	838.87	-----	-114	180	-316	233	-131	24	63	114	0.830	0.166	1.00	Yes	0.456	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.04
		$U_{11} - L_{10}$	876.09	-----	-120	199	-350	296	-243	68	196	329	0.798	0.194	1.00	Yes	0.439	0.107	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.74
		$U_{12} - L_{11}$	844.52	-----	-127	176	-341	344	-600	64	-58	253	0.769	0.228	1.00	Yes	0.423	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.60
		$U_{13} - L_{12}$	727.52	-----	-158	163	-415	381	-530	-7	-241	161	0.720	0.272	1.00	Yes	0.396	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.59
		$U_{14} - L_{13}$	732.04	-----	24	202	-255	418	508	-142	-132	47	0.724	0.270	1.00	Yes	0.398	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.74
		$U_{14} - L_{15}$	592.79	-----	8	151	-188	346	569	259	-322	-117	0.701	0.299	1.00	Yes	0.385	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.87
		$U_{15} - L_{16}$	585.81	-----	-154	149	-347	319	603	197	52	-370	0.693	0.306	1.00	Yes	0.381	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	1.96
		$U_{16} - L_{17}$	666.10	-----	-110	163	-317	346	594	244	-384	-284	0.721	0.275	1.00	Yes	0.397	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.43
		$U_{17} - L_{18}$	619.95	-----	-98	149	-278	276	556	203	-481	-312	0.733	0.258	1.00	Yes	0.403	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.27
		$U_{18} - L_{19}$	604.20	-----	-71	134	-276	248	467	181	-686	-480	0.714	0.280	1.00	Yes	0.393	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.69
		$U_{19} - L_{20}$	512.63	-----	-45	62	-182	124	383	171	-699	-896	0.654	0.346	1.00	Yes	0.360	0.199	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.74
		$U_{20} - L_{21}$	345.36	-----	-16	25	-113	94	414	220	-796	-347	0.621	0.375	1.00	Yes	0.342	0.206	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	4.23
		$U_{21} - L_{22}$	274.80	-48.21	12	-3	-96	29	670	526	-1309	-531	0.494	0.502	1.00	Yes	0.272	0.276	0.55	Yes	0.114	0.433	0.55	Yes	0.102	0.123	0.23	Yes	1.00	6.76
		$U_{23} - L_{22}$	372.55	-----	2	22	-124	37	-260	48	575	-77	0.670	0.325	1.00	Yes	0.369	0.179	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	5.26
		$U_{24} - L_{23}$	417.39	-----	-19	37	-131	104	-219	-6	265	90	0.751	0.245	1.00	Yes	0.413	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.49
		$U_{25} - L_{24}$	564.18	-----	-43	77	-179	165	-261	-33	129	569	0.719	0.277	1.00	Yes	0.396	0.158	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.44
		$U_{26} - L_{25}$	658.46	-----	-65	124	-259	292	-225	-1	278	247	0.778	0.216	1.00	Yes	0.428	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.62
		$U_{27} - L_{26}$	628.84	-----	-82	129	-265	306	-430	140	105	270	0.743	0.251	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.43
		$U_{28} - L_{27}$	655.27	-----	-71	128	-279	348	-630	31	-53	218	0.710	0.282	1.00	Yes	0.390	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.60
		$U_{29} - L_{28}$	581.84	-----	-63	79	-342	322	-634	-77	11	575	0.688	0.309	1.00	Yes	0.378	0.170	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.83
		$U_{30} - L_{29}$	627.68	-52.01	94	-1	-187	351	-320	-292	-111	86	0.742	0.257	1.00	Yes	0.408	0.141	0.55	Yes	0.083	0.164	0.25	Yes	0.072	0.199	0.28	Yes	1.00	5.40
		$U_{30} - L_{31}$	729.57	-----	-43	219	-257	434	507	235	-476	-247	0.722	0.277	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.83
		$U_{31} - L_{32}$	732.71	-----	-225	212	-425	377	471	138	-421	-246	0.725	0.268	1.00	Yes	0.399	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.05
		$U_{32} - L_{33}$	818.04	-----	-151	201	-336	330	449	144	-749	-524	0.745	0.245	1.00	Yes	0.410	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.40
		$U_{33} - L_{34}$	800.05	-----	-139	181	-315	257	365	102	-936	-657	0.729	0.262	1.00	Yes	0.401	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.37
		$U_{34} - L_{35}$	758.41	-----	-125	144	-293	208	180	29	-712	-539	0.750	0.242	1.00	Yes	0.413	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.86
		$U_{35} - L_{36}$	642.46	-----	-155	141	-309	199	188	44	-883	-529	0.696	0.304	1.00	Yes	0.383	0.167	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.55
		$U_{36} - L_{37}$	439.14	-----	-81	80	-184	80	225	67	-729	-1305	0.560	0.431	1.00	Yes	0.352	0.250	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.27
		$U_{38} - L_{37}$	-----	-326.76	60	-69	-67	-69	-291	-117	193	673	-----	-----	-----	-----	-----	-----	-----	-----	0.706	0.294	1	Yes	0.626	0.079	0.71	Yes	1.00	5.21
		$U_{39} - L_{38}$	376.17	-210.92	59	-65	-124	41	-365	-80	542	-90	0.677	0.315	1.00	Yes	0.372	0.173	0.55	Yes	0.503	0.312	0.82	Yes	0.446	0.158	0.61	Yes	1.00	5.42
		$U_{40} - L_{39}$	393.17	-38.95	2	-16	-139	90	-378	-100	154	39	0.707	0.287	1.00	Yes	0.389	0.158	0.55	Yes	0.093	0.168	0.27	Yes	0.082	0.178	0.27	Yes	1.00	3.49
		$U_{41} - L_{40}$	559.80	-----	-51	25	-178	125	-413	-181	8	7	0.746	0.249	1.00	Yes	0.410	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.49
		$U_{42} - L_{41}$	619.95	-----	-112	83	-327	262	-409	-173	-33	36	0.733	0.259	1.00	Yes	0.403	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.56
		$U_{43} - L_{42}$	767.38	-----	-126	94	-373	307	-388	-200	-93	81	0.759	0.231	1.00	Yes	0.418	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.22
		$U_{44} - L_{43}$	786.60	-----	-154	147	-404	381	-168	21	51	57	0.778	0.212	1.00	Yes	0.428	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.44
	Structure 3	$U_0 - L_1$	645.46	-----	-47	87	-359	291	-275	-84	711	427	0.699	0.301	1.00	Yes	0.385	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	8.79
		$U_1 - L_2$	636.93	-----	-159	109	-340	243	161	-42	-802	-540	0.690	0.306	1.00	Yes	0.379	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.30
		$U_2 - L_3$	563.08	-----	-125	86	-304	240	129	-28	-877	-620	0.666	0.331	1.00	Yes	0.366	0.182	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.48
		$U_3 - L_4$	459.82	-----	-43	21	-133	73	150	-29	-668	-803	0.674	0.322	1.00	Yes	0.371	0.177	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.23
		$U_4 - L_5$	106.57	-----	-19	0	-91	28	163	-12	-2380	-205	0.192	0.806	1.00	Yes	0.105	0.443	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.22
		$U_5 - L_6$	-----	-222.15	17	-93	-28	-66	-830	-337	-1059	-825	-----	-----	-----	-----	-----	-----	-----	-----	0.520	0.472	1	Yes	0.470	0.119	0.59	Yes	1.00	4.34
		$U_7 - L_6$	439.67	-----	-37	17	-96	42	-273	-55	151	-132	0.791	0.202	1.00	Yes	0.435	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.24
		$U_8 - L_7$	616.39	-----	-84	79	-215	152	-273	-97	276	123	0.751	0.242	1.00	Yes	0.473	0.136	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.77
		$U_8 - L_9$	848.42	-----	-69	98	-267	111	-216	9	31	187	0.839	0.156	1.00	Yes	0.462	0.086	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	4.25
		$U_{10} - L_9$	991.98	-----	-45	152	-237	198	-97	94	99	349	0.838	0.155	1.00	Yes	0.519	0.087	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	4.75
		$U_{11} - L_{10}$	932.18	-----	-82	106	-282	256	-539	-34	520	1001	0.745	0.253	1.00	Yes	0.462	0.144	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.81
		$U_{12} - L_{11}$	962.57	-----	89	240	-73	367	505	40	26	376	0.769	0.228	1.00	Yes	0.477	0.128	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	5.19
		$U_{12} - L_{13}$	595.49	-----	22	171	-86	296	660	355	-264	-216	0.704	0.288	1.00	Yes	0.387	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.81
		$U_{13} - L_{14}$	594.86	-----	-97	136	-278	214	723	321	-438	-560	0.703	0.290	1.00	Yes	0.387	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	2.55
		$U_{14} - L_{15}$	459.56	-----	-27	163	-183	154	574	269	-1893	-468	0.543	0.448	1.00	Yes	0.299	0.246	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	3.90
		$U_{15} - L_{16}$	413.70	-----	-7	87	-79	1	487	259	-1273	-1130	0.607	0.385	1.00	Yes	0.334	0.212	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	5.13
		$U_{17} - L_{16}$	-----	-342.92	56	-8	-41	-66	-247	4	240	-447	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.207	1	Yes	0.726	0.084	0.82	Yes	1.00	6.05
		$U_{18} - L_{17}$	227.80	-347.46	68	-42	-111	-11	-204	-65	280	-120	0.410	0.223	0.64	Yes	0.225	0.123	0.35	Yes	0.800	0.192	1	Yes	0.735	0.142	0.88	Yes	1.00	8.15
		$U_{19} - L_{18}$	462.27	-220.58	41	-30	-84	6	-206	-118	110	53	0.831	0.167	1.00	Yes	0.457	0.092	0.55	Yes	0.506	0.163	0.67	Yes	0.467	0.107	0.58	Yes	1.00	7.07
		$U_{20} - L_{19}$	612.97	-74.22	-22	-3	-142	81	-48	30	89	59	0.804	0.189	1.00	Yes	0.486	0.104	0.59	Yes	0.127	0.097	0.23	Yes	0.115	0.166	0.29	Yes	1.00	6.03

Moment (Start) AB Operating

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression													
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Upper Chord	Structure 1	U_0 - U_1			-----	-595.87	-54	-161	-430	-569	39	106	-67	-131	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.186	1.00	Yes	0.804	0.135	0.94	Yes	1.00	**7.96**
		U_1 - U_2			75.60	-595.50	-55	117	-159	-619	-7	-7	-17	-153	0.087	0.173	0.26	Yes	0.059	0.119	0.18	Yes	0.810	0.180	1.00	Yes	0.803	0.147	0.96	Yes	1.00	**4.29**
		U_2 - U_3			186.90	-636.48	-107	304	-454	-299	10	26	-26	129	0.214	0.130	0.35	Yes	0.144	0.085	0.23	Yes	0.866	0.128	1.00	Yes	0.858	0.108	0.97	Yes	1.00	**3.98**
		U_3 - U_4			357.95	-560.15	84	319	-390	-614	5	38	156	62	0.410	0.172	0.59	Yes	0.282	0.118	0.40	Yes	0.762	0.233	1.00	Yes	0.755	0.146	0.91	Yes	1.00	**3.94**
		U_4 - U_5			380.07	-583.84	141	309	-868	-151	22	-31	93	-51	0.436	0.222	0.66	Yes	0.299	0.153	0.46	Yes	0.794	0.195	0.99	Yes	0.787	0.206	1.00	Yes	1.00	**4.14**
		U_5 - U_6			722.60	-362.38	283	500	-457	270	-157	-79	249	-286	0.828	0.167	1.00	Yes	0.559	0.110	0.67	Yes	0.493	0.145	0.64	Yes	0.489	0.119	0.61	Yes	1.00	**5.58**
		U_6 - U_7			898.14	-----	398	239	-334	41	-320	-132	385	-120	0.859	0.137	1.00	Yes	0.600	0.095	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.14**
		U_7 - U_8			990.99	-----	38	1140	-605	1710	-453	25	-3	-372	0.687	0.305	1.00	Yes	0.479	0.208	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.41**
		U_8 - U_9			856.07	-----	1441	-418	687	-167	-433	-90	-237	-119	0.701	0.295	1.00	Yes	0.480	0.201	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.08**
		U_9 - U_{10}			733.97	-----	495	-9	90	58	-259	528	-43	150	0.796	0.196	1.00	Yes	0.539	0.131	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.24**
		U_{10} - U_{11}			-----	-375.62	1863	-2302	132	-230	125	428	118	84	-----	-----	-----	-----	-----	-----	-----	-----	0.484	0.320	0.81	Yes	0.479	0.516	1.00	Yes	1.00	**24.01**
		U_{11} - U_{12}			649.25	-825.10	718	195	-33	-788	-24	334	595	994	0.518	0.249	0.77	Yes	0.351	0.167	0.52	Yes	0.781	0.211	1.00	Yes	0.774	0.131	0.91	Yes	1.00	**13.57**
		U_{12} - U_{13}			-----	-1273.72	9	-234	-193	-574	346	206	537	331	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.133	1.00	Yes	0.851	0.079	0.93	Yes	1.00	**3.52**
		U_{13} - U_{14}			-----	-1347.53	-155	-389	-461	-1401	225	177	383	501	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.213	1.00	Yes	0.773	0.155	0.93	Yes	1.00	**2.80**
		U_{14} - U_{15}			-----	-1352.15	-280	-254	-1312	-605	213	29	590	170	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.211	1.00	Yes	0.775	0.145	0.92	Yes	1.00	**2.81**
		U_{15} - U_{16}			-----	-1486.36	-143	-431	-557	-797	79	36	431	-42	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.136	1.00	Yes	0.852	0.088	0.95	Yes	1.00	**3.44**
		U_{16} - U_{17}			-----	-1419.66	-329	-190	-1093	-402	156	-50	600	55	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.169	1.00	Yes	0.814	0.121	0.94	Yes	1.00	**3.87**
		U_{17} - U_{18}			-----	-1106.14	-203	-80	-677	107	-14	-62	462	-59	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.122	1.00	Yes	0.866	0.110	0.98	Yes	1.00	**4.11**
		U_{18} - U_{19}			-----	-736.29	-191	-75	-712	-41	14	-116	463	-279	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.156	1.00	Yes	0.828	0.143	0.98	Yes	1.00	**4.40**
		U_{19} - U_{20}			-----	-469.20	-238	115	-1545	2346	-117	-7	414	-1343	-----	-----	-----	-----	-----	-----	-----	-----	0.533	0.334	0.87	Yes	0.528	0.472	1.00	Yes	1.00	**9.50**
	Structure 2	U_0 - U_1			-----	-649.24	368	-841	-426	-1269	89	96	-49	-116	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.226	1.00	Yes	0.767	0.215	0.99	Yes	1.00	**13.69**
		U_1 - U_2			-----	-886.44	47	-887	-57	-377	-35	-153	68	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.136	1.00	Yes	0.856	0.135	1.00	Yes	1.00	**5.02**
		U_2 - U_3			-----	-1157.97	-62	-774	-180	-1160	164	823	-103	259	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.167	1.00	Yes	0.822	0.118	0.94	Yes	1.00	**6.67**
		U_3 - U_4			-----	-1453.84	-401	-373	-802	-1056	260	367	173	131	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.157	1.00	Yes	0.828	0.094	0.93	Yes	1.00	**3.74**
		U_4 - U_5			-----	-1581.35	-418	-398	-840	-1418	370	124	225	135	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.173	1.00	Yes	0.812	0.118	0.93	Yes	1.00	**3.45**
		U_5 - U_6			-----	-1641.71	-392	70	-1150	-770	182	-246	263	378	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.143	1.00	Yes	0.843	0.095	0.94	Yes	1.00	**3.26**
		U_6 - U_7			-----	-1398.74	-260	-82	-959	-1435	-152	-196	338	136	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.193	1.00	Yes	0.796	0.128	0.93	Yes	1.00	**2.66**
		U_7 - U_8			-----	-1405.45	-179	-154	-1530	-824	-114	-192	206	52	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.186	1.00	Yes	0.800	0.136	0.94	Yes	1.00	**2.69**
		U_8 - U_9			-----	-1279.29	-244	158	-963	-400	-109	-208	311	-229	-----	-----	-----	-----	-----	-----	-----	-----	0.874	0.121	1.00	Yes	0.868	0.102	0.98	Yes	1.00	**2.99**
		U_9 - U_{10}			189.13	-973.43	-49	376	-1140	-130	-149	-157	260	-49	0.139	0.167	0.31	Yes	0.094	0.113	0.21	Yes	0.845	0.151	1.00	Yes	0.840	0.139	0.98	Yes	1.00	**3.19**
		U_{10} - U_{11}			655.56	-826.15	289	468	-1086	-96	-216	-183	333	-135	0.554	0.194	0.75	Yes	0.377	0.126	0.51	Yes	0.826	0.170	1.00	Yes	0.821	0.153	0.98	Yes	1.00	**4.85**
		U_{11} - U_{12}			934.75	-291.79	313	593	-1083	389	-388	-145	428	-112	0.790	0.205	1.00	Yes	0.530	0.137	0.67	Yes	0.292	0.121	0.42	Yes	0.290	0.153	0.45	Yes	1.00	**5.37**
		U_{12} - U_{13}			1265.93	-----	558	159	-758	-303	-475	-412	425	-452	0.855	0.141	1.00	Yes	0.609	0.096	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.35**
		U_{13} - U_{14}			1214.96	-----	26	2128	-1266	3384	-789	-397	-220	-1211	0.597	0.396	1.00	Yes	0.423	0.261	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.14**
		U_{14} - U_{15}			1280.69	-----	3200	-320	1302	68	-1039	-626	-818	-609	0.630	0.367	1.00	Yes	0.446	0.242	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.25**
		U_{15} - U_{16}			1474.88	-----	278	369	-10	-349	-519	362	-298	691	0.892	0.100	1.00	Yes	0.634	0.069	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.73**
		U_{16} - U_{17}			1094.76	-----	1386	-354	353	33	69	137	66	72	0.807	0.189	1.00	Yes	0.537	0.124	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.19**
		U_{17} - U_{18}			571.46	-----	1244	-1555	168	-351	-9	1055	437	592	0.574	0.419	1.00	Yes	0.382	0.277	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.53**
		U_{18} - U_{19}			847.42	-8.57	539	441	129	-166	54	111	346	306	0.851	0.142	1.00	Yes	0.558	0.091	0.65	Yes	0.010	0.148	0.16	Yes	0.010	0.092	0.11	Yes	1.00	**5.84**
		U_{19} - U_{20}			880.10	-735.20	528	469	-271	-592	-44	-127	150	456	0.825	0.156	0.99	Yes	0.547	0.102	0.65	Yes	0.816	0.181	1.00	Yes	0.811	0.095	0.91	Yes	1.00	**6.70**
		U_{20} - U_{21}			838.03	-911.46	373	374	-449	-665	-190	-111	335	237	0.650	0.133	0.79	Yes	0.455	0.087	0.55	Yes	0.838	0.154	1.00	Yes	0.832	0.096	0.93	Yes	1.00	**6.82**
		U_{21} - U_{22}			311.99	-834.78	74	153	-508	-1122	-29	30	185	340	0.242	0.200	0.45	Yes	0.172	0.134	0.31	Yes	0.767	0.228	1.00	Yes	0.762	0.163	0.93	Yes	1.00	**3.10**
		U_{22} - U_{23}			313.32	-837.30	163	56	-1108	-506	-3	-9	406	83	0.243	0.205	0.45	Yes	0.172	0.138	0.32	Yes	0.770	0.226	1.00	Yes	0.764	0.161	0.93	Yes	1.00	**3.11**
		U_{23} - U_{24}			946.62	-897.94	415	405	-950	-293	-217	-27	375	-50	0.734	0.179	0.92	Yes	0.514	0.116	0.64	Yes	0.825	0.174	1.00	Yes	0.820	0.138	0.96	Yes	1.00	**7.74**
		U_{24} - U_{25}			527.59	-792.31	297	304	-690	-98	-132	-27	390	-136	0.495	0.163	0.66	Yes	0.328	0.107	0.44	Yes	0.880	0.115	1.00	Yes	0.874	0.111	0.99	Yes	1.00	**4.21**
		U_{25} - U_{26}			813.10	-684.63	414	456	-743	372	-260	-3	301	-249	0.816	0.170	0.99	Yes	0.535	0.109	0.65	Yes	0.813	0.182	1.00	Yes	0.809	0.126	0.94	Yes	1.00	**5.91**
		U_{26} - U_{27}			812.10	-----	450	319	-821	663	-300	0	163	-187	0.815	0.183	1.00	Yes	0.543	0.121	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.29**
		U_{27} - U_{28}			1132.92	-----	428	438	-729	915	-462	76	315	-327	0.835	0.164	1.00	Yes	0.555	0.108	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.57**
		U_{28} - U_{29}			1450.13	-----	639	42	-638	-136	-574	-196	271	-480	0.877	0.121	1.00	Yes	0.624	0.083	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.16**
		U_{29} - U_{30}			1216.69	-----	180	1286	-797	3567	-339	-17	-151	-917	0.598	0.393	1.00	Yes	0.424	0.258	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.10**
		U_{30} - U_{31}			1287.92	-----	3226	-630	1071	-131	-894	-445	-314	-194	0.633	0.360	1.00	Yes	0.448	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.73**
		U_{31} - U_{32}			1147.18	-----	316	992	-287	-686	-805	-215	674	1016	0.775	0.222	1.00	Yes	0.552	0.153	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**15.93**
		U_{32} - U_{33}			909.44	-81.99	1023	-1117	120	-597	180	315	557	583	0.768	0.229	1.00	Yes	0.516	0.153	0.67	Yes	0.082	0.141	0.23	Yes	0.081	0.158	0.24	Yes	1.00	**7.45**
		U_{33} - U_{34}			975.20	-376.51	529	425	-215	-666	-38	188	492	671	0.824	0.176	1.00	Yes	0.561	0.116	0.68	Yes	0.376	0.164	0.55	Yes	0.374	0.094	0.47	Yes	1.00	**6.49**
		U_{34} - U_{35}			1107.89	-837.73	823	470	-370	-886	-16	47	676	521	0.813	0.181	1.00	Yes	0.550	0.122	0.68	Yes	0.727	0.172	0.90	Yes	0.723	0.108	0.84	Yes	1.00	**8.89**
		U_{35} - U_{36}			207.47	-1243.06	211	-105	-312	-904	97	86	360	437	0.120	0.132	0.26	Yes	0.084	0.088	0.18	Yes	0.849	0.146	1.00	Yes	0.843	0.096	0.94	Yes	1.00	**3.75**
		U_{36} - U_{37}			-----	-1377.89	-40	52	-744	-1563	85	-3	407	268	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.201	1.00	Yes	0.785	0.139	0.93	Yes	1.00	**3.30**
		U_{37} - U_{38}			-----	-1378.69	142	-128	-1455	-952	41	23	324	232	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.203	1.00	Yes	0.785	0.130	0.92	Yes	1.00	**3.29**
		U_{38} - U_{39}			-----	-1637.92	186	-264	-729	-1266	129	-26	541	-68	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.148	1.00	Yes	0.841	0.105	0.95	Yes	1.00	**3.86**
		U_{39} - U_{40}			-----	-1570.12	-156	-328	-1531	-947	26	-12	444	93	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.186	1.00	Yes	0.806	0.127	0.94	Yes	1.00	**3.91**
		U_{40} - U_{41}			-----	-1458.61	-204	-330	-1166	-798	54	-99	393	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.154	1.00	Yes	0.831	0.104	0.94	Yes	1.00	**4.17**
		U_{41} - U_{42}			-----	-1223.33	-99	-158	-1141	-3	-72	-80	392	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.119	1.00	Yes	0.868	0.116	0.99	Yes	1.00	**4.77**
		U_{42} - U_{43}			-----	-858.05	-94	-68	-895	-186	-33	-72	330	-310	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.158	1.00	Yes	0.828	0.136	0.97	Yes	1.00	**5.12**
		U_{43} - U_{44}			-----	-531.80	58	-317	-1733	2170	-55	73	150	-1059	-----	-----	-----	-----	-----	-----	-----	-----	0.632	0.240	0.88	Yes	0.628	0.368	1.00	Yes	1.00	**8.04**
	Structure 3	U_0 - U_1			-----	-675.49	515	-787	-318	-1108	119	240	-164	-247	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.225	1.00	Yes	0.760	0.223	0.99	Yes	1.00	**13.10**
		U_1 - U_2			-----	-758.50	141	-668	-81	-347	-69	-218	119	-24	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.137	1.00	Yes	0.853	0.134	0.99	Yes	1.00	**4.94**
		U_2 - U_3			-----	-1098.48	36	-660	-79	-157	-121	184	-52	342	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.122	1.00	Yes	0.860	0.107	0.97	Yes	1.00	**4.54**
		U_3 - U_4			-----	-1428.76	-164	-284	-428	-973	335	521	227	250	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.165	1.00	Yes	0.819	0.107	0.93	Yes	1.00	**5.10**
		U_4 - U_5			-----	-1494.43	-367	-128	-697	-475	477	142	317	175	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.125	1.00	Yes	0.857	0.077	0.94	Yes	1.00	**4.52**
		U_5 - U_6			-----	-1364.63	-188	-282	-581	-1400	142	-148	260	313	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.204	1.00	Yes	0.782	0.154	0.94	Yes	1.00	**3.02**
		U_6 - U_7			-----	-1375.53	-380	-107	-1472	-455	-88	-186	397	57	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.197	1.00	Yes	0.789	0.162	0.96	Yes	1.00	**3.06**
		U_7 - U_8			-----	-1325.23	-161	9	-518	-315	-61	-179	290	-270	-----	-----	-----	-----	-----	-----	-----	-----	0.896	0.101	1.00	Yes	0.885	0.071	0.96	Yes	1.00	**3.62**
		U_8 - U_9			-----	-929.73	-95	188	-730	10	-36	-156	267	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.880	0.111	1.00	Yes	0.872	0.121	1.00	Yes	1.00	**3.21**
		U_9 - U_{10}			211.84	-638.84	-50	257	-806	201	-113	-110	221	-177	0.230	0.216	0.45	Yes	0.153	0.139	0.30	Yes	0.823	0.142	0.97	Yes	0.815	0.181	1.00	Yes	1.00	**4.29**
		U_{10} - U_{11}			741.97	-218.61	343	242	-565	266	-265	-162	355	-406	0.805	0.192	1.00	Yes	0.545	0.129	0.68	Yes	0.281	0.078	0.36	Yes	0.279	0.127	0.41	Yes	1.00	**7.56**
		U_{11} - U_{12}			790.62	-----	-59	982	-799	1570	-419	-86	-21	-714	0.648	0.351	1.00	Yes	0.443	0.239	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.48**
		U_{12} - U_{13}			996.98	-----	1613	-261	554	12	-631	-371	-276	-270	0.691	0.309	1.00	Yes	0.482	0.211	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.80**
		U_{13} - U_{14}			917.49	-----	264	170	67	193	-424	117	-147	-5	0.877	0.115	1.00	Yes	0.613	0.079	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.38**
		U_{14} - U_{15}			527.69	-29.10	1337	-276	164	-198	-47	147	251	414	0.605	0.388	1.00	Yes	0.408	0.253	0.67	Yes	0.040	0.347	0.39	Yes	0.039	0.318	0.36	Yes	1.00	**14.03**
		U_{15} - U_{16}			505.31	-562.17	395	278	-143	-832	-70	136	91	457	0.579	0.275	0.86	Yes	0.397	0.188	0.59	Yes	0.765	0.227	1.00	Yes	0.758	0.198	0.96	Yes	1.00	**4.82**
		U_{16} - U_{17}			506.56	-574.90	466	177	-621	-409	59	81	447	216	0.581	0.223	0.81	Yes	0.398	0.153	0.56	Yes	0.782	0.217	1.00	Yes	0.775	0.148	0.93	Yes	1.00	**4.88**
		U_{17} - U_{18}			302.54	-616.47	415	-37	-289	-480	-96	65	316	-19	0.347	0.167	0.52	Yes	0.234	0.110	0.35	Yes	0.839	0.154	1.00	Yes	0.831	0.114	0.95	Yes	1.00	**4.58**
		U_{18} - U_{19}			144.47	-542.01	230	-28	-627	-332	-96	40	511	-17	0.166	0.235	0.41	Yes	0.114	0.161	0.28	Yes	0.738	0.254	1.00	Yes	0.731	0.149	0.89	Yes	1.00	**4.42**
		U_{19} - U_{20}			88.31	-522.68	294	-456	-1085	1210	-214	238	412	-756	0.101	0.415	0.52	Yes	0.069	0.284	0.36	Yes	0.711	0.160	0.88	Yes	0.705	0.288	1.00	Yes	1.00	**8.16**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression													
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in	-----	-----	-----	-----	-----	-----	-----	-----	0.307	0.527	0.84	Yes	0.305	0.693	1.00	Yes	1.00	**46.59**
North Truss - Lower Chord	Structure 1	L_0 - L_1			-----	-169.22	2055	-2308	-683	531	-62	-227	-79	-291	-----	-----	-----	-----	-----	-----	-----	-----	0.307	0.527	0.84	Yes	0.305	0.693	1.00	Yes	1.00	**46.59**
		L_1 - L_2			465.79	-----	201	-463	97	-781	61	-192	-196	-244	0.713	0.287	1.00	Yes	0.435	0.192	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.39**
		L_2 - L_3			722.75	-153.45	26	120	-469	-620	-41	48	-98	-53	0.831	0.165	1.00	Yes	0.481	0.099	0.59	Yes	0.210	0.185	0.40	Yes	0.208	0.150	0.36	Yes	1.00	**5.63**
		L_3 - L_4			693.00	-236.25	113	342	-282	-748	87	72	-70	-74	0.797	0.195	1.00	Yes	0.474	0.126	0.60	Yes	0.323	0.181	0.51	Yes	0.320	0.181	0.51	Yes	1.00	**4.53**
		L_4 - L_5			176.74	-525.07	111	602	-744	480	58	37	-251	165	0.229	0.241	0.48	Yes	0.137	0.158	0.30	Yes	0.807	0.165	0.98	Yes	0.800	0.197	1.00	Yes	1.00	**3.61**
		L_5 - L_6			-----	-732.09	166	601	-219	307	72	121	164	138	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.145	1.00	Yes	0.845	0.133	0.98	Yes	1.00	**3.62**
		L_6 - L_7			-----	-1135.11	221	106	-525	431	126	-94	-64	171	-----	-----	-----	-----	-----	-----	-----	-----	0.924	0.038	0.97	Yes	0.914	0.083	1.00	Yes	1.00	**5.41**
		L_7 - L_8			-----	-1225.82	40	790	-97	1561	-110	-127	1	-206	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.213	1.00	Yes	0.776	0.207	0.99	Yes	1.00	**5.90**
		L_8 - L_9			-----	-1287.00	1266	-55	572	-33	-56	-56	-122	-146	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.172	1.00	Yes	0.815	0.168	0.99	Yes	1.00	**2.92**
		L_9 - L_{10}			-----	-1095.84	724	-504	2	142	-184	-272	263	229	-----	-----	-----	-----	-----	-----	-----	-----	0.892	0.077	0.97	Yes	0.882	0.114	1.00	Yes	1.00	**7.93**
		L_{10} - L_{11}			-----	-543.61	625	-317	219	-152	77	-83	112	-37	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.088	0.93	Yes	0.828	0.166	1.00	Yes	1.00	**4.37**
		L_{11} - L_{12}			126.24	-243.15	2220	-2351	306	-282	434	-834	6	7	0.163	0.768	0.94	Yes	0.098	0.501	0.60	Yes	0.374	0.216	0.60	Yes	0.370	0.623	1.00	Yes	1.00	**31.03**
		L_{12} - L_{13}			1137.74	-67.08	220	-45	-169	-507	24	28	62	13	0.898	0.097	1.00	Yes	0.574	0.058	0.64	Yes	0.063	0.089	0.16	Yes	0.062	0.090	0.16	Yes	1.00	**6.65**
		L_{13} - L_{14}			1227.39	-----	496	-1835	229	-553	-12	-227	15	22	0.722	0.272	1.00	Yes	0.468	0.166	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.71**
		L_{14} - L_{15}			1543.05	-----	-369	-27	-1818	-298	-120	-64	-324	30	0.754	0.242	1.00	Yes	0.490	0.147	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.63**
		L_{15} - L_{16}			1710.58	-----	-175	-400	-988	-1103	-84	-33	18	-378	0.836	0.159	1.00	Yes	0.536	0.094	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.90**
		L_{16} - L_{17}			1166.05	-----	-405	84	-1368	196	-80	-65	-691	96	0.737	0.262	1.00	Yes	0.478	0.163	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.30**
		L_{17} - L_{18}			794.30	-----	-149	-96	-1100	487	-37	29	-329	-704	0.692	0.302	1.00	Yes	0.443	0.183	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.42**
		L_{18} - L_{19}			98.43	-294.55	-163	269	-1545	1097	-4	-40	-1127	490	0.151	0.697	0.85	Yes	0.102	0.445	0.55	Yes	0.535	0.256	0.80	Yes	0.530	0.464	1.00	Yes	1.00	**14.98**
		L_{19} - L_{20}			69.92	-463.70	-95	-28	-530	259	-28	-6	145	33	0.107	0.189	0.30	Yes	0.065	0.127	0.20	Yes	0.842	0.117	0.96	Yes	0.835	0.159	1.00	Yes	1.00	**5.36**
	Structure 2	L_0 - L_1			9.21	-279.68	1216	-2918	-189	176	-21	-73	-45	-157	0.011	0.619	0.64	Yes	0.007	0.401	0.41	Yes	0.402	0.399	0.81	Yes	0.400	0.594	1.00	Yes	1.00	**24.67**
		L_1 - L_2			585.33	-----	547	-1326	130	-137	-93	-57	-62	-9	0.711	0.285	1.00	Yes	0.423	0.184	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.32**
		L_2 - L_3			1057.77	-----	141	-1070	-72	-99	-16	-26	61	83	0.834	0.163	1.00	Yes	0.547	0.097	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.72**
		L_3 - L_4			1318.14	-----	124	-1197	-178	-1411	683	69	51	-103	0.774	0.220	1.00	Yes	0.522	0.138	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.88**
		L_4 - L_5			1808.81	-----	-245	-139	-1265	-1487	-15	-64	-236	-110	0.843	0.156	1.00	Yes	0.558	0.093	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.42**
		L_5 - L_6			1933.86	-----	-125	-297	-755	-1766	128	-17	-116	-130	0.830	0.165	1.00	Yes	0.557	0.100	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.15**
		L_6 - L_7			1938.37	-----	-378	-26	-1695	-1849	-175	42	-95	197	0.820	0.175	1.00	Yes	0.545	0.102	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.63**
		L_7 - L_8			1388.55	-54.33	-186	342	-1563	-495	-128	7	-171	-296	0.796	0.197	1.00	Yes	0.523	0.116	0.64	Yes	0.037	0.190	0.23	Yes	0.037	0.173	0.21	Yes	1.00	**3.74**
		L_8 - L_9			1133.63	-383.25	-36	579	-1095	189	-22	18	-176	538	0.793	0.198	1.00	Yes	0.534	0.125	0.66	Yes	0.318	0.110	0.43	Yes	0.315	0.148	0.47	Yes	1.00	**4.50**
		L_9 - L_{10}			753.65	-750.65	-58	818	-1268	139	32	105	88	-305	0.673	0.240	0.92	Yes	0.392	0.149	0.55	Yes	0.794	0.149	0.95	Yes	0.788	0.203	1.00	Yes	1.00	**5.42**
		L_{10} - L_{11}			30.26	-726.50	115	533	-807	541	63	1	-369	120	0.030	0.191	0.23	Yes	0.018	0.119	0.14	Yes	0.859	0.068	0.93	Yes	0.853	0.141	1.00	Yes	1.00	**3.76**
		L_{11} - L_{12}			-----	-1044.73	100	1019	-754	747	82	213	52	136	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.123	0.99	Yes	0.857	0.139	1.00	Yes	1.00	**4.59**
		L_{12} - L_{13}			-----	-1454.11	345	-599	-1033	-254	172	-121	-39	-49	-----	-----	-----	-----	-----	-----	-----	-----	0.877	0.116	1.00	Yes	0.870	0.103	0.98	Yes	1.00	**6.28**
		L_{13} - L_{14}			-----	-1504.93	-341	1325	-841	2666	-232	-458	-85	-284	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.185	0.95	Yes	0.757	0.233	1.00	Yes	1.00	**2.71**
		L_{14} - L_{15}			-----	-1520.23	2624	-942	1178	-474	-342	-187	-539	-375	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.183	0.96	Yes	0.765	0.229	1.00	Yes	1.00	**2.74**
		L_{15} - L_{16}			-----	-1417.99	-125	-31	-1439	277	-464	-400	127	539	-----	-----	-----	-----	-----	-----	-----	-----	0.855	0.137	1.00	Yes	0.848	0.143	1.00	Yes	1.00	**6.35**
		L_{16} - L_{17}			-----	-1129.58	1382	-182	670	-46	115	-91	132	-52	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.138	0.97	Yes	0.823	0.170	1.00	Yes	1.00	**3.01**
		L_{17} - L_{18}			-----	-838.14	711	-285	319	141	-15	-111	-120	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.886	0.082	0.97	Yes	0.880	0.114	1.00	Yes	1.00	**3.36**
		L_{18} - L_{19}			-----	-648.75	639	195	254	-115	-7	32	21	120	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.120	1.00	Yes	0.865	0.123	0.99	Yes	1.00	**4.28**
		L_{19} - L_{20}			228.12	-666.35	544	347	218	-525	40	-24	150	-72	0.258	0.128	0.39	Yes	0.153	0.081	0.24	Yes	0.894	0.101	1.00	Yes	0.888	0.105	1.00	Yes	1.00	**5.59**
		L_{20} - L_{21}			777.68	-912.43	806	386	-442	-947	-125	-119	-40	70	0.620	0.152	0.78	Yes	0.407	0.090	0.50	Yes	0.862	0.118	0.98	Yes	0.856	0.138	1.00	Yes	1.00	**9.59**
		L_{21} - L_{22}			931.57	-810.30	485	606	-635	-1609	-105	-13	104	-143	0.743	0.250	1.00	Yes	0.497	0.156	0.66	Yes	0.765	0.214	0.98	Yes	0.760	0.235	1.00	Yes	1.00	**9.10**
		L_{22} - L_{23}			852.88	-366.09	228	273	-1955	-399	36	-22	-248	188	0.680	0.312	1.00	Yes	0.455	0.195	0.66	Yes	0.346	0.252	0.60	Yes	0.343	0.285	0.63	Yes	1.00	**5.19**
		L_{23} - L_{24}			990.59	-693.64	311	554	-1195	-646	41	121	295	-89	0.790	0.206	1.00	Yes	0.518	0.124	0.65	Yes	0.655	0.196	0.86	Yes	0.651	0.174	0.83	Yes	1.00	**8.53**
		L_{24} - L_{25}			292.72	-595.85	484	357	-1019	174	151	-68	-451	357	0.332	0.266	0.60	Yes	0.196	0.167	0.37	Yes	0.799	0.124	0.93	Yes	0.794	0.197	1.00	Yes	1.00	**7.54**
		L_{25} - L_{26}			-----	-629.09	264	621	-793	531	76	201	-20	-311	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.150	1.00	Yes	0.838	0.153	1.00	Yes	1.00	**7.06**
		L_{26} - L_{27}			-----	-845.90	239	223	-452	655	184	56	-208	133	-----	-----	-----	-----	-----	-----	-----	-----	0.894	0.073	0.97	Yes	0.888	0.105	1.00	Yes	1.00	**4.02**
		L_{27} - L_{28}			-----	-1170.64	126	696	-514	1133	237	442	-44	-199	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.125	0.99	Yes	0.853	0.140	1.00	Yes	1.00	**5.29**
		L_{28} - L_{29}			-----	-1488.50	241	-1027	-432	-405	460	-124	-249	127	-----	-----	-----	-----	-----	-----	-----	-----	0.898	0.099	1.00	Yes	0.890	0.102	1.00	Yes	1.00	**7.49**
		L_{29} - L_{30}			-----	-1525.76	-321	1036	-885	2557	-190	-419	-72	-187	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.170	0.95	Yes	0.768	0.223	1.00	Yes	1.00	**3.00**
		L_{30} - L_{31}			-----	-1476.78	2925	-1032	963	-349	-203	-85	-214	-155	-----	-----	-----	-----	-----	-----	-----	-----	0.750	0.181	0.94	Yes	0.743	0.255	1.00	Yes	1.00	**3.67**
		L_{31} - L_{32}			-----	-1426.87	93	-625	-1338	334	-425	51	219	-50	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.132	1.00	Yes	0.854	0.133	0.99	Yes	1.00	**8.91**
		L_{32} - L_{33}			72.08	-1007.26	1254	-510	284	-338	49	-110	145	59	0.050	0.184	0.24	Yes	0.033	0.109	0.15	Yes	0.833	0.112	0.95	Yes	0.826	0.171	1.00	Yes	1.00	**4.44**
		L_{33} - L_{34}			-----	-765.44	549	-516	192	-189	43	-286	25	2	-----	-----	-----	-----	-----	-----	-----	-----	0.905	0.045	0.96	Yes	0.899	0.096	1.00	Yes	1.00	**6.94**
		L_{34} - L_{35}			885.58	-825.36	795	125	-209	-641	-30	45	-3	349	0.790	0.169	0.96	Yes	0.460	0.104	0.57	Yes	0.873	0.127	1.00	Yes	0.867	0.127	1.00	Yes	1.00	**7.50**
		L_{35} - L_{36}			1200.55	-630.46	573	188	37	-903	85	-83	318	-193	0.840	0.152	1.00	Yes	0.566	0.095	0.67	Yes	0.523	0.099	0.63	Yes	0.519	0.122	0.65	Yes	1.00	**7.69**
		L_{36} - L_{37}			1499.56	-412.67	564	233	-721	-784	-120	-34	-592	371	0.860	0.135	1.00	Yes	0.565	0.082	0.65	Yes	0.280	0.118	0.40	Yes	0.278	0.087	0.37	Yes	1.00	**7.33**
		L_{37} - L_{38}			1915.98	-----	187	-300	-1760	-1881	8	-41	-93	-337	0.811	0.186	1.00	Yes	0.539	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.18**
		L_{38} - L_{39}			1875.02	-----	-167	-140	-1818	-1010	-49	1	-115	457	0.805	0.190	1.00	Yes	0.540	0.117	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.54**
		L_{39} - L_{40}			1762.61	-----	-69	-385	-1416	-1025	-14	-27	22	-534	0.822	0.170	1.00	Yes	0.544	0.102	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.14**
		L_{40} - L_{41}			1337.63	-----	-246	-71	-1418	-88	-36	-20	-593	146	0.786	0.213	1.00	Yes	0.529	0.133	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.47**
		L_{41} - L_{42}			1013.11	-----	-44	-193	-1219	221	-36	-67	-112	-191	0.798	0.197	1.00	Yes	0.524	0.117	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.78**
		L_{42} - L_{43}			393.00	-----	-57	-112	-1944	641	-123	-152	-551	726	0.477	0.515	1.00	Yes	0.284	0.328	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.28**
		L_{43} - L_{44}			219.95	-475.26	-60	-17	-1572	542	-155	-45	645	189	0.267	0.426	0.70	Yes	0.159	0.271	0.43	Yes	0.683	0.269	0.96	Yes	0.679	0.320	1.00	Yes	1.00	**11.49**
	Structure 3	L_0 - L_1			140.34	-407.12	600	-877	8	-103	34	152	-7	-34	0.215	0.295	0.51	Yes	0.131	0.199	0.33	Yes	0.739	0.150	0.89	Yes	0.733	0.263	1.00	Yes	1.00	**9.89**
		L_1 - L_2			290.09	-----	1039	-1728	77	-121	112	175	-65	3	0.444	0.555	1.00	Yes	0.300	0.344	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**20.08**
		L_2 - L_3			929.25	-----	220	-825	-55	-357	107	100	198	230	0.809	0.188	1.00	Yes	0.518	0.113	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.81**
		L_3 - L_4			1284.16	-----	117	-1172	22	-368	41	6	102	57	0.812	0.181	1.00	Yes	0.527	0.111	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.99**
		L_4 - L_5			1774.79	-----	-311	-202	-979	-928	71	98	-131	-165	0.867	0.130	1.00	Yes	0.557	0.076	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.71**
		L_5 - L_6			1558.77	-----	-73	-418	-296	-1897	81	81	-98	-139	0.762	0.238	1.00	Yes	0.495	0.144	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.95**
		L_6 - L_7			1292.04	-----	-402	242	-1589	97	-185	20	-248	215	0.760	0.240	1.00	Yes	0.492	0.147	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		L_7 - L_8			1113.18	-----	-67	150	-532	-310	-25	44	168	4	0.878	0.114	1.00	Yes	0.562	0.068	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.52**
		L_8 - L_9			538.38	-235.25	-132	399	-894	341	-3	45	-322	375	0.697	0.302	1.00	Yes	0.418	0.197	0.62	Yes	0.362	0.132	0.50	Yes	0.358	0.237	0.60	Yes	1.00	**5.65**
		L_9 - L_{10}			-----	-530.35	6	499	-692	324	78	149	127	102	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.104	0.92	Yes	0.808	0.183	1.00	Yes	1.00	**6.23**
		L_{10} - L_{11}			-----	-1079.65	195	72	-783	715	148	-211	-211	85	-----	-----	-----	-----	-----	-----	-----	-----	0.879	0.049	0.93	Yes	0.869	0.123	1.00	Yes	1.00	**8.74**
		L_{11} - L_{12}			-----	-1249.08	4	861	-143	1214	-185	-161	-303	-567	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.190	1.00	Yes	0.791	0.161	0.96	Yes	1.00	**4.54**
		L_{12} - L_{13}			-----	-1243.49	1308	-60	470	-23	-452	-279	-239	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.200	1.00	Yes	0.788	0.173	0.97	Yes	1.00	**3.21**
		L_{13} - L_{14}			-----	-1164.31	303	-241	-134	296	-285	-103	-127	200	-----	-----	-----	-----	-----	-----	-----	-----	0.948	0.050	1.00	Yes	0.937	0.048	0.99	Yes	1.00	**5.23**
		L_{14} - L_{15}			-----	-732.59	682	-10	254	-25	169	-77	110	6	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.132	0.99	Yes	0.845	0.151	1.00	Yes	1.00	**3.94**
		L_{15} - L_{16}			-----	-491.85	940	-867	247	7	26	-335	-61	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.756	0.190	0.95	Yes	0.749	0.249	1.00	Yes	1.00	**8.42**
		L_{16} - L_{17}			691.60	-393.82	471	74	-695	-419	113	-69	23	179	0.796	0.197	1.00	Yes	0.473	0.127	0.60	Yes	0.538	0.148	0.69	Yes	0.533	0.168	0.71	Yes	1.00	**5.11**
		L_{17} - L_{18}			709.48	-269.30	205	52	-622	-595	-3	18	174	-89	0.816	0.178	1.00	Yes	0.472	0.107	0.58	Yes	0.368	0.204	0.58	Yes	0.364	0.150	0.52	Yes	1.00	**5.84**
		L_{18} - L_{19}			426.04	-104.37	170	-40	-810	85	68	-173	-280	464	0.652	0.343	1.00	Yes	0.398	0.227	0.63	Yes	0.190	0.181	0.38	Yes	0.188	0.243	0.44	Yes	1.00	**6.33**
		L_{19} - L_{20}			45.14	-298.47	204	-324	-1281	748	22	6	1135	309	0.069	0.628	0.70	Yes	0.041	0.378	0.42	Yes	0.542	0.455	1.00	Yes	0.537	0.384	0.93	Yes	1.00	**24.03**

Moment (Start) AB Operating

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression									
					Max. Tension	Max. Comp.	Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
							Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Verticals	Structure 1	$U_0 - L_0$			-----	-311.53	-38	67	-196	260	-76	-24	53	17	-----	-----	-----	-----	-----	-----	-----	-----	0.696	0.144	0.84	Yes	0.659	0.332	1.00	Yes	1.00	**3.17**
		$U_1 - L_1$			59.84	-334.50	52	-42	-199	222	-13	-26	-81	6	0.108	0.307	0.42	Yes	0.059	0.169	0.23	Yes	0.731	0.101	0.84	Yes	0.708	0.283	1.00	Yes	1.00	**5.17**
		$U_2 - L_2$			159.29	-307.10	136	-153	-220	273	143	42	60	63	0.286	0.391	0.68	Yes	0.158	0.215	0.38	Yes	0.671	0.143	0.82	Yes	0.650	0.349	1.00	Yes	1.00	**7.75**
		$U_3 - L_3$			285.15	-263.38	224	-262	-255	297	342	102	202	141	0.513	0.478	1.00	Yes	0.282	0.263	0.55	Yes	0.577	0.182	0.76	Yes	0.557	0.379	0.94	Yes	1.00	**12.21**
		$U_4 - L_4$			-----	-354.47	194	-195	65	-64	478	168	-5	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.183	0.97	Yes	0.750	0.249	1.00	Yes	1.00	**5.07**
		$U_5 - L_5$			-----	-419.08	239	-264	75	-91	97	62	-59	-54	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.108	0.87	Yes	0.723	0.268	1.00	Yes	1.00	**3.25**
		$U_6 - L_6$			-----	-501.32	229	-238	86	-79	886	275	-214	-36	-----	-----	-----	-----	-----	-----	-----	-----	0.759	0.234	1.00	Yes	0.719	0.208	0.93	Yes	1.00	**2.99**
		$U_7 - L_7$			-----	-432.77	306	-332	133	-150	208	71	-147	39	-----	-----	-----	-----	-----	-----	-----	-----	0.723	0.140	0.87	Yes	0.668	0.327	1.00	Yes	1.00	**2.54**
		$U_8 - L_8$			-----	-1201.04	406	-499	-339	397	1095	334	-975	-292	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.130	1.00	Yes	0.833	0.093	0.93	Yes	1.00	**6.15**
		$U_9 - L_9$			-----	-649.23	-175	207	-411	472	-245	-97	-230	-174	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.127	0.91	Yes	0.733	0.262	1.00	Yes	1.00	**3.50**
		$U_{10} - L_{10}$			-----	-774.87	-124	104	-352	330	-744	-405	-570	-466	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.191	1.00	Yes	0.765	0.183	0.95	Yes	1.00	**4.38**
		$U_{11} - L_{11}$			-----	-663.07	-144	204	-386	489	-312	-241	-376	-371	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.145	0.95	Yes	0.772	0.227	1.00	Yes	1.00	**3.98**
		$U_{12} - L_{12}$			-----	-530.52	-125	122	-309	314	-117	-112	-107	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.116	0.89	Yes	0.728	0.268	1.00	Yes	1.00	**3.64**
		$U_{13} - L_{13}$			-----	-366.48	-79	99	-231	259	-44	4	-1	-6	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.098	0.84	Yes	0.702	0.296	1.00	Yes	1.00	**2.92**
		$U_{14} - L_{14}$			-----	-367.89	-44	52	-138	158	-36	-16	451	67	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.176	1.00	Yes	0.778	0.202	0.99	Yes	1.00	**5.80**
		$U_{15} - L_{15}$			89.81	-295.46	271	-293	-64	61	285	204	-66	-47	0.162	0.457	0.62	Yes	0.089	0.251	0.35	Yes	0.662	0.220	0.89	Yes	0.625	0.375	1.00	Yes	1.00	**7.24**
		$U_{16} - L_{16}$			-----	-305.96	213	-226	24	-27	1093	-54	-80	-100	-----	-----	-----	-----	-----	-----	-----	-----	0.689	0.304	1.00	Yes	0.647	0.289	0.94	Yes	1.00	**3.76**
		$U_{17} - L_{17}$			-----	-432.92	219	-241	56	-71	198	-145	-120	-109	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.110	0.92	Yes	0.747	0.244	1.00	Yes	1.00	**3.04**
		$U_{18} - L_{18}$			-----	-536.33	420	-438	137	-144	215	-204	-130	-114	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.090	0.88	Yes	0.746	0.248	1.00	Yes	1.00	**3.35**
		$U_{19} - L_{19}$			-----	-630.71	554	-532	163	-163	250	-56	-111	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.115	0.91	Yes	0.734	0.257	1.00	Yes	1.00	**3.82**
		$U_{20} - L_{20}$			-----	-581.26	279	-472	158	-257	592	78	25	3	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.225	1.00	Yes	0.677	0.219	0.90	Yes	1.00	**2.65**
	Structure 2	$U_0 - L_0$			-----	-690.51	-143	187	-485	596	-77	-13	35	6	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.117	0.95	Yes	0.740	0.253	1.00	Yes	1.00	**4.05**
		$U_1 - L_1$			-----	-724.96	-94	102	-478	510	-120	-27	-100	24	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.076	0.91	Yes	0.777	0.216	1.00	Yes	1.00	**4.77**
		$U_2 - L_2$			-----	-592.70	-82	92	-457	475	-95	-45	-8	0	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.079	0.88	Yes	0.755	0.243	1.00	Yes	1.00	**4.17**
		$U_3 - L_3$			-----	-495.33	-42	49	-223	241	100	-46	-43	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.843	0.079	0.93	Yes	0.777	0.219	1.00	Yes	1.00	**3.62**
		$U_4 - L_4$			0.21	-343.38	5	4	-204	211	285	86	-85	-8	0.000	0.352	0.36	Yes	0.000	0.194	0.20	Yes	0.779	0.163	0.95	Yes	0.727	0.270	1.00	Yes	1.00	**3.84**
		$U_5 - L_5$			100.86	-333.38	76	-71	-195	225	314	189	-47	-35	0.181	0.379	0.57	Yes	0.100	0.209	0.31	Yes	0.753	0.210	0.97	Yes	0.705	0.288	1.00	Yes	1.00	**5.36**
		$U_6 - L_6$			270.04	-282.40	172	-192	-299	312	362	253	164	-38	0.486	0.503	0.99	Yes	0.267	0.277	0.55	Yes	0.636	0.244	0.88	Yes	0.598	0.399	1.00	Yes	1.00	**11.17**
		$U_7 - L_7$			-----	-269.03	279	-324	52	-59	1005	200	37	6	-----	-----	-----	-----	-----	-----	-----	-----	0.608	0.392	1.00	Yes	0.569	0.414	0.99	Yes	1.00	**15.43**
		$U_8 - L_8$			-----	-457.36	371	-389	115	-127	127	-57	-62	-112	-----	-----	-----	-----	-----	-----	-----	-----	0.663	0.112	0.78	Yes	0.659	0.341	1.00	Yes	1.00	**4.56**
		$U_9 - L_9$			-----	-696.06	548	-583	199	-199	1379	170	-105	-119	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.201	0.98	Yes	0.746	0.247	1.00	Yes	1.00	**4.69**
		$U_{10} - L_{10}$			-----	-792.38	552	-587	180	-185	341	-172	-131	-93	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.102	0.89	Yes	0.741	0.259	1.00	Yes	1.00	**4.70**
		$U_{11} - L_{11}$			-----	-816.15	512	-533	183	-184	142	-175	-158	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.098	0.92	Yes	0.763	0.235	1.00	Yes	1.00	**4.04**
		$U_{12} - L_{12}$			-----	-886.95	519	-533	144	-115	237	-44	-127	32	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.107	0.96	Yes	0.769	0.228	1.00	Yes	1.00	**4.10**
		$U_{13} - L_{13}$			-----	-677.79	545	-539	215	-219	790	99	-137	8	-----	-----	-----	-----	-----	-----	-----	-----	0.755	0.239	1.00	Yes	0.653	0.261	0.92	Yes	1.00	**3.08**
		$U_{14} - L_{14}$			-----	-1107.36	654	-624	-306	282	1035	654	-637	-21	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.182	1.00	Yes	0.734	0.116	0.85	Yes	1.00	**5.37**
		$U_{15} - L_{15}$			-----	-698.93	-76	89	-668	663	-314	34	-33	60	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.163	0.95	Yes	0.674	0.320	1.00	Yes	1.00	**5.57**
		$U_{16} - L_{16}$			-----	-701.74	-61	33	-464	414	-820	-248	-602	-241	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.183	1.00	Yes	0.752	0.197	0.95	Yes	1.00	**3.99**
		$U_{17} - L_{17}$			-----	-641.13	-118	108	-543	533	-483	-306	-298	-303	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.156	0.95	Yes	0.746	0.252	1.00	Yes	1.00	**3.58**
		$U_{18} - L_{18}$			-----	-606.29	-112	100	-412	437	-274	-246	69	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.118	0.93	Yes	0.773	0.224	1.00	Yes	1.00	**3.22**
		$U_{19} - L_{19}$			-----	-479.51	-73	71	-287	290	-245	-149	-123	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.121	0.85	Yes	0.716	0.279	1.00	Yes	1.00	**3.93**
		$U_{20} - L_{20}$			-----	-385.61	-42	40	-216	228	-202	-95	-20	-99	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.131	0.93	Yes	0.739	0.260	1.00	Yes	1.00	**4.07**
		$U_{21} - L_{21}$			-----	-315.18	-29	30	-239	256	-84	-16	43	3	-----	-----	-----	-----	-----	-----	-----	-----	0.712	0.115	0.83	Yes	0.667	0.327	1.00	Yes	1.00	**4.57**
		$U_{22} - L_{22}$			-----	-286.49	130	-146	-170	199	1050	299	948	268	-----	-----	-----	-----	-----	-----	-----	-----	0.645	0.355	1.00	Yes	0.606	0.255	0.87	Yes	1.00	**17.39**
		$U_{23} - L_{23}$			-----	-303.21	260	-275	14	-15	234	158	-100	-4	-----	-----	-----	-----	-----	-----	-----	-----	0.685	0.173	0.86	Yes	0.642	0.351	1.00	Yes	1.00	**5.67**
		$U_{24} - L_{24}$			-----	-340.36	198	-215	43	-48	1003	95	-70	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.698	0.300	1.00	Yes	0.652	0.246	0.90	Yes	1.00	**3.44**
		$U_{25} - L_{25}$			-----	-467.26	307	-304	53	-49	380	-30	-92	10	-----	-----	-----	-----	-----	-----	-----	-----	0.703	0.120	0.83	Yes	0.698	0.296	1.00	Yes	1.00	**3.71**
		$U_{26} - L_{26}$			-----	-566.39	500	-527	72	-63	426	-40	-149	39	-----	-----	-----	-----	-----	-----	-----	-----	0.755	0.115	0.87	Yes	0.722	0.270	1.00	Yes	1.00	**4.02**
		$U_{27} - L_{27}$			-----	-629.96	561	-564	81	-79	250	156	-186	53	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.094	0.88	Yes	0.733	0.262	1.00	Yes	1.00	**3.62**
		$U_{28} - L_{28}$			-----	-684.22	477	-455	54	-34	1117	158	-230	74	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.207	1.00	Yes	0.733	0.202	0.94	Yes	1.00	**3.54**
		$U_{29} - L_{29}$			-----	-695.02	664	-653	101	-111	485	103	-173	37	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.218	1.00	Yes	0.670	0.318	0.99	Yes	1.00	**4.69**
		$U_{30} - L_{30}$			-----	-1172.88	735	-726	-726	659	1426	118	-1036	225	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.135	1.00	Yes	0.778	0.130	0.91	Yes	1.00	**8.51**
		$U_{31} - L_{31}$			-----	-741.07	-97	97	-581	576	-313	-19	-48	35	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.163	0.99	Yes	0.714	0.278	1.00	Yes	1.00	**4.88**
		$U_{32} - L_{32}$			-----	-844.05	-78	52	-437	395	-688	-264	-476	-236	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.190	1.00	Yes	0.732	0.187	0.92	Yes	1.00	**4.35**
		$U_{33} - L_{33}$			-----	-843.76	-120	105	-415	431	-435	-347	-29	-272	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.146	1.00	Yes	0.789	0.190	0.98	Yes	1.00	**4.28**
		$U_{34} - L_{34}$			-----	-811.08	-123	120	-507	543	-197	-248	-221	-390	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.127	0.93	Yes	0.758	0.240	1.00	Yes	1.00	**5.69**
		$U_{35} - L_{35}$			-----	-707.12	-144	147	-517	556	83	38	-31	-102	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.074	0.87	Yes	0.758	0.236	1.00	Yes	1.00	**5.22**
		$U_{36} - L_{36}$			-----	-472.88	-82	92	-339	357	89	71	105	35	-----	-----	-----	-----	-----	-----	-----	-----	0.686	0.101	0.79	Yes	0.681	0.312	1.00	Yes	1.00	**4.30**
		$U_{37} - L_{37}$			-----	-259.46	-42	50	-296	350	75	31	660	159	-----	-----	-----	-----	-----	-----	-----	-----	0.586	0.327	0.92	Yes	0.549	0.447	1.00	Yes	1.00	**14.80**
		$U_{38} - L_{38}$			300.73	-177.72	258	-255	-230	254	432	374	219	119	0.541	0.455	1.00	Yes	0.297	0.250	0.55	Yes	0.400	0.190	0.59	Yes	0.376	0.330	0.71	Yes	1.00	**13.98**
		$U_{39} - L_{39}$			94.31	-279.08	159	-185	-82	80	1249	52	61	0	0.170	0.598	0.77	Yes	0.093	0.329	0.43	Yes	0.630	0.366	1.00	Yes	0.591	0.236	0.83	Yes	1.00	**4.99**
		$U_{40} - L_{40}$			33.37	-339.15	214	-217	-30	23	304	-81	14	-22	0.060	0.366	0.43	Yes	0.033	0.201	0.24	Yes	0.769	0.122	0.90	Yes	0.718	0.278	1.00	Yes	1.00	**4.01**
		$U_{41} - L_{41}$			-----	-487.50	240	-254	12	-15	206	-122	10	-20	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.086	0.92	Yes	0.765	0.231	1.00	Yes	1.00	**3.73**
		$U_{42} - L_{42}$			-----	-583.31	469	-484	35	-44	267	-167	11	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.076	0.86	Yes	0.743	0.248	1.00	Yes	1.00	**3.98**
		$U_{43} - L_{43}$			-----	-697.19	574	-571	53	-67	331	90	-58	-57	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.106	0.91	Yes	0.747	0.243	1.00	Yes	1.00	**4.39**
		$U_{44} - L_{44}$			-----	-636.78	283	-456	109	-121	936	159	-161	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.232	1.00	Yes	0.682	0.193	0.88	Yes	1.00	**3.32**
	Structure 3	$U_0 - L_0$			-----	-636.30	-134	180	-484	556	-59	-8	231	30	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.153	1.00	Yes	0.741	0.258	1.00	Yes	1.00	**4.57**
		$U_1 - L_1$			-----	-668.51	-104	116	-449	474	-119	-3	-19	128	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.081	0.92	Yes	0.778	0.220	1.00	Yes	1.00	**5.22**
		$U_2 - L_2$			-----	-541.02	-102	108	-403	421	-142	-43	20	25	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.088	0.89	Yes	0.752	0.239	1.00	Yes	1.00	**4.32**
		$U_3 - L_3$			-----	-450.34	-41	53	-198	220	50	-62	1	-21	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.084	0.93	Yes	0.777	0.223	1.00	Yes	1.00	**3.74**
		$U_4 - L_4$			-----	-328.57	-11	17	-218	231	232	50	-40	14	-----	-----	-----	-----	-----	-----	-----	-----	0.740	0.147	0.89	Yes	0.695	0.296	1.00	Yes	1.00	**4.45**
		$U_5 - L_5$			60.21	-307.96	47	-45	-247	268	230	155	-4	19	0.108	0.409	0.52	Yes	0.060	0.225	0.29	Yes	0.690	0.185	0.88	Yes	0.652	0.342	1.00	Yes	1.00	**5.86**
		$U_6 - L_6$			-----	-284.89	88	-94	36	-38	383	61	1162	392	-----	-----	-----	-----	-----	-----	-----	-----	0.636	0.362	1.00	Yes	0.603	0.120	0.73	Yes	1.00	**4.32**
		$U_7 - L_7$			-----	-359.95	247	-267	69	-82	86	-19	-8	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.107	0.84	Yes	0.690	0.305	1.00	Yes	1.00	**3.55**
		$U_8 - L_8$			-----	-511.77	308	-317	111	-108	1120	217	-61	-120	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.256	1.00	Yes	0.702	0.271	0.98	Yes	1.00	**3.69**
		$U_9 - L_9$			-----	-650.27	415	-511	129	-171	238	-72	-110	-122	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.120	0.90	Yes	0.757	0.237	1.00	Yes	1.00	**4.01**
		$U_{10} - L_{10}$			-----	-797.63	390	-401	118	-115	383	85	-199	-93	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.128	0.96	Yes	0.787	0.208	1.00	Yes	1.00	**4.45**
		$U_{11} - L_{11}$			-----	-643.59	429	-488	168	-193	361	135	-111	-11	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.147	0.92	Yes	0.727	0.271	1.00	Yes	1.00	**3.25**
		$U_{12} - L_{12}$			-----	-1148.57	440	-578	-252	266	1134	525	-675	-108	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.163	1.00	Yes	0.796	0.108	0.91	Yes	1.00	**5.80**
		$U_{13} - L_{13}$			-----	-444.31	-70	81	-292	315	-209	-1	-27	45	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.144	0.89	Yes	0.685	0.310	1.00	Yes	1.00	**3.85**
		$U_{14} - L_{14}$			-----	-518.14	-47	28	-222	212	-678	-309	-496	-261	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.208	1.00	Yes	0.743	0.194	0.94	Yes	1.00	**4.11**
		$U_{15} - L_{15}$			-----	-438.99	-48	52	-228	239	-243	-173	-311	-269	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.155	0.95	Yes	0.757	0.242	1.00	Yes	1.00	**3.73**
		$U_{16} - L_{16}$			-----	-350.03	-52	52	-190	196	-114	-96	172	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.120	0.90	Yes	0.741	0.251	1.00	Yes	1.00	**5.10**
		$U_{17} - L_{17}$			309.87	-212.99	204	-223	-269	311	-46	140	-26	100	0.557	0.438	1.00	Yes	0.307	0.241	0.55	Yes	0.467	0.131	0.60	Yes	0.451	0.397	0.85	Yes	1.00	**13.19**
		$U_{18} - L_{18}$			142.78	-249.75	153	-198	-131	147	1612	373	-149	22	0.257	0.720	0.98	Yes	0.141	0.396	0.54	Yes	0.546	0.452	1.00	Yes	0.528	0.253	0.79	Yes	1.00	**5.76**
		$U_{19} - L_{19}$			84.04	-312.32	260	-242	-87	72	252	51	-91	20	0.151	0.405	0.56	Yes	0.083	0.223	0.31	Yes	0.682	0.143	0.83	Yes	0.661	0.332	1.00	Yes	1.00	**4.57**
		$U_{20} - L_{20}$			69.46	-236.39	183	-201	-39	42	1375	441	-230	-74	0.125	0.655	0.78	Yes	0.076	0.360	0.44	Yes	0.528	0.471	1.00	Yes	0.500	0.256	0.76	Yes	1.00	**10.30**

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Diagonals	Structure 1	$U_0 - L_1$	625.82	-70.93	-4	-11	-125	72	18	48	-36	-93	0.821	0.169	1.00	Yes	0.496	0.093	0.59	Yes	0.121	0.096	0.22	Yes	0.109	0.146	0.26	Yes	1.00	**5.89**
		$U_1 - L_2$	461.20	-168.33	31	-25	-90	9	34	20	-163	-120	0.829	0.162	1.00	Yes	0.456	0.089	0.55	Yes	0.386	0.149	0.54	Yes	0.356	0.115	0.48	Yes	1.00	**6.38**
		$U_2 - L_3$	370.51	-336.70	70	-35	-139	1	76	56	-116	-126	0.666	0.214	0.89	Yes	0.367	0.118	0.49	Yes	0.775	0.224	1.00	Yes	0.712	0.178	0.90	Yes	1.00	**9.57**
		$U_3 - L_4$	-----	-322.33	55	-6	-70	-113	125	127	-154	-377	-----	-----	-----	-----	-----	-----	-----	-----	0.737	0.259	1.00	Yes	0.682	0.144	0.83	Yes	1.00	**7.01**
		$U_4 - L_4$	539.55	-----	-7	68	-106	0	48	4	-422	-371	0.791	0.206	1.00	Yes	0.435	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.22**
		$U_5 - L_5$	605.57	-----	-23	162	-188	212	225	97	-900	-326	0.716	0.284	1.00	Yes	0.394	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.82**
		$U_5 - L_6$	637.44	-----	-72	126	-288	244	410	212	-347	-367	0.754	0.239	1.00	Yes	0.414	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.47**
		$U_6 - L_7$	610.03	-----	29	163	-90	299	579	244	-238	-143	0.721	0.275	1.00	Yes	0.397	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.50**
		$U_8 - L_8$	973.91	-----	103	244	-80	375	275	14	230	417	0.779	0.220	1.00	Yes	0.482	0.124	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.00**
		$U_9 - L_{10}$	989.96	-----	-73	87	-295	279	188	138	389	590	0.791	0.207	1.00	Yes	0.490	0.117	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.70**
		$U_{10} - L_{11}$	981.01	-----	-48	168	-233	202	139	193	339	455	0.829	0.168	1.00	Yes	0.513	0.095	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.29**
		$U_{11} - L_{12}$	833.01	-----	-67	55	-269	107	27	135	254	329	0.824	0.174	1.00	Yes	0.453	0.096	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		$U_{12} - L_{13}$	644.65	-----	-79	65	-201	172	-34	-17	162	72	0.786	0.208	1.00	Yes	0.494	0.116	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_{13} - L_{14}$	460.69	-----	-31	15	-107	30	-108	-85	27	-59	0.829	0.168	1.00	Yes	0.456	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		$U_{15} - L_{14}$	231.60	-215.12	40	-55	-125	-90	2	-19	-882	-484	0.417	0.415	0.84	Yes	0.229	0.228	0.46	Yes	0.504	0.495	1.00	Yes	0.455	0.159	0.62	Yes	1.00	**9.36**
		$U_{16} - L_{15}$	297.91	-12.85	-11	-6	-119	72	-84	-81	-1057	-212	0.536	0.458	1.00	Yes	0.295	0.252	0.55	Yes	0.030	0.328	0.36	Yes	0.027	0.152	0.18	Yes	1.00	**4.17**
		$U_{17} - L_{16}$	490.27	-----	-32	12	-138	89	-105	-126	-576	-535	0.719	0.274	1.00	Yes	0.395	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.08**
		$U_{18} - L_{17}$	583.47	-----	-109	73	-302	244	-106	-113	-742	-523	0.690	0.306	1.00	Yes	0.379	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		$U_{19} - L_{18}$	641.38	-----	-130	85	-338	249	-61	-101	-756	-532	0.695	0.297	1.00	Yes	0.382	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.19**
		$U_{20} - L_{19}$	677.94	-----	-66	70	-393	311	-120	-52	-371	-234	0.734	0.262	1.00	Yes	0.404	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.75**
	Structure 2	$U_0 - L_1$	797.12	-----	-96	81	-423	390	-54	-30	-22	-70	0.789	0.207	1.00	Yes	0.434	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.99**
		$U_1 - L_2$	804.85	-----	-72	51	-396	329	-81	-6	-128	-43	0.796	0.203	1.00	Yes	0.438	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.10**
		$U_2 - L_3$	658.01	-----	-62	46	-348	277	1	111	-21	-17	0.778	0.217	1.00	Yes	0.428	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.28**
		$U_3 - L_4$	595.41	-----	-24	4	-192	138	135	76	-38	-46	0.794	0.203	1.00	Yes	0.437	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.16**
		$U_4 - L_5$	428.97	-86.67	17	-25	-149	102	105	-95	-111	-12	0.772	0.222	1.00	Yes	0.424	0.122	0.55	Yes	0.214	0.091	0.31	Yes	0.183	0.190	0.38	Yes	1.00	**4.95**
		$U_5 - L_6$	425.82	-220.16	66	-64	-139	60	11	-173	-71	3	0.766	0.228	1.00	Yes	0.421	0.125	0.55	Yes	0.520	0.180	0.70	Yes	0.466	0.177	0.65	Yes	1.00	**7.09**
		$U_6 - L_7$	40.02	-392.15	87	-80	-138	-72	-40	-186	-15	-196	0.065	0.209	0.28	Yes	0.036	0.115	0.16	Yes	0.840	0.160	1.00	Yes	0.751	0.158	0.91	Yes	1.00	**10.05**
		$U_8 - L_7$	523.42	-----	-58	46	-226	70	-142	-214	-629	-497	0.667	0.331	1.00	Yes	0.420	0.189	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.71**
		$U_8 - L_8$	611.89	-----	-122	111	-311	196	-32	-73	-1077	-458	0.663	0.336	1.00	Yes	0.365	0.185	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
		$U_{10} - L_9$	758.06	-----	-87	135	-320	202	25	-38	-614	-667	0.750	0.248	1.00	Yes	0.412	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.73**
		$U_{11} - L_{10}$	826.63	-----	-91	153	-336	266	192	57	-719	-544	0.753	0.241	1.00	Yes	0.414	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.45**
		$U_{12} - L_{11}$	835.09	-----	-101	167	-356	341	325	156	-636	-455	0.761	0.238	1.00	Yes	0.418	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
		$U_{13} - L_{12}$	743.15	-----	-143	146	-428	380	375	157	-417	-239	0.735	0.261	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.99**
		$U_{14} - L_{13}$	721.99	-----	-2	149	-265	416	549	207	-565	-186	0.714	0.277	1.00	Yes	0.393	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.63**
		$U_{14} - L_{15}$	628.57	-----	110	127	-206	341	321	-177	27	99	0.743	0.252	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.99**
		$U_{15} - L_{16}$	629.18	-----	-30	38	-374	358	-66	-19	208	131	0.744	0.250	1.00	Yes	0.409	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.48**
		$U_{16} - L_{17}$	704.26	-----	-38	80	-305	372	-219	101	40	242	0.763	0.230	1.00	Yes	0.420	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.64**
		$U_{17} - L_{18}$	649.03	-----	-48	80	-283	297	-47	176	184	327	0.767	0.228	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		$U_{18} - L_{19}$	618.03	-----	-19	85	-303	308	80	78	497	243	0.731	0.264	1.00	Yes	0.402	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.01**
		$U_{19} - L_{20}$	599.70	-----	-10	45	-208	174	0	39	236	214	0.765	0.234	1.00	Yes	0.421	0.131	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.81**
		$U_{20} - L_{21}$	436.95	-----	-11	24	-132	112	-24	31	127	49	0.786	0.206	1.00	Yes	0.432	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.48**
		$U_{21} - L_{22}$	418.98	-6.97	7	9	-159	4	-52	117	119	-12	0.754	0.237	1.00	Yes	0.414	0.130	0.55	Yes	0.016	0.147	0.17	Yes	0.015	0.203	0.22	Yes	1.00	**7.53**
		$U_{23} - L_{22}$	319.74	-----	10	31	-147	-30	202	134	-790	-445	0.575	0.417	1.00	Yes	0.316	0.229	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.60**
		$U_{24} - L_{23}$	332.48	-----	-10	28	-109	84	78	35	-876	-168	0.598	0.393	1.00	Yes	0.329	0.216	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.83**
		$U_{25} - L_{24}$	548.23	-----	-17	65	-193	161	193	90	-605	-596	0.699	0.296	1.00	Yes	0.384	0.169	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		$U_{26} - L_{25}$	619.19	-----	-16	83	-271	253	302	156	-627	-425	0.732	0.267	1.00	Yes	0.403	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.16**
		$U_{27} - L_{26}$	649.26	-----	-37	87	-280	291	369	186	-323	-240	0.768	0.231	1.00	Yes	0.422	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.40**
		$U_{28} - L_{27}$	647.31	-----	-39	85	-298	353	407	238	-660	-105	0.701	0.289	1.00	Yes	0.386	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		$U_{29} - L_{28}$	623.18	-----	-51	61	-361	348	288	149	-154	-253	0.737	0.257	1.00	Yes	0.405	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_{30} - L_{29}$	584.07	-----	59	71	-190	328	646	250	-468	-182	0.691	0.303	1.00	Yes	0.380	0.167	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.89**
		$U_{30} - L_{31}$	743.45	-----	73	155	-287	419	463	6	8	50	0.736	0.264	1.00	Yes	0.405	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.56**
		$U_{31} - L_{32}$	759.84	-----	-60	69	-440	406	-46	16	252	149	0.752	0.242	1.00	Yes	0.413	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.55**
		$U_{32} - L_{33}$	875.23	-----	-55	97	-336	363	-184	133	98	328	0.797	0.199	1.00	Yes	0.439	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.20**
		$U_{33} - L_{34}$	859.71	-----	-54	97	-356	285	33	243	271	431	0.783	0.210	1.00	Yes	0.431	0.115	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.98**
		$U_{34} - L_{35}$	811.44	-----	-54	89	-329	228	127	140	265	206	0.803	0.192	1.00	Yes	0.442	0.106	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.99**
		$U_{35} - L_{36}$	730.54	-----	-83	95	-351	242	39	47	125	45	0.791	0.200	1.00	Yes	0.435	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.72**
		$U_{36} - L_{37}$	601.72	-----	-47	53	-240	109	-48	-48	-16	-72	0.767	0.229	1.00	Yes	0.483	0.127	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.77**
		$U_{38} - L_{37}$	-----	-304.24	67	-56	-71	-92	-32	51	-641	-338	-----	-----	-----	-----	-----	-----	-----	-----	0.657	0.341	1.00	Yes	0.583	0.105	0.69	Yes	1.00	**8.10**
		$U_{39} - L_{38}$	247.94	-193.78	59	-56	-94	23	-35	-19	-1409	-249	0.446	0.528	0.98	Yes	0.245	0.290	0.54	Yes	0.462	0.531	1.00	Yes	0.410	0.120	0.53	Yes	1.00	**6.14**
		$U_{40} - L_{39}$	368.20	-106.49	25	-28	-136	87	-37	-36	-495	-544	0.662	0.332	1.00	Yes	0.364	0.182	0.55	Yes	0.255	0.280	0.54	Yes	0.225	0.174	0.40	Yes	1.00	**4.81**
		$U_{41} - L_{40}$	530.52	-----	-8	-6	-171	120	-71	-60	-639	-412	0.707	0.290	1.00	Yes	0.389	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.69**
		$U_{42} - L_{41}$	586.45	-----	-34	19	-311	251	-47	-46	-685	-478	0.693	0.300	1.00	Yes	0.381	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.75**
		$U_{43} - L_{42}$	712.48	-----	-50	32	-382	301	11	-31	-731	-538	0.705	0.287	1.00	Yes	0.388	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.00**
		$U_{44} - L_{43}$	760.13	-----	-23	30	-439	392	-50	19	-189	-268	0.752	0.244	1.00	Yes	0.414	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.51**
	Structure 3	$U_0 - L_1$	700.88	-----	-108	89	-422	338	-64	-53	28	-133	0.759	0.238	1.00	Yes	0.418	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.16**
		$U_1 - L_2$	726.75	-----	-92	61	-342	269	-127	-45	-175	-74	0.787	0.204	1.00	Yes	0.433	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.42**
		$U_2 - L_3$	664.07	-----	-88	54	-352	270	-47	80	-16	-4	0.785	0.214	1.00	Yes	0.432	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.11**
		$U_3 - L_4$	557.64	-----	-24	5	-161	111	77	49	2	-30	0.818	0.182	1.00	Yes	0.450	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.53**
		$U_4 - L_5$	429.09	-49.17	-2	-13	-148	102	52	-106	-92	-53	0.772	0.219	1.00	Yes	0.424	0.121	0.55	Yes	0.117	0.090	0.21	Yes	0.104	0.189	0.30	Yes	1.00	**5.65**
		$U_5 - L_6$	401.78	-208.06	38	-54	-161	-60	-37	-216	-148	-164	0.723	0.268	1.00	Yes	0.397	0.148	0.55	Yes	0.487	0.313	0.81	Yes	0.440	0.206	0.65	Yes	1.00	**9.69**
		$U_7 - L_6$	410.57	-----	-26	7	-99	14	-151	-198	-443	-365	0.738	0.255	1.00	Yes	0.406	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.10**
		$U_8 - L_7$	536.34	-----	-67	52	-182	141	-129	-138	-952	-374	0.654	0.345	1.00	Yes	0.411	0.198	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.47**
		$U_8 - L_8$	761.49	-----	-62	82	-261	80	-91	-140	-792	-813	0.753	0.243	1.00	Yes	0.414	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.29**
		$U_{10} - L_9$	919.31	-----	-44	132	-242	174	91	-3	-827	-694	0.777	0.221	1.00	Yes	0.481	0.126	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		$U_{11} - L_{10}$	955.56	-----	-74	125	-297	260	362	202	-751	-555	0.764	0.228	1.00	Yes	0.473	0.129	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.60**
		$U_{12} - L_{11}$	936.33	-----	55	175	-90	360	671	282	-576	-334	0.749	0.246	1.00	Yes	0.464	0.139	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.75**
		$U_{12} - L_{13}$	667.63	-----	87	177	-105	312	66	-152	3	129	0.789	0.205	1.00	Yes	0.434	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.27**
		$U_{13} - L_{14}$	651.91	-----	-16	67	-300	265	-22	22	13	278	0.771	0.222	1.00	Yes	0.424	0.122	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.61**
		$U_{14} - L_{15}$	695.41	-----	14	161	-196	228	-20	124	102	241	0.822	0.174	1.00	Yes	0.452	0.095	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.50**
		$U_{15} - L_{16}$	567.17	-----	7	78	-112	9	129	212	45	150	0.832	0.163	1.00	Yes	0.457	0.090	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.92**
		$U_{17} - L_{16}$	-----	-320.43	61	1	-56	-100	232	201	-383	-169	-----	-----	-----	-----	-----	-----	-----	-----	0.733	0.264	1.00	Yes	0.678	0.128	0.81	Yes	1.00	**6.88**
		$U_{18} - L_{17}$	146.74	-257.51	55	-29	-80	-12	273	182	-1075	-214	0.264	0.414	0.68	Yes	0.145	0.228	0.38	Yes	0.593	0.401	1.00	Yes	0.545	0.102	0.65	Yes	1.00	**5.98**
		$U_{19} - L_{18}$	383.75	-184.41	36	-24	-103	21	250	195	-616	-561	0.690	0.310	1.00	Yes	0.380	0.170	0.55	Yes	0.423	0.319	0.75	Yes	0.390	0.131	0.53	Yes	1.00	**4.88**
		$U_{20} - L_{19}$	566.96	-----	25	22	-49	23	-780	-456	-220	-210	0.744	0.253	1.00	Yes	0.449	0.139	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.01**

Moment (Start) AB Operating

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield								
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
Center Truss - Upper Chord	Structure 1	U_0 - U_1	-----	-562.98	121	-655	-351	-554	301	-371	293	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.228	1	Yes	0.759	0.156	0.92	Yes	1.00	**9.82**
		U_1 - U_2	87.55	-577.56	-31	100	-211	-633	-48	-232	258	-166	0.100	0.194	0.30	Yes	0.069	0.133	0.21	Yes	0.786	0.209	1	Yes	0.779	0.150	0.93	Yes	1.00	**6.14**
		U_2 - U_3	282.50	-641.60	-40	390	-536	-210	-59	-89	264	-262	0.324	0.172	0.50	Yes	0.218	0.113	0.34	Yes	0.873	0.116	0.99	Yes	0.865	0.128	1.00	Yes	1.00	**6.59**
		U_3 - U_4	369.96	-550.79	124	297	-322	-762	-116	-96	20	-171	0.424	0.210	0.64	Yes	0.291	0.144	0.44	Yes	0.749	0.244	1	Yes	0.743	0.181	0.93	Yes	1.00	**5.34**
		U_4 - U_5	382.95	-561.77	139	296	-1006	-107	-216	-20	-87	-96	0.439	0.276	0.72	Yes	0.301	0.189	0.50	Yes	0.764	0.231	1	Yes	0.758	0.239	1.00	Yes	1.00	**5.49**
		U_5 - U_6	681.81	-331.03	285	432	-354	142	-388	-11	-9	-662	0.781	0.214	1.00	Yes	0.527	0.142	0.67	Yes	0.450	0.209	0.66	Yes	0.446	0.103	0.55	Yes	1.00	**7.26**
		U_6 - U_7	886.52	-----	344	206	-454	9	-359	147	-104	-102	0.848	0.146	1.00	Yes	0.592	0.100	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.97**
		U_7 - U_8	986.80	-----	-11	1191	-630	1723	-252	450	-385	54	0.684	0.307	1.00	Yes	0.477	0.209	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.11**
		U_8 - U_9	856.61	-----	1499	-495	617	-162	67	342	31	184	0.702	0.293	1.00	Yes	0.480	0.200	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		U_9 - U_{10}	714.01	-----	431	-76	61	27	387	788	157	301	0.774	0.223	1.00	Yes	0.525	0.150	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.58**
		U_{10} - U_{11}	-----	-345.20	1788	-2472	84	-180	1214	303	243	55	-----	-----	-----	-----	-----	-----	-----	-----	0.444	0.448	0.9	Yes	0.441	0.554	1.00	Yes	1.00	**31.43**
		U_{11} - U_{12}	-----	-892.27	217	-103	-48	-729	161	102	408	211	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.149	1	Yes	0.837	0.121	0.96	Yes	1.00	**5.41**
		U_{12} - U_{13}	-----	-1283.46	8	-154	-351	-496	197	-45	789	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.132	1	Yes	0.857	0.068	0.93	Yes	1.00	**6.00**
		U_{13} - U_{14}	-----	-1388.91	-104	-353	-472	-1432	150	65	141	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.187	1	Yes	0.796	0.158	0.96	Yes	1.00	**4.72**
		U_{14} - U_{15}	-----	-1342.91	-254	-188	-1555	-578	182	-56	264	-47	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.213	1	Yes	0.770	0.172	0.95	Yes	1.00	**4.18**
		U_{15} - U_{16}	-----	-1509.99	-26	-409	-594	-643	11	-57	595	178	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.116	1	Yes	0.866	0.071	0.94	Yes	1.00	**6.71**
		U_{16} - U_{17}	-----	-1419.86	-314	-185	-1271	-458	47	-171	177	-237	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.171	1	Yes	0.814	0.140	0.96	Yes	1.00	**5.38**
		U_{17} - U_{18}	-----	-1049.23	-157	-109	-677	15	-152	-206	-137	-559	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.160	1	Yes	0.821	0.110	0.94	Yes	1.00	**5.62**
		U_{18} - U_{19}	-----	-726.64	-191	-30	-654	39	-173	-161	-218	-313	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.171	1	Yes	0.818	0.132	0.95	Yes	1.00	**5.27**
		U_{19} - U_{20}	-----	-655.19	-152	-117	-1305	344	-40	25	120	-505	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.256	1	Yes	0.737	0.263	1.00	Yes	1.00	**13.32**
	Structure 2	U_0 - U_1	-----	-630.49	578	-1457	-83	-29	529	274	17	-62	-----	-----	-----	-----	-----	-----	-----	-----	0.749	0.226	0.98	Yes	0.745	0.247	1.00	Yes	1.00	**12.52**
		U_1 - U_2	-----	-827.15	-86	-132	-145	-917	45	17	359	-149	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.187	1	Yes	0.798	0.139	0.94	Yes	1.00	**8.93**
		U_2 - U_3	-----	-1144.02	-37	-1122	-261	-879	1130	128	313	-39	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.181	1	Yes	0.812	0.114	0.93	Yes	1.00	**5.96**
		U_3 - U_4	-----	-1453.84	-340	-232	-916	-1135	96	-347	436	348	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.166	1	Yes	0.828	0.101	0.93	Yes	1.00	**4.90**
		U_4 - U_5	-----	-1549.70	-335	-261	-1006	-1462	-111	-391	583	32	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.190	1	Yes	0.796	0.121	0.92	Yes	1.00	**4.65**
		U_5 - U_6	-----	-1635.32	-331	111	-1282	-563	-155	-329	584	-2	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.153	1	Yes	0.840	0.106	0.95	Yes	1.00	**4.82**
		U_6 - U_7	-----	-1381.58	-206	-23	-885	-1472	-118	-280	347	-159	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.204	1	Yes	0.787	0.131	0.92	Yes	1.00	**4.11**
		U_7 - U_8	-----	-1377.17	-124	-153	-1580	-744	-207	-232	-145	-338	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.203	1	Yes	0.784	0.141	0.93	Yes	1.00	**3.99**
		U_8 - U_9	63.81	-1260.71	-208	209	-926	-303	-299	-201	335	-87	0.037	0.126	0.17	Yes	0.026	0.083	0.11	Yes	0.861	0.134	1	Yes	0.855	0.098	0.96	Yes	1.00	**4.97**
		U_9 - U_{10}	212.46	-941.61	-34	345	-1382	-101	-316	-140	153	-92	0.156	0.202	0.36	Yes	0.106	0.137	0.25	Yes	0.817	0.176	1	Yes	0.813	0.168	0.99	Yes	1.00	**4.41**
		U_{10} - U_{11}	729.00	-834.33	246	507	-977	-118	-201	-38	-220	-384	0.616	0.185	0.81	Yes	0.419	0.120	0.54	Yes	0.834	0.159	1	Yes	0.829	0.138	0.97	Yes	1.00	**7.18**
		U_{11} - U_{12}	899.15	-----	241	560	-1248	761	-380	-158	-395	-508	0.759	0.238	1.00	Yes	0.510	0.159	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.60**
		U_{12} - U_{13}	1244.65	-----	432	62	-593	-349	-466	14	-870	-793	0.840	0.158	1.00	Yes	0.599	0.109	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.98**
		U_{13} - U_{14}	1253.76	-----	-207	2210	-1199	3782	-344	300	-257	117	0.617	0.374	1.00	Yes	0.436	0.244	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.49**
		U_{14} - U_{15}	1305.31	-----	3510	-530	1551	-121	-139	460	-120	241	0.642	0.356	1.00	Yes	0.454	0.233	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.14**
		U_{15} - U_{16}	1335.89	-----	219	864	-442	-836	-409	91	620	1104	0.808	0.192	1.00	Yes	0.575	0.132	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.56**
		U_{16} - U_{17}	1012.52	-----	1334	-471	319	35	799	452	349	183	0.746	0.252	1.00	Yes	0.496	0.165	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.36**
		U_{17} - U_{18}	607.23	-452.37	1246	-1782	94	-1143	194	-382	555	468	0.610	0.384	1.00	Yes	0.406	0.254	0.66	Yes	0.538	0.263	0.81	Yes	0.534	0.302	0.84	Yes	1.00	**17.64**
		U_{18} - U_{19}	852.34	-100.97	626	548	-37	-452	-237	-72	215	17	0.856	0.141	1.00	Yes	0.561	0.090	0.66	Yes	0.120	0.130	0.26	Yes	0.119	0.106	0.23	Yes	1.00	**9.72**
		U_{19} - U_{20}	538.30	-754.70	424	323	-272	-709	-158	66	383	244	0.505	0.165	0.67	Yes	0.335	0.108	0.45	Yes	0.838	0.154	1	Yes	0.833	0.114	0.95	Yes	1.00	**6.85**
		U_{20} - U_{21}	460.02	-923.59	263	275	-467	-482	-104	-25	719	-98	0.357	0.148	0.51	Yes	0.250	0.100	0.35	Yes	0.849	0.144	1	Yes	0.843	0.070	0.92	Yes	1.00	**6.69**
		U_{21} - U_{22}	315.42	-856.72	123	132	-573	-1094	-42	56	49	-155	0.245	0.175	0.43	Yes	0.173	0.117	0.30	Yes	0.788	0.206	1	Yes	0.782	0.158	0.95	Yes	1.00	**5.12**
		U_{22} - U_{23}	269.03	-826.95	126	94	-1353	-519	-43	-22	89	-131	0.209	0.210	0.42	Yes	0.148	0.140	0.29	Yes	0.760	0.236	1	Yes	0.755	0.196	0.96	Yes	1.00	**4.57**
		U_{23} - U_{24}	826.57	-822.77	547	371	-1039	-212	-529	74	-176	-490	0.641	0.208	0.85	Yes	0.449	0.136	0.59	Yes	0.756	0.237	1	Yes	0.751	0.151	0.91	Yes	1.00	**11.76**
		U_{24} - U_{25}	431.81	-759.51	234	319	-883	-212	-208	44	89	-146	0.405	0.169	0.58	Yes	0.268	0.111	0.38	Yes	0.843	0.154	1	Yes	0.838	0.141	0.98	Yes	1.00	**5.88**
		U_{25} - U_{26}	786.84	-610.17	481	539	-952	348	-270	154	-42	-233	0.790	0.201	1.00	Yes	0.518	0.128	0.65	Yes	0.725	0.192	0.92	Yes	0.721	0.162	0.89	Yes	1.00	**9.37**
		U_{26} - U_{27}	745.18	-----	369	408	-1221	622	-198	94	-275	-144	0.748	0.248	1.00	Yes	0.498	0.164	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.58**
		U_{27} - U_{28}	1083.46	-----	427	546	-982	854	-286	156	-415	-677	0.798	0.194	1.00	Yes	0.531	0.128	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.79**
		U_{28} - U_{29}	1432.09	-----	346	6	-754	-137	-213	333	-519	-189	0.866	0.130	1.00	Yes	0.616	0.088	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.73**
		U_{29} - U_{30}	1275.42	-----	-77	2009	-605	3562	-81	545	-472	239	0.627	0.367	1.00	Yes	0.444	0.240	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.23**
		U_{30} - U_{31}	1264.47	-----	3625	-861	1500	-256	58	538	118	333	0.622	0.372	1.00	Yes	0.440	0.244	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.42**
		U_{31} - U_{32}	1188.40	-----	149	576	-416	-691	-119	172	872	1139	0.802	0.195	1.00	Yes	0.572	0.136	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.37**
		U_{32} - U_{33}	871.20	-----	1119	-1323	233	-77	626	-100	384	137	0.736	0.263	1.00	Yes	0.494	0.175	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.64**
		U_{33} - U_{34}	844.46	-814.26	551	356	-190	-1056	101	249	527	304	0.713	0.213	0.93	Yes	0.485	0.139	0.63	Yes	0.814	0.178	1	Yes	0.809	0.149	0.96	Yes	1.00	**7.60**
		U_{34} - U_{35}	379.30	-979.17	464	76	-195	-1173	106	39	384	-12	0.278	0.184	0.47	Yes	0.188	0.125	0.32	Yes	0.850	0.143	1	Yes	0.845	0.143	0.99	Yes	1.00	**5.39**
		U_{35} - U_{36}	122.08	-1263.76	246	-189	-449	-821	93	131	552	112	0.070	0.133	0.21	Yes	0.049	0.089	0.14	Yes	0.863	0.131	1	Yes	0.857	0.087	0.95	Yes	1.00	**4.99**
		U_{36} - U_{37}	-----	-1380.53	-70	-12	-772	-1630	130	-67	456	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.205	1	Yes	0.786	0.145	0.94	Yes	1.00	**4.45**
		U_{37} - U_{38}	-----	-1371.63	118	-175	-1533	-895	21	39	242	61	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.207	1	Yes	0.781	0.137	0.92	Yes	1.00	**4.40**
		U_{38} - U_{39}	-----	-1669.70	195	-329	-706	-1178	92	-62	516	-13	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.129	1	Yes	0.857	0.098	0.96	Yes	1.00	**5.76**
		U_{39} - U_{40}	-----	-1510.87	-275	-454	-1923	-872	-115	-119	219	-215	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.212	1	Yes	0.776	0.159	0.94	Yes	1.00	**4.39**
		U_{40} - U_{41}	-----	-1470.35	-345	-410	-937	-854	-90	-97	-199	-415	-----	-----	-----	-----	-----	-----	-----	-----	0.843	0.149	1	Yes	0.837	0.084	0.93	Yes	1.00	**5.09**
		U_{41} - U_{42}	-----	-1177.58	-216	-192	-1173	-129	-73	103	-158	-380	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.156	1	Yes	0.836	0.119	0.96	Yes	1.00	**5.32**
		U_{42} - U_{43}	-----	-857.13	-228	-57	-854	-43	187	-9	-232	-374	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.161	1	Yes	0.827	0.130	0.96	Yes	1.00	**5.84**
		U_{43} - U_{44}	-----	-614.27	-28	-234	-1352	272	-9	19	-94	-386	-----	-----	-----	-----	-----	-----	-----	-----	0.730	0.262	1	Yes	0.725	0.230	0.96	Yes	1.00	**10.05**
	Structure 3	U_0 - U_1	-----	-657.97	582	-1200	-7	-1208	619	-184	454	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.248	1	Yes	0.740	0.243	0.99	Yes	1.00	**14.34**
		U_1 - U_2	-----	-697.63	-4	-563	-69	-97	437	645	246	511	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.203	1	Yes	0.785	0.113	0.90	Yes	1.00	**6.01**
		U_2 - U_3	-----	-1053.98	22	-667	-91	-125	790	-27	375	-4	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.162	1	Yes	0.825	0.109	0.94	Yes	1.00	**6.07**
		U_3 - U_4	-----	-1431.00	-141	-193	-500	-1085	125	-246	486	331	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.167	1	Yes	0.820	0.120	0.95	Yes	1.00	**6.16**
		U_4 - U_5	-----	-1471.40	-317	-27	-845	-406	-24	-319	758	-163	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.145	1	Yes	0.844	0.093	0.94	Yes	1.00	**5.69**
		U_5 - U_6	-----	-1371.14	-148	-223	-614	-1349	-52	-211	-58	-307	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.198	1	Yes	0.786	0.149	0.94	Yes	1.00	**4.94**
		U_6 - U_7	-----	-1341.83	-315	-92	-1703	-419	-80	-230	38	-198	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.216	1	Yes	0.769	0.188	0.96	Yes	1.00	**4.37**
		U_7 - U_8	-----	-1265.85	-121	-27	-510	-424	-226	-219	0	-669	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.143	1	Yes	0.845	0.070	0.92	Yes	1.00	**5.35**
		U_8 - U_9	-----	-906.43	-102	168	-841	-1	-213	-126	85	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.138	1	Yes	0.850	0.139	0.99	Yes	1.00	**4.82**
		U_9 - U_{10}	207.44	-615.77	-38	246	-895	251	-312	-140	-221	-381	0.225	0.262	0.49	Yes	0.150	0.168	0.32	Yes	0.793	0.199	1	Yes	0.786	0.200	0.99	Yes	1.00	**6.94**
		U_{10} - U_{11}	738.67	-34.96	280	234	-482	240	-356	2	-543	-412	0.801	0.195	1.00	Yes	0.543	0.131	0.68	Yes	0.045	0.120	0.17	Yes	0.045	0.108	0.16	Yes	1.00	**10.34**
		U_{11} - U_{12}	806.70	-----	-152	1131	-842	1652	-334	199	-467	-223	0.661	0.334	1.00	Yes	0.452	0.228	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.42**
		U_{12} - U_{13}	1010.59	-----	1776	-410	646	-45	-288	143	-147	55	0.700	0.298	1.00	Yes	0.488	0.203	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.77**
		U_{13} - U_{14}	877.70	-----	240	398	-28	-309	-174	308	273	497	0.839	0.153	1.00	Yes	0.587	0.105	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.75**
		U_{14} - U_{15}	363.47	-----	1998	-563	147	58	633	-179	132	40	0.417	0.582	1.00	Yes	0.281	0.380	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**27.06**
		U_{15} - U_{16}	452.94	-562.00	357	198	-166	-841	-37	173	337	209	0.519	0.257	0.78	Yes	0.356	0.176	0.54	Yes	0.765	0.228	1	Yes	0.758	0.200	0.96	Yes	1.00	**6.73**
		U_{16} - U_{17}	385.03	-588.62	347	109	-779	-346	19	89	202	-11	0.441	0.219	0.67	Yes	0.303	0.150	0.46	Yes	0.801	0.193	1	Yes	0.794	0.185	0.98	Yes	1.00	**5.69**
		U_{17} - U_{18}	239.74	-661.05	359	-103	-289	-376	-83	248	99	-205	0.275	0.131	0.41	Yes	0.185	0.086	0.28	Yes	0.899	0.096	1	Yes	0.891	0.089	0.99	Yes	1.00	**6.05**
		U_{18} - U_{19}	78.54	-572.77	99	-19	-761	-179	215	55	207	5	0.090	0.217	0.31	Yes	0.062	0.149	0.22	Yes	0.779	0.214	1	Yes	0.772	0.181	0.96	Yes	1.00	**5.14**
		U_{19} - U_{20}	50.12	-615.18	234	-500	-685	69	-8	65	219	-308	0.057	0.215	0.28	Yes	0.039	0.147	0.19	Yes	0.837	0.152	0.99	Yes	0.830	0.163	1.00	Yes	1.00	**10.04**

Moment (Start) AB Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End																				
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
Center Truss - Lower Chord	Structure 1	L_0 - L_1	127.35	-124.16	1056	-1455	-375	289	-457	-1680	50	185	0.195	0.797	1.00	Yes	0.115	0.478	0.60	Yes	0.225	0.560	0.79	Yes	0.224	0.437	0.67	Yes	1.00	**33.68**
		L_1 - L_2	417.51	-----	52	-114	-115	-703	-13	36	-675	284	0.639	0.356	1.00	Yes	0.390	0.233	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.35**
		L_2 - L_3	709.77	-207.81	27	174	-609	-559	0	-17	199	-165	0.817	0.179	1.00	Yes	0.472	0.107	0.58	Yes	0.284	0.183	0.47	Yes	0.281	0.147	0.43	Yes	1.00	**8.14**
		L_3 - L_4	669.25	-319.48	91	351	-380	-707	-15	-8	-350	274	0.770	0.227	1.00	Yes	0.457	0.145	0.61	Yes	0.437	0.202	0.64	Yes	0.432	0.171	0.61	Yes	1.00	**7.21**
		L_4 - L_5	128.83	-510.11	115	460	-835	423	134	-112	-69	-30	0.167	0.245	0.42	Yes	0.100	0.161	0.27	Yes	0.784	0.175	0.96	Yes	0.777	0.221	1.00	Yes	1.00	**5.06**
		L_5 - L_6	-----	-733.88	144	566	-282	197	29	95	197	153	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.135	1	Yes	0.847	0.125	0.98	Yes	1.00	**5.33**
		L_6 - L_7	-----	-1119.09	187	-19	-597	313	138	-46	-103	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.911	0.040	0.96	Yes	0.901	0.094	1.00	Yes	1.00	**7.65**
		L_7 - L_8	-----	-1245.33	-33	583	-98	1454	41	72	106	154	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.193	1	Yes	0.789	0.193	0.99	Yes	1.00	**3.98**
		L_8 - L_9	-----	-1272.66	1418	-112	554	-47	132	83	37	-14	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.183	1	Yes	0.806	0.188	1.00	Yes	1.00	**4.32**
		L_9 - L_{10}	-----	-1116.02	609	-602	-108	104	103	100	276	-23	-----	-----	-----	-----	-----	-----	-----	-----	0.908	0.051	0.96	Yes	0.898	0.096	1.00	Yes	1.00	**12.23**
		L_{10} - L_{11}	-----	-536.88	653	-388	157	-151	110	40	52	18	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.082	0.91	Yes	0.818	0.173	1.00	Yes	1.00	**7.03**
		L_{11} - L_{12}	163.00	-----	2171	-2629	207	-258	-247	-505	-38	60	0.211	0.784	1.00	Yes	0.127	0.515	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**46.64**
		L_{12} - L_{13}	1124.13	-----	111	-79	-296	-466	-26	-41	7	-178	0.887	0.104	1.00	Yes	0.567	0.062	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.27**
		L_{13} - L_{14}	1277.77	-----	341	-1576	91	-1374	-252	81	-326	230	0.751	0.244	1.00	Yes	0.487	0.150	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.76**
		L_{14} - L_{15}	1549.81	-----	-349	-81	-1855	-307	-68	-51	-157	91	0.757	0.235	1.00	Yes	0.492	0.142	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.09**
		L_{15} - L_{16}	1708.07	-----	-184	-390	-962	-1170	-79	10	322	228	0.834	0.164	1.00	Yes	0.536	0.096	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.85**
		L_{16} - L_{17}	1256.64	-----	-392	33	-1224	74	-35	-63	-260	-76	0.795	0.203	1.00	Yes	0.516	0.125	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.48**
		L_{17} - L_{18}	940.07	-----	-165	-65	-712	146	-65	-5	-227	-316	0.819	0.178	1.00	Yes	0.524	0.107	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.82**
		L_{18} - L_{19}	440.70	-----	-228	163	-925	446	-1	-27	-229	211	0.674	0.325	1.00	Yes	0.456	0.203	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.14**
		L_{19} - L_{20}	84.20	-282.02	-93	18	-1639	952	-36	-8	590	132	0.129	0.614	0.75	Yes	0.079	0.410	0.49	Yes	0.512	0.346	0.86	Yes	0.508	0.492	1.00	Yes	1.00	**21.33**
	Structure 2	L_0 - L_1	75.44	-32.56	1228	-3198	-276	323	-440	-1527	11	39	0.092	0.902	1.00	Yes	0.055	0.572	0.63	Yes	0.047	0.625	0.68	Yes	0.047	0.651	0.70	Yes	1.00	**30.50**
		L_1 - L_2	567.72	-----	382	-1154	125	-129	-420	226	82	84	0.690	0.304	1.00	Yes	0.410	0.194	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.91**
		L_2 - L_3	987.31	-----	202	-1030	-158	-802	609	543	266	-83	0.778	0.214	1.00	Yes	0.510	0.130	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.40**
		L_3 - L_4	1390.04	-----	74	-461	-369	-1380	33	116	82	159	0.817	0.174	1.00	Yes	0.550	0.108	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**15.57**
		L_4 - L_5	1845.29	-----	-206	-158	-1045	-1294	15	-13	239	-81	0.860	0.138	1.00	Yes	0.570	0.082	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.01**
		L_5 - L_6	1945.46	-----	-9	-244	-798	-1610	-92	56	-356	178	0.835	0.165	1.00	Yes	0.560	0.101	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.57**
		L_6 - L_7	1961.71	-----	-301	-4	-1691	-1625	55	-33	256	21	0.830	0.164	1.00	Yes	0.552	0.096	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.32**
		L_7 - L_8	1361.37	-82.44	-146	302	-1487	-444	-60	80	-601	-243	0.781	0.213	1.00	Yes	0.513	0.128	0.65	Yes	0.056	0.192	0.25	Yes	0.056	0.164	0.22	Yes	1.00	**5.24**
		L_8 - L_9	1117.87	-349.72	-73	536	-1029	-48	49	-141	196	827	0.782	0.217	1.00	Yes	0.527	0.138	0.67	Yes	0.290	0.150	0.44	Yes	0.288	0.139	0.43	Yes	1.00	**5.84**
		L_9 - L_{10}	772.02	-741.15	-22	704	-1348	205	-42	6	356	-84	0.689	0.258	0.95	Yes	0.401	0.160	0.57	Yes	0.784	0.138	0.93	Yes	0.778	0.216	1.00	Yes	1.00	**7.41**
		L_{10} - L_{11}	93.21	-734.32	38	568	-768	489	127	-47	-211	-142	0.093	0.163	0.26	Yes	0.055	0.102	0.16	Yes	0.868	0.104	0.98	Yes	0.863	0.134	1.00	Yes	1.00	**5.15**
		L_{11} - L_{12}	-----	-999.96	-25	916	-681	1280	16	63	-26	20	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.102	0.93	Yes	0.820	0.174	1.00	Yes	1.00	**4.86**
		L_{12} - L_{13}	-----	-1450.20	177	-780	-957	-372	72	-52	29	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.119	1	Yes	0.867	0.095	0.97	Yes	1.00	**8.16**
		L_{13} - L_{14}	-----	-1459.40	-488	1434	-1182	2974	-78	-111	93	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.174	0.92	Yes	0.734	0.260	1.00	Yes	1.00	**3.60**
		L_{14} - L_{15}	-----	-1475.22	2884	-1116	1394	-536	-80	-75	-127	-109	-----	-----	-----	-----	-----	-----	-----	-----	0.749	0.169	0.92	Yes	0.742	0.252	1.00	Yes	1.00	**3.38**
		L_{15} - L_{16}	-----	-1482.61	-424	-149	-1098	-87	18	87	-2	3	-----	-----	-----	-----	-----	-----	-----	-----	0.894	0.103	1	Yes	0.887	0.109	1.00	Yes	1.00	**4.82**
		L_{16} - L_{17}	-----	-1125.26	1384	-271	612	-64	40	-8	22	-4	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.131	0.96	Yes	0.820	0.171	1.00	Yes	1.00	**4.35**
		L_{17} - L_{18}	-----	-823.86	786	-512	354	-47	11	0	4	28	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.075	0.95	Yes	0.865	0.126	1.00	Yes	1.00	**5.37**
		L_{18} - L_{19}	-----	-660.85	595	155	205	-333	-47	-69	116	-55	-----	-----	-----	-----	-----	-----	-----	-----	0.886	0.096	0.99	Yes	0.881	0.115	1.00	Yes	1.00	**5.40**
		L_{19} - L_{20}	284.21	-676.29	502	281	119	-482	-26	-42	-178	137	0.322	0.124	0.45	Yes	0.190	0.079	0.27	Yes	0.907	0.085	1	Yes	0.901	0.097	1.00	Yes	1.00	**7.00**
		L_{20} - L_{21}	1053.68	-808.84	589	256	-534	-890	15	-64	8	-204	0.840	0.152	1.00	Yes	0.551	0.091	0.65	Yes	0.764	0.126	0.9	Yes	0.759	0.130	0.89	Yes	1.00	**9.46**
		L_{21} - L_{22}	715.13	-880.27	470	356	-666	-1193	-32	-105	166	18	0.570	0.192	0.77	Yes	0.381	0.120	0.51	Yes	0.832	0.157	0.99	Yes	0.826	0.174	1.00	Yes	1.00	**11.03**
		L_{22} - L_{23}	888.28	-448.72	113	262	-1875	-315	59	-61	-98	65	0.708	0.284	1.00	Yes	0.474	0.177	0.66	Yes	0.424	0.233	0.66	Yes	0.421	0.274	0.70	Yes	1.00	**6.40**
		L_{23} - L_{24}	997.97	-701.17	212	461	-1092	-612	4	48	382	278	0.796	0.201	1.00	Yes	0.522	0.121	0.65	Yes	0.662	0.192	0.86	Yes	0.658	0.159	0.82	Yes	1.00	**8.91**
		L_{24} - L_{25}	435.54	-624.16	244	466	-846	217	97	-98	-167	36	0.493	0.189	0.69	Yes	0.292	0.120	0.42	Yes	0.837	0.122	0.96	Yes	0.832	0.163	1.00	Yes	1.00	**7.09**
		L_{25} - L_{26}	-----	-663.64	156	565	-565	390	11	72	3	71	-----	-----	-----	-----	-----	-----	-----	-----	0.890	0.086	0.98	Yes	0.884	0.109	1.00	Yes	1.00	**6.31**
		L_{26} - L_{27}	-----	-817.85	229	411	-704	855	131	-8	86	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.076	0.95	Yes	0.859	0.137	1.00	Yes	1.00	**6.23**
		L_{27} - L_{28}	-----	-1142.26	170	1106	-777	1353	126	215	16	-61	-----	-----	-----	-----	-----	-----	-----	-----	0.839	0.126	0.97	Yes	0.832	0.167	1.00	Yes	1.00	**9.89**
		L_{28} - L_{29}	-----	-1469.62	27	-817	-398	-977	187	98	-48	-89	-----	-----	-----	-----	-----	-----	-----	-----	0.886	0.113	1	Yes	0.879	0.097	0.98	Yes	1.00	**5.07**
		L_{29} - L_{30}	-----	-1468.71	-484	1306	-1113	2903	21	13	15	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.164	0.91	Yes	0.739	0.254	1.00	Yes	1.00	**3.61**
		L_{30} - L_{31}	-----	-1466.78	2989	-1104	1334	-471	-42	-44	-6	-18	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.173	0.92	Yes	0.738	0.261	1.00	Yes	1.00	**3.65**
		L_{31} - L_{32}	-----	-1452.57	-295	-163	-965	-297	5	15	156	166	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.114	1	Yes	0.869	0.096	0.97	Yes	1.00	**5.31**
		L_{32} - L_{33}	-----	-997.81	1276	-585	529	-148	43	12	45	27	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.112	0.94	Yes	0.818	0.174	1.00	Yes	1.00	**4.80**
		L_{33} - L_{34}	-----	-766.11	543	130	361	-173	0	-11	12	82	-----	-----	-----	-----	-----	-----	-----	-----	0.906	0.073	0.98	Yes	0.900	0.095	1.00	Yes	1.00	**5.26**
		L_{34} - L_{35}	792.45	-783.41	774	22	27	-1064	4	-52	180	-141	0.707	0.192	0.90	Yes	0.412	0.119	0.54	Yes	0.828	0.104	0.94	Yes	0.823	0.170	1.00	Yes	1.00	**7.41**
		L_{35} - L_{36}	1172.02	-464.80	600	0	94	-996	-43	-8	-443	248	0.820	0.176	1.00	Yes	0.552	0.111	0.67	Yes	0.385	0.089	0.48	Yes	0.382	0.134	0.52	Yes	1.00	**6.64**
		L_{36} - L_{37}	1398.75	-152.36	407	-9	-432	-1489	14	-17	303	34	0.802	0.189	1.00	Yes	0.527	0.112	0.64	Yes	0.104	0.171	0.28	Yes	0.103	0.164	0.27	Yes	1.00	**5.71**
		L_{37} - L_{38}	1896.92	-----	163	-338	-1799	-1528	-57	36	-507	270	0.803	0.189	1.00	Yes	0.534	0.112	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.98**
		L_{38} - L_{39}	1845.08	-----	-290	-53	-1687	-1233	-5	-67	335	840	0.792	0.202	1.00	Yes	0.531	0.126	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.36**
		L_{39} - L_{40}	1750.94	-----	-180	-365	-1682	-704	-70	-8	362	-67	0.816	0.183	1.00	Yes	0.540	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.22**
		L_{40} - L_{41}	1410.10	-----	-344	4	-1210	-84	-1	3	-286	-145	0.829	0.164	1.00	Yes	0.558	0.102	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.57**
		L_{41} - L_{42}	1038.13	-----	-122	-123	-1038	114	47	103	-257	-293	0.818	0.181	1.00	Yes	0.537	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.82**
		L_{42} - L_{43}	577.89	-----	-211	134	-1222	395	76	26	-165	286	0.702	0.296	1.00	Yes	0.417	0.189	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.19**
		L_{43} - L_{44}	-----	-167.84	241	-185	-3697	1330	-89	-26	1343	392	-----	-----	-----	-----	-----	-----	-----	-----	0.241	0.652	0.9	Yes	0.240	0.752	1.00	Yes	1.00	**37.02**
	Structure 3	L_0 - L_1	22.84	-150.74	1415	-2352	-92	53	-266	-1204	3	13	0.035	0.956	1.00	Yes	0.021	0.634	0.66	Yes	0.274	0.570	0.85	Yes	0.271	0.706	0.98	Yes	1.00	**33.52**
		L_1 - L_2	451.81	-----	386	-805	146	-165	-291	298	36	59	0.691	0.303	1.00	Yes	0.468	0.191	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.04**
		L_2 - L_3	909.08	-----	180	-776	-46	-142	449	316	52	57	0.792	0.207	1.00	Yes	0.507	0.125	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.64**
		L_3 - L_4	1283.48	-----	62	-382	-14	-1125	27	114	-205	218	0.812	0.185	1.00	Yes	0.527	0.114	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.87**
		L_4 - L_5	1760.20	-----	-269	-126	-1068	-791	28	14	88	-136	0.860	0.138	1.00	Yes	0.552	0.081	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.45**
		L_5 - L_6	1587.14	-----	-35	-311	-346	-1623	-62	137	-226	376	0.775	0.222	1.00	Yes	0.504	0.135	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.43**
		L_6 - L_7	1279.76	-----	-349	208	-1662	219	3	-33	-49	132	0.753	0.240	1.00	Yes	0.488	0.146	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.86**
		L_7 - L_8	1087.15	-----	-78	76	-548	-342	-30	52	337	329	0.858	0.137	1.00	Yes	0.549	0.083	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.86**
		L_8 - L_9	572.01	-183.30	-162	352	-854	332	60	-104	-144	-21	0.741	0.251	1.00	Yes	0.444	0.165	0.61	Yes	0.282	0.118	0.4	Yes	0.279	0.226	0.51	Yes	1.00	**7.04**
		L_9 - L_{10}	-----	-539.91	-22	496	-658	353	12	78	-41	3	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.080	0.92	Yes	0.823	0.174	1.00	Yes	1.00	**8.24**
		L_{10} - L_{11}	-----	-1086.68	121	22	-778	642	54	-276	71	-143	-----	-----	-----	-----	-----	-----	-----	-----	0.884	0.051	0.94	Yes	0.875	0.122	1.00	Yes	1.00	**12.67**
		L_{11} - L_{12}	-----	-1253.43	-33	1061	-184	1391	-152	-69	-95	-286	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.188	1	Yes	0.794	0.184	0.98	Yes	1.00	**6.98**
		L_{12} - L_{13}	-----	-1242.52	1432	-98	557	-34	-213	-203	-129	-138	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.197	1	Yes	0.787	0.190	0.98	Yes	1.00	**4.01**
		L_{13} - L_{14}	-----	-1167.45	271	-354	-94	194	-163	-86	-42	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.950	0.038	0.99	Yes	0.940	0.056	1.00	Yes	1.00	**7.78**
		L_{14} - L_{15}	-----	-729.41	681	-60	210	-213	23	-24	-32	-140	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.133	0.99	Yes	0.842	0.151	1.00	Yes	1.00	**5.35**
		L_{15} - L_{16}	-----	-374.07	1219	-1617	253	-33	-144	-8	-28	46	-----	-----	-----	-----	-----	-----	-----	-----	0.575	0.205	0.79	Yes	0.570	0.428	1.00	Yes	1.00	**14.09**
		L_{16} - L_{17}	664.29	-263.35	369	37	-906	-342	55	-80	-11	4	0.764	0.232	1.00	Yes	0.454	0.151	0.61	Yes	0.360	0.234	0.6	Yes	0.356	0.219	0.58	Yes	1.00	**6.75**
		L_{17} - L_{18}	694.43	-127.16	118	-44	-618	-710	42	102	177	113	0.799	0.200	1.00	Yes	0.462	0.120	0.59	Yes	0.174	0.219	0.4	Yes	0.172	0.171	0.35	Yes	1.00	**7.07**
		L_{18} - L_{19}	452.34	-45.23	47	15	-844	65	52	-73	-119	239	0.692	0.305	1.00	Yes	0.422	0.204	0.63	Yes	0.082	0.182	0.27	Yes	0.081	0.253	0.34	Yes	1.00	**7.41**
		L_{19} - L_{20}	-----	-223.44	307	-356	-1977	1680	-236	-64	1341	365	-----	-----	-----	-----	-----	-----	-----	-----	0.406	0.566	0.98	Yes	0.402	0.593	1.00	Yes	1.00	**44.18**

Moment (Start) AB Operating

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.299	1	Yes	0.656	0.255	0.92	Yes	1.00	**3.88**
Center Truss - Verticals	Structure 1	$U_0 - L_0$			-----	-310.19	-1	21	-150	200	-72	-23	-719	-231	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.299	1	Yes	0.656	0.255	0.92	Yes	1.00	**3.88**
		$U_1 - L_1$			74.69	-335.75	56	-52	-218	226	107	41	-118	-49	0.134	0.322	0.46	Yes	0.074	0.177	0.26	Yes	0.734	0.114	0.85	Yes	0.710	0.288	1.00	Yes	1.00	**7.29**
		$U_2 - L_2$			133.77	-311.70	122	-135	-215	266	-198	-73	63	102	0.241	0.398	0.64	Yes	0.132	0.219	0.36	Yes	0.681	0.162	0.85	Yes	0.660	0.340	1.00	Yes	1.00	**9.76**
		$U_3 - L_3$			218.76	-268.11	184	-215	-309	331	-236	-221	11	255	0.393	0.497	0.90	Yes	0.216	0.274	0.49	Yes	0.588	0.172	0.76	Yes	0.567	0.424	1.00	Yes	1.00	**13.21**
		$U_4 - L_4$			-----	-372.72	158	-162	54	-55	-94	-42	-160	-74	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.097	0.92	Yes	0.789	0.206	1.00	Yes	1.00	**4.85**
		$U_5 - L_5$			-----	-423.03	247	-260	59	-66	-95	-30	-150	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.106	0.88	Yes	0.730	0.264	1.00	Yes	1.00	**3.88**
		$U_6 - L_6$			-----	-537.97	249	-257	72	-72	-28	72	-135	0	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.085	0.9	Yes	0.771	0.224	1.00	Yes	1.00	**4.59**
		$U_7 - L_7$			-----	-433.52	301	-326	119	-132	-2	99	-130	46	-----	-----	-----	-----	-----	-----	-----	-----	0.725	0.124	0.85	Yes	0.669	0.321	1.00	Yes	1.00	**3.04**
		$U_8 - L_8$			-----	-1196.66	352	-432	-289	342	628	148	-1101	-381	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.129	1	Yes	0.830	0.080	0.92	Yes	1.00	**7.26**
		$U_9 - L_9$			-----	-648.15	-176	203	-406	480	-245	-171	-107	-350	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.156	0.93	Yes	0.732	0.267	1.00	Yes	1.00	**4.30**
		$U_{10} - L_{10}$			-----	-819.14	-115	115	-360	348	-203	-146	-318	-256	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.114	0.97	Yes	0.808	0.187	1.00	Yes	1.00	**6.21**
		$U_{11} - L_{11}$			-----	-667.28	-118	161	-371	462	-140	-32	-157	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.091	0.9	Yes	0.777	0.214	1.00	Yes	1.00	**5.46**
		$U_{12} - L_{12}$			-----	-533.21	-103	102	-297	306	-125	5	-100	62	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.089	0.86	Yes	0.732	0.261	1.00	Yes	1.00	**4.97**
		$U_{13} - L_{13}$			-----	-367.50	-64	78	-237	255	-106	45	-81	107	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.101	0.85	Yes	0.704	0.292	1.00	Yes	1.00	**3.81**
		$U_{14} - L_{14}$			-----	-248.67	-34	40	-124	144	-1342	-225	-1602	-122	-----	-----	-----	-----	-----	-----	-----	-----	0.555	0.443	1	Yes	0.526	0.184	0.72	Yes	1.00	**5.49**
		$U_{15} - L_{15}$			54.56	-297.68	278	-286	-45	44	-94	-227	-156	-89	0.098	0.431	0.53	Yes	0.054	0.237	0.30	Yes	0.667	0.181	0.85	Yes	0.630	0.365	1.00	Yes	1.00	**7.79**
		$U_{16} - L_{16}$			1.33	-323.75	234	-246	10	-14	-94	-218	-165	-111	0.002	0.377	0.38	Yes	0.001	0.208	0.21	Yes	0.730	0.165	0.9	Yes	0.685	0.314	1.00	Yes	1.00	**6.45**
		$U_{17} - L_{17}$			-----	-439.38	219	-237	43	-55	43	-85	-170	-99	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.132	0.96	Yes	0.758	0.241	1.00	Yes	1.00	**4.56**
		$U_{18} - L_{18}$			-----	-536.75	425	-443	116	-121	65	-9	-157	-63	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.094	0.88	Yes	0.747	0.251	1.00	Yes	1.00	**5.36**
		$U_{19} - L_{19}$			-----	-651.58	484	-509	130	-143	364	148	-69	3	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.149	0.97	Yes	0.758	0.236	1.00	Yes	1.00	**6.06**
		$U_{20} - L_{20}$			-----	-598.15	404	-503	163	-209	544	71	17	2	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.200	1	Yes	0.696	0.233	0.93	Yes	1.00	**4.50**
	Structure 2	$U_0 - L_0$			-----	-648.53	-94	155	-403	522	-274	-46	-787	-134	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.216	1	Yes	0.695	0.221	0.92	Yes	1.00	**4.07**
		$U_1 - L_1$			-----	-700.26	-87	94	-469	510	58	-71	-864	-285	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.196	1	Yes	0.750	0.216	0.97	Yes	1.00	**5.48**
		$U_2 - L_2$			-----	-590.52	-49	57	-444	470	132	52	-697	-195	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.175	0.97	Yes	0.752	0.241	1.00	Yes	1.00	**5.67**
		$U_3 - L_3$			-----	-487.22	-24	29	-215	237	41	146	-508	-166	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.167	1	Yes	0.764	0.216	0.98	Yes	1.00	**5.26**
		$U_4 - L_4$			29.54	-340.91	17	-9	-204	212	-42	101	40	238	0.053	0.340	0.40	Yes	0.029	0.187	0.22	Yes	0.773	0.126	0.9	Yes	0.721	0.271	1.00	Yes	1.00	**6.01**
		$U_5 - L_5$			111.80	-337.72	80	-77	-191	219	-97	0	5	245	0.201	0.351	0.56	Yes	0.111	0.193	0.31	Yes	0.763	0.128	0.9	Yes	0.715	0.280	1.00	Yes	1.00	**8.26**
		$U_6 - L_6$			244.61	-289.54	154	-172	-288	298	-129	-78	56	339	0.440	0.479	0.92	Yes	0.242	0.263	0.51	Yes	0.652	0.168	0.83	Yes	0.613	0.381	1.00	Yes	1.00	**14.89**
		$U_7 - L_7$			-----	-229.48	318	-370	50	-58	-1241	-338	-128	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.518	0.478	1	Yes	0.486	0.473	0.96	Yes	1.00	**21.18**
		$U_8 - L_8$			-----	-458.78	371	-383	113	-125	-642	-477	-166	-113	-----	-----	-----	-----	-----	-----	-----	-----	0.665	0.224	0.89	Yes	0.661	0.335	1.00	Yes	1.00	**5.63**
		$U_9 - L_9$			-----	-696.23	565	-591	202	-207	-980	-730	-220	-118	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.208	0.99	Yes	0.746	0.251	1.00	Yes	1.00	**7.26**
		$U_{10} - L_{10}$			-----	-785.22	564	-588	184	-194	-44	-97	-162	-77	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.097	0.88	Yes	0.734	0.260	1.00	Yes	1.00	**6.30**
		$U_{11} - L_{11}$			-----	-845.71	435	-467	196	-196	-81	34	-122	-13	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.078	0.93	Yes	0.791	0.206	1.00	Yes	1.00	**4.46**
		$U_{12} - L_{12}$			-----	-893.83	517	-494	176	-153	49	120	-58	59	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.087	0.95	Yes	0.775	0.222	1.00	Yes	1.00	**4.68**
		$U_{13} - L_{13}$			-----	-737.57	600	-602	264	-273	-22	99	-131	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.118	0.95	Yes	0.711	0.288	1.00	Yes	1.00	**4.25**
		$U_{14} - L_{14}$			-----	-1196.53	621	-595	-391	359	696	390	-827	-289	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.115	1	Yes	0.793	0.110	0.91	Yes	1.00	**7.87**
		$U_{15} - L_{15}$			-----	-704.05	-136	151	-656	658	-33	15	-183	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.156	0.95	Yes	0.679	0.315	1.00	Yes	1.00	**5.67**
		$U_{16} - L_{16}$			-----	-735.40	-83	49	-490	450	-134	-53	-292	-207	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.116	0.97	Yes	0.788	0.208	1.00	Yes	1.00	**4.82**
		$U_{17} - L_{17}$			-----	-640.59	-138	125	-540	531	-85	-42	-160	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.092	0.89	Yes	0.746	0.250	1.00	Yes	1.00	**4.15**
		$U_{18} - L_{18}$			-----	-576.09	-130	116	-391	418	-77	-39	-1157	-186	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.228	1	Yes	0.734	0.214	0.95	Yes	1.00	**3.92**
		$U_{19} - L_{19}$			-----	-482.21	-86	77	-284	288	-90	-43	106	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.725	0.093	0.82	Yes	0.720	0.277	1.00	Yes	1.00	**5.78**
		$U_{20} - L_{20}$			-----	-384.84	-55	54	-208	222	-124	-96	-149	76	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.103	0.9	Yes	0.737	0.253	1.00	Yes	1.00	**5.58**
	Structure 3	$U_0 - L_0$			-----	-316.99	-27	37	-246	257	-441	-43	-132	97	-----	-----	-----	-----	-----	-----	-----	-----	0.716	0.202	0.92	Yes	0.671	0.328	1.00	Yes	1.00	**5.88**
		$U_1 - L_1$			-----	-225.27	173	-197	-124	146	-1471	-475	243	97	-----	-----	-----	-----	-----	-----	-----	-----	0.507	0.485	1	Yes	0.477	0.252	0.73	Yes	1.00	**21.62**
		$U_2 - L_2$			-----	-306.65	262	-268	24	-25	-97	-149	-91	33	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.145	0.84	Yes	0.649	0.343	1.00	Yes	1.00	**6.23**
		$U_3 - L_3$			-----	-379.28	225	-238	44	-46	-84	-133	-131	24	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.111	0.89	Yes	0.727	0.271	1.00	Yes	1.00	**5.95**
		$U_4 - L_4$			-----	-471.74	307	-304	81	-78	80	-27	-121	33	-----	-----	-----	-----	-----	-----	-----	-----	0.710	0.088	0.8	Yes	0.704	0.295	1.00	Yes	1.00	**5.13**
		$U_5 - L_5$			-----	-600.92	403	-453	135	-134	-64	12	-153	22	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.085	0.89	Yes	0.766	0.232	1.00	Yes	1.00	**3.93**
		$U_6 - L_6$			-----	-628.76	567	-567	157	-155	-98	55	-148	42	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.082	0.86	Yes	0.732	0.263	1.00	Yes	1.00	**4.06**
		$U_7 - L_7$			-----	-723.41	521	-498	128	-107	4	132	-121	38	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.075	0.92	Yes	0.775	0.221	1.00	Yes	1.00	**4.62**
		$U_8 - L_8$			-----	-700.28	678	-676	222	-242	112	118	-198	-42	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.143	0.93	Yes	0.675	0.325	1.00	Yes	1.00	**4.88**
		$U_9 - L_9$			-----	-1185.88	424	-429	-456	402	556	202	-805	-374	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.127	1	Yes	0.786	0.081	0.87	Yes	1.00	**6.96**
		$U_{10} - L_{10}$			-----	-739.18	-187	189	-582	582	-113	-43	-194	-140	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.147	0.98	Yes	0.713	0.279	1.00	Yes	1.00	**4.70**
		$U_{11} - L_{11}$			-----	-902.11	-123	89	-483	446	-183	-107	-294	-195	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.132	1	Yes	0.782	0.207	0.99	Yes	1.00	**5.08**
		$U_{12} - L_{12}$			-----	-776.89	-162	158	-398	409	-103	-19	-1176	-204	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.217	1	Yes	0.726	0.181	0.91	Yes	1.00	**4.57**
		$U_{13} - L_{13}$			-----	-814.32	-156	162	-504	521	-102	19	143	-158	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.079	0.89	Yes	0.761	0.230	1.00	Yes	1.00	**7.74**
		$U_{14} - L_{14}$			-----	-710.57	-180	186	-514	557	-105	35	48	293	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.084	0.88	Yes	0.762	0.236	1.00	Yes	1.00	**7.42**
		$U_{15} - L_{15}$			-----	-473.20	-103	116	-343	360	-103	47	-52	193	-----	-----	-----	-----	-----	-----	-----	-----	0.686	0.101	0.79	Yes	0.682	0.314	1.00	Yes	1.00	**5.78**
		$U_{16} - L_{16}$			-----	-285.60	-57	68	-114	135	-1222	-48	-149	-6	-----	-----	-----	-----	-----	-----	-----	-----	0.645	0.354	1	Yes	0.604	0.172	0.78	Yes	1.00	**5.53**
		$U_{17} - L_{17}$			219.55	-225.47	256	-256	-153	168	-934	-607	-117	-29	0.395	0.598	1.00	Yes	0.217	0.329	0.55	Yes	0.507	0.400	0.91	Yes	0.477	0.327	0.81	Yes	1.00	**11.69**
		$U_{18} - L_{18}$			136.97	-301.19	239	-283	-134	147	-282	-182	-108	-40	0.246	0.443	0.69	Yes	0.135	0.244	0.38	Yes	0.658	0.176	0.84	Yes	0.637	0.362	1.00	Yes	1.00	**9.62**
		$U_{19} - L_{19}$			44.47	-320.83	243	-246	-55	41	147	52	-169	-94	0.080	0.363	0.45	Yes	0.044	0.200	0.25	Yes	0.701	0.133	0.84	Yes	0.679	0.314	1.00	Yes	1.00	**5.72**
		$U_{20} - L_{20}$			-----	-333.00	162	-229	37	-37	343	110	-224	-72	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.205	0.95	Yes	0.705	0.293	1.00	Yes	1.00	**3.74**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Diagonals	Structure 1	$U_0 - L_1$	573.73	-111.56	20	-18	-116	66	-40	-2	-416	-198	0.753	0.240	1.00	Yes	0.455	0.132	0.59	Yes	0.191	0.176	0.37	Yes	0.172	0.135	0.31	Yes	1.00	**7.98**
		$U_1 - L_2$	430.90	-150.12	30	-24	-100	26	-89	-36	-321	-223	0.775	0.221	1.00	Yes	0.426	0.122	0.55	Yes	0.344	0.204	0.55	Yes	0.318	0.128	0.45	Yes	1.00	**8.53**
		$U_2 - L_3$	393.19	-271.57	59	-26	-113	17	147	109	-384	-493	0.707	0.287	1.00	Yes	0.389	0.158	0.55	Yes	0.625	0.324	0.95	Yes	0.575	0.145	0.72	Yes	1.00	**11.27**
		$U_3 - L_4$	57.38	-307.03	54	-11	-85	-119	96	255	-460	-384	0.103	0.285	0.39	Yes	0.057	0.157	0.22	Yes	0.702	0.289	1	Yes	0.650	0.152	0.81	Yes	1.00	**9.53**
		$U_4 - L_4$	554.39	-----	-5	61	-108	0	310	227	-94	-157	0.813	0.182	1.00	Yes	0.447	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.24**
		$U_5 - L_5$	558.03	-----	-17	157	-207	194	491	384	-1184	-110	0.660	0.332	1.00	Yes	0.363	0.183	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.41**
		$U_7 - L_6$	646.96	-----	-78	85	-280	260	296	170	370	-24	0.765	0.227	1.00	Yes	0.421	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.27**
		$U_6 - L_7$	618.71	-----	22	179	-95	302	529	264	78	152	0.731	0.268	1.00	Yes	0.402	0.148	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.88**
		$U_8 - L_9$	933.55	-----	80	229	-82	374	660	329	245	368	0.746	0.251	1.00	Yes	0.462	0.141	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.74**
		$U_9 - L_{10}$	1013.04	-----	-75	124	-318	263	112	138	168	316	0.810	0.182	1.00	Yes	0.502	0.102	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.37**
		$U_{10} - L_{11}$	1015.53	-----	-36	145	-277	191	33	30	-70	-11	0.858	0.137	1.00	Yes	0.531	0.076	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.75**
		$U_{11} - L_{12}$	815.42	-----	-60	81	-274	114	-101	-72	-406	-411	0.807	0.189	1.00	Yes	0.444	0.104	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.88**
		$U_{12} - L_{13}$	622.51	-----	-72	51	-192	167	-229	-195	-357	-330	0.759	0.237	1.00	Yes	0.477	0.134	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.74**
		$U_{13} - L_{14}$	426.56	-----	-27	10	-104	25	-210	-207	-307	-330	0.767	0.228	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.29**
		$U_{15} - L_{14}$	344.35	-166.87	31	-47	-159	-63	-3	-71	-594	-585	0.619	0.376	1.00	Yes	0.341	0.207	0.55	Yes	0.391	0.413	0.81	Yes	0.353	0.204	0.56	Yes	1.00	**11.59**
		$U_{16} - L_{15}$	403.19	-37.28	-5	-11	-134	92	-41	-82	-354	-352	0.725	0.274	1.00	Yes	0.399	0.151	0.55	Yes	0.088	0.189	0.28	Yes	0.079	0.172	0.26	Yes	1.00	**6.99**
		$U_{17} - L_{16}$	490.49	-----	-25	6	-144	83	-23	-94	-174	-551	0.719	0.274	1.00	Yes	0.396	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.68**
		$U_{18} - L_{17}$	637.97	-----	-94	56	-340	262	4	-43	-257	-225	0.754	0.239	1.00	Yes	0.415	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.69**
		$U_{19} - L_{18}$	695.97	-----	-100	64	-351	258	38	0	-367	-141	0.754	0.240	1.00	Yes	0.415	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.93**
		$U_{20} - L_{19}$	681.12	-----	-125	103	-363	312	0	28	-457	-80	0.738	0.261	1.00	Yes	0.406	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.70**
	Structure 2	$U_0 - L_1$	751.56	-----	-47	57	-380	367	-126	61	-495	-156	0.744	0.250	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.47**
		$U_1 - L_2$	738.65	-----	-66	41	-370	285	60	20	-628	-254	0.731	0.266	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.56**
		$U_2 - L_3$	607.35	-----	-38	27	-336	255	-63	-185	-467	-182	0.718	0.275	1.00	Yes	0.395	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.53**
		$U_3 - L_4$	554.78	-----	-12	-1	-181	118	-237	-222	-431	-200	0.740	0.256	1.00	Yes	0.407	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.75**
		$U_4 - L_5$	392.28	-76.98	21	-24	-132	88	-210	-149	-429	-398	0.706	0.293	1.00	Yes	0.388	0.161	0.55	Yes	0.190	0.226	0.42	Yes	0.163	0.169	0.34	Yes	1.00	**6.81**
		$U_5 - L_6$	363.12	-196.66	61	-59	-128	62	-102	-21	-608	-460	0.653	0.340	1.00	Yes	0.359	0.187	0.55	Yes	0.464	0.349	0.82	Yes	0.416	0.164	0.59	Yes	1.00	**9.62**
		$U_6 - L_7$	51.09	-275.94	55	-59	-85	-42	-79	16	-361	-967	0.083	0.349	0.44	Yes	0.046	0.192	0.24	Yes	0.591	0.404	1	Yes	0.529	0.097	0.63	Yes	1.00	**8.86**
		$U_8 - L_7$	584.68	-----	-58	47	-218	108	-26	-113	-287	-264	0.746	0.253	1.00	Yes	0.469	0.143	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.43**
		$U_8 - L_8$	692.80	-----	-118	142	-335	236	243	116	-283	-432	0.750	0.242	1.00	Yes	0.413	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.51**
		$U_{10} - L_9$	772.73	-----	-92	138	-322	198	285	189	-34	-560	0.764	0.233	1.00	Yes	0.420	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.89**
		$U_{11} - L_{10}$	855.89	-----	-100	165	-356	291	461	317	-29	-76	0.780	0.214	1.00	Yes	0.429	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.20**
		$U_{12} - L_{11}$	879.52	-----	-121	174	-348	351	313	203	256	162	0.801	0.192	1.00	Yes	0.441	0.106	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.04**
		$U_{13} - L_{12}$	750.17	-----	-180	174	-426	389	350	182	347	202	0.742	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.66**
		$U_{14} - L_{13}$	729.60	-----	-19	192	-266	425	510	166	2	135	0.722	0.273	1.00	Yes	0.397	0.150	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.29**
		$U_{14} - L_{15}$	629.21	-----	60	73	-209	377	26	-25	99	181	0.744	0.247	1.00	Yes	0.409	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.29**
		$U_{15} - L_{16}$	632.38	-----	-67	72	-379	353	8	34	195	173	0.748	0.250	1.00	Yes	0.411	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.60**
		$U_{16} - L_{17}$	723.37	-----	-53	105	-323	381	-6	14	98	77	0.783	0.211	1.00	Yes	0.431	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.39**
		$U_{17} - L_{18}$	691.30	-----	-53	104	-310	306	-27	6	-1	-5	0.817	0.180	1.00	Yes	0.450	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.29**
		$U_{18} - L_{19}$	566.25	-----	-28	102	-268	270	-18	6	-968	-67	0.669	0.328	1.00	Yes	0.368	0.181	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.47**
		$U_{19} - L_{20}$	577.69	-----	-15	68	-211	182	-1	57	-343	-306	0.737	0.259	1.00	Yes	0.405	0.146	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.83**
		$U_{20} - L_{21}$	419.28	-----	-16	35	-120	106	19	31	-319	-262	0.754	0.245	1.00	Yes	0.415	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.45**
		$U_{21} - L_{22}$	370.29	-----	0	24	-149	6	34	135	-465	-417	0.666	0.325	1.00	Yes	0.366	0.179	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.34**
		$U_{23} - L_{22}$	375.67	-7.93	11	15	-160	5	255	243	-315	-394	0.676	0.319	1.00	Yes	0.372	0.175	0.55	Yes	0.019	0.224	0.25	Yes	0.017	0.205	0.23	Yes	1.00	**9.19**
		$U_{24} - L_{23}$	428.53	-----	-8	26	-123	104	229	141	-168	-204	0.771	0.223	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.96**
		$U_{25} - L_{24}$	552.06	-----	-14	57	-201	147	251	163	-47	-565	0.704	0.295	1.00	Yes	0.387	0.168	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.82**
		$U_{26} - L_{25}$	656.29	-----	-29	102	-288	262	285	196	-12	-90	0.776	0.215	1.00	Yes	0.427	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.88**
		$U_{27} - L_{26}$	660.29	-----	-64	108	-292	286	264	160	230	102	0.781	0.213	1.00	Yes	0.429	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.88**
		$U_{28} - L_{27}$	699.90	-----	-78	125	-316	369	262	179	271	177	0.758	0.234	1.00	Yes	0.417	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.01**
		$U_{29} - L_{28}$	617.64	-----	-116	114	-362	332	304	143	335	-84	0.730	0.266	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		$U_{30} - L_{29}$	604.18	-----	22	132	-196	348	460	111	7	146	0.714	0.280	1.00	Yes	0.393	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.86**
		$U_{30} - L_{31}$	765.29	-----	24	127	-285	470	126	32	15	143	0.757	0.239	1.00	Yes	0.416	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.13**
		$U_{31} - L_{32}$	770.75	-----	-122	124	-449	404	53	61	179	145	0.763	0.235	1.00	Yes	0.419	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.52**
		$U_{32} - L_{33}$	914.35	-----	-80	141	-358	363	8	28	26	32	0.833	0.158	1.00	Yes	0.458	0.087	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		$U_{33} - L_{34}$	872.07	-----	-66	149	-363	268	6	39	-343	-175	0.794	0.201	1.00	Yes	0.437	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.47**
		$U_{34} - L_{35}$	772.70	-----	-70	144	-335	203	-5	19	-428	-472	0.764	0.226	1.00	Yes	0.420	0.124	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.79**
		$U_{35} - L_{36}$	678.16	-----	-114	144	-333	235	-61	-15	-546	-442	0.735	0.260	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.92**
		$U_{36} - L_{37}$	520.04	-----	-59	55	-190	105	-215	-206	-332	-788	0.663	0.331	1.00	Yes	0.417	0.190	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.44**
		$U_{38} - L_{37}$	140.09	-356.50	79	-69	-131	-35	100	102	-378	-330	0.228	0.248	0.48	Yes	0.125	0.136	0.27	Yes	0.770	0.221	1	Yes	0.683	0.149	0.84	Yes	1.00	**12.02**
		$U_{39} - L_{38}$	385.85	-223.74	68	-65	-125	63	77	7	-254	-475	0.694	0.297	1.00	Yes	0.382	0.163	0.55	Yes	0.533	0.229	0.77	Yes	0.473	0.160	0.64	Yes	1.00	**9.17**
		$U_{40} - L_{39}$	367.33	-84.41	19	-27	-126	69	27	-13	-50	-595	0.661	0.333	1.00	Yes	0.363	0.183	0.55	Yes	0.202	0.221	0.43	Yes	0.179	0.161	0.34	Yes	1.00	**5.48**
		$U_{41} - L_{40}$	585.45	-----	-13	-5	-190	140	27	-5	-170	-187	0.780	0.213	1.00	Yes	0.429	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.40**
		$U_{42} - L_{41}$	649.75	-----	-51	31	-345	269	-5	2	-122	-150	0.768	0.223	1.00	Yes	0.422	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.49**
		$U_{43} - L_{42}$	777.41	-----	-71	44	-391	312	-18	-44	-327	-88	0.769	0.230	1.00	Yes	0.423	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.10**
		$U_{44} - L_{43}$	767.78	-----	-124	105	-375	366	34	-10	-401	-19	0.760	0.234	1.00	Yes	0.418	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.78**
	Structure 3	$U_0 - L_1$	658.95	-----	-64	67	-372	311	-137	43	-571	-185	0.714	0.284	1.00	Yes	0.393	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.93**
		$U_1 - L_2$	660.15	-----	-85	52	-330	233	35	10	-683	-272	0.715	0.281	1.00	Yes	0.393	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.12**
		$U_2 - L_3$	593.74	-----	-68	40	-339	244	-75	-172	-577	-260	0.702	0.297	1.00	Yes	0.386	0.163	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.67**
		$U_3 - L_4$	508.38	-----	-15	2	-152	104	-217	-204	-419	-399	0.746	0.251	1.00	Yes	0.410	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.07**
		$U_4 - L_5$	381.78	-19.88	-6	-6	-126	91	-227	-160	-508	-401	0.687	0.309	1.00	Yes	0.378	0.170	0.55	Yes	0.047	0.224	0.28	Yes	0.042	0.162	0.21	Yes	1.00	**6.59**
		$U_5 - L_6$	327.25	-145.77	27	-45	-148	-66	-169	-98	-748	-604	0.589	0.406	1.00	Yes	0.324	0.223	0.55	Yes	0.342	0.470	0.82	Yes	0.308	0.190	0.50	Yes	1.00	**10.91**
		$U_7 - L_6$	435.46	-----	-23	6	-105	23	-27	-144	-130	-273	0.783	0.213	1.00	Yes	0.431	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.62**
		$U_8 - L_7$	639.68	-----	-65	62	-195	171	71	-15	-164	-229	0.780	0.215	1.00	Yes	0.491	0.121	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.01**
		$U_8 - L_8$	786.29	-----	-57	67	-278	83	245	129	-118	-585	0.778	0.216	1.00	Yes	0.428	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.87**
		$U_{10} - L_9$	980.42	-----	-47	123	-249	190	391	305	28	-76	0.828	0.167	1.00	Yes	0.513	0.094	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.78**
		$U_{11} - L_{10}$	968.25	-----	-95	133	-306	250	491	306	369	647	0.774	0.219	1.00	Yes	0.479	0.124	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.04**
		$U_{12} - L_{11}$	928.52	-----	54	215	-81	365	675	330	152	305	0.742	0.249	1.00	Yes	0.460	0.140	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.18**
		$U_{12} - L_{13}$	610.95	-----	40	197	-96	300	562	256	101	174	0.722	0.273	1.00	Yes	0.397	0.150	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.17**
		$U_{13} - L_{14}$	667.50	-----	-62	115	-286	292	152	198	237	212	0.789	0.210	1.00	Yes	0.434	0.115	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.53**
		$U_{14} - L_{15}$	696.21	-----	-15	148	-189	233	198	194	-183	-213	0.823	0.172	1.00	Yes	0.453	0.094	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.33**
		$U_{15} - L_{16}$	558.09	-----	-6	67	-111	-2	136	173	-270	-217	0.818	0.176	1.00	Yes	0.450	0.097	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.54**
		$U_{17} - L_{16}$	77.26	-329.38	59	-5	-96	-118	269	293	-316	-365	0.139	0.257	0.40	Yes	0.076	0.141	0.22	Yes	0.753	0.246	1	Yes	0.697	0.151	0.85	Yes	1.00	**10.40**
		$U_{18} - L_{17}$	24.37	-222.61	41	-27	-86	-24	96	156	-1320	-188	0.044	0.493	0.54	Yes	0.024	0.271	0.30	Yes	0.512	0.481	1	Yes	0.471	0.110	0.59	Yes	1.00	**7.76**
		$U_{19} - L_{18}$	417.04	-119.09	27	-21	-89	0	37	-1	-234	-462	0.750	0.248	1.00	Yes	0.413	0.136	0.55	Yes	0.273	0.209	0.49	Yes	0.252	0.114	0.37	Yes	1.00	**6.38**
		$U_{20} - L_{19}$	616.64	-69.91	-20	-1	-78	64	31	-19	-379	-195	0.809	0.187	1.00	Yes	0.488	0.103	0.60	Yes	0.119	0.142	0.27	Yes	0.108	0.091	0.20	Yes	1.00	**6.68**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression										Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield								
							Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
South Truss - Upper Chord	Structure 1	U_0 - U_1			-----	-575.77	866	-910	-594	-17	672	-846	-122	120	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.122	0.91	Yes	0.776	0.216	1.00	Yes	1.00	**10.76**
		U_1 - U_2			59.34	-509.51	-95	133	-321	-702	-165	158	-81	-506	0.068	0.252	0.33	Yes	0.047	0.173	0.22	Yes	0.693	0.298	1	Yes	0.687	0.167	0.86	Yes	1.00	**4.75**
		U_2 - U_3			282.04	-579.56	-49	407	-758	-197	-126	188	561	-612	0.323	0.283	0.61	Yes	0.218	0.187	0.41	Yes	0.789	0.205	1	Yes	0.782	0.180	0.97	Yes	1.00	**6.44**
		U_3 - U_4			552.94	-595.82	182	459	-551	-305	-242	-16	-248	-403	0.634	0.199	0.84	Yes	0.435	0.136	0.58	Yes	0.811	0.186	1	Yes	0.803	0.131	0.94	Yes	1.00	**7.34**
		U_4 - U_5			546.52	-573.59	233	438	-637	-175	-117	-19	-376	-170	0.626	0.215	0.85	Yes	0.430	0.147	0.58	Yes	0.780	0.214	1	Yes	0.773	0.151	0.93	Yes	1.00	**7.18**
		U_5 - U_6			727.00	-153.92	309	521	-472	331	94	136	-150	-210	0.833	0.159	1.00	Yes	0.562	0.104	0.67	Yes	0.209	0.153	0.37	Yes	0.208	0.124	0.34	Yes	1.00	**6.87**
		U_6 - U_7			892.76	-----	435	210	-81	73	298	355	-167	-5	0.854	0.141	1.00	Yes	0.597	0.097	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.29**
		U_7 - U_8			962.04	-----	149	889	-476	1555	867	799	264	490	0.667	0.324	1.00	Yes	0.465	0.222	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.86**
		U_8 - U_9			797.64	-----	1582	-564	804	-262	584	52	280	568	0.654	0.337	1.00	Yes	0.447	0.229	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.95**
		U_9 - U_{10}			642.41	-----	837	-800	93	-18	709	-500	61	144	0.697	0.301	1.00	Yes	0.472	0.202	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**19.55**
		U_{10} - U_{11}			-----	-569.22	484	-1031	116	-481	310	-776	348	292	-----	-----	-----	-----	-----	-----	-----	-----	0.733	0.266	1	Yes	0.726	0.231	0.96	Yes	1.00	**10.23**
		U_{11} - U_{12}			-----	-919.17	140	-216	-17	-807	12	93	81	-233	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.127	1	Yes	0.862	0.134	1.00	Yes	1.00	**3.53**
		U_{12} - U_{13}			-----	-1265.57	-59	-272	-495	-597	75	3	728	-459	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.134	1	Yes	0.845	0.082	0.93	Yes	1.00	**4.19**
		U_{13} - U_{14}			-----	-1435.01	-195	-502	-549	-1104	-47	-14	-53	-278	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.163	1	Yes	0.823	0.122	0.95	Yes	1.00	**4.34**
		U_{14} - U_{15}			-----	-1431.95	-404	-291	-1061	-671	35	-277	-174	-277	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.166	1	Yes	0.821	0.117	0.94	Yes	1.00	**4.33**
		U_{15} - U_{16}			-----	-1475.53	-198	-465	-734	-771	-110	-417	-318	-280	-----	-----	-----	-----	-----	-----	-----	-----	0.855	0.141	1	Yes	0.846	0.085	0.94	Yes	1.00	**4.91**
		U_{16} - U_{17}			-----	-1454.25	-375	-196	-1025	-426	-49	-242	-193	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.843	0.152	1	Yes	0.834	0.113	0.95	Yes	1.00	**5.97**
		U_{17} - U_{18}			-----	-1062.45	-265	-53	-661	11	-122	73	-132	-15	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.158	1	Yes	0.831	0.108	0.94	Yes	1.00	**4.10**
		U_{18} - U_{19}			-----	-703.30	-254	16	-650	114	370	-140	198	-238	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.194	1	Yes	0.791	0.131	0.93	Yes	1.00	**4.06**
		U_{19} - U_{20}			-----	-604.53	-207	-68	-1069	-192	-52	-109	-129	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.686	0.312	1	Yes	0.680	0.215	0.90	Yes	1.00	**11.07**
	Structure 2	U_0 - U_1			-----	-544.39	2080	-1765	-728	-425	1282	-512	-431	699	-----	-----	-----	-----	-----	-----	-----	-----	0.647	0.244	0.9	Yes	0.643	0.353	1.00	Yes	1.00	**10.20**
		U_1 - U_2			-----	-795.79	-45	-580	-279	-873	284	632	249	-311	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.219	1	Yes	0.768	0.132	0.91	Yes	1.00	**7.02**
		U_2 - U_3			-----	-1203.38	-78	-713	-261	-876	-237	-352	278	-603	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.133	1	Yes	0.854	0.089	0.95	Yes	1.00	**8.32**
		U_3 - U_4			-----	-1429.83	-517	-500	-895	-1286	-122	-25	-9	-344	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.176	1	Yes	0.814	0.115	0.93	Yes	1.00	**3.90**
		U_4 - U_5			-----	-1558.60	-565	-510	-1106	-1386	-130	-71	10	-619	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.189	1	Yes	0.800	0.115	0.92	Yes	1.00	**3.82**
		U_5 - U_6			-----	-1622.78	-544	55	-1268	-844	-198	-37	-220	-444	-----	-----	-----	-----	-----	-----	-----	-----	0.839	0.158	1	Yes	0.833	0.105	0.94	Yes	1.00	**3.89**
		U_6 - U_7			-----	-1409.38	-297	-194	-1079	-1236	-170	-87	-188	-328	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.189	1	Yes	0.803	0.110	0.92	Yes	1.00	**3.54**
		U_7 - U_8			-----	-1408.19	-334	-180	-1393	-869	-79	-174	-263	-379	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.189	1	Yes	0.802	0.124	0.93	Yes	1.00	**3.55**
		U_8 - U_9			-----	-1232.83	-322	244	-1218	-313	-15	-192	-252	-309	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.154	1	Yes	0.836	0.129	0.97	Yes	1.00	**4.14**
		U_9 - U_{10}			350.38	-947.11	-42	580	-1236	-25	-131	-245	-481	-486	0.257	0.203	0.47	Yes	0.174	0.137	0.32	Yes	0.822	0.168	1	Yes	0.817	0.150	0.97	Yes	1.00	**5.26**
		U_{10} - U_{11}			871.28	-619.67	390	643	-1101	-41	-216	-114	-817	-356	0.736	0.255	1.00	Yes	0.501	0.168	0.67	Yes	0.620	0.212	0.84	Yes	0.616	0.155	0.78	Yes	1.00	**7.31**
		U_{11} - U_{12}			971.19	-----	240	677	-863	507	21	29	-425	-437	0.820	0.175	1.00	Yes	0.551	0.117	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.98**
		U_{12} - U_{13}			1298.21	-----	508	53	-324	-111	314	517	-606	-55	0.877	0.122	1.00	Yes	0.625	0.084	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.82**
		U_{13} - U_{14}			1215.84	-----	-10	1831	-1193	3505	845	1031	208	726	0.598	0.395	1.00	Yes	0.423	0.260	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.10**
		U_{14} - U_{15}			1293.10	-----	3240	-425	1847	-226	803	444	561	695	0.636	0.355	1.00	Yes	0.450	0.233	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.47**
		U_{15} - U_{16}			1466.16	-----	127	-184	-107	-601	458	390	517	-214	0.886	0.112	1.00	Yes	0.528	0.133	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.57**
		U_{16} - U_{17}			1076.11	-----	1003	-345	346	-127	417	-401	341	733	0.793	0.203	1.00	Yes	0.480	0.183	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.50**
		U_{17} - U_{18}			717.55	-----	1079	-700	132	-168	338	-230	359	642	0.720	0.277	1.00	Yes	0.551	0.117	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**14.93**
		U_{18} - U_{19}			832.03	-419.47	584	348	72	-582	-64	193	227	-428	0.835	0.162	1.00	Yes	0.548	0.104	0.66	Yes	0.498	0.126	0.63	Yes	0.495	0.099	0.60	Yes	1.00	**7.62**
		U_{19} - U_{20}			395.90	-724.06	274	174	-212	-929	-108	127	-51	-385	0.371	0.201	0.58	Yes	0.246	0.132	0.38	Yes	0.804	0.188	1	Yes	0.799	0.149	0.95	Yes	1.00	**4.59**
		U_{20} - U_{21}			349.37	-896.26	157	81	-765	-514	-69	48	581	-509	0.271	0.174	0.45	Yes	0.190	0.115	0.31	Yes	0.824	0.171	1	Yes	0.818	0.111	0.93	Yes	1.00	**4.98**
		U_{21} - U_{22}			300.48	-879.65	27	82	-580	-803	-191	-54	-92	-248	0.233	0.143	0.38	Yes	0.165	0.096	0.27	Yes	0.809	0.184	1	Yes	0.803	0.116	0.92	Yes	1.00	**4.82**
		U_{22} - U_{23}			297.17	-873.70	89	19	-878	-646	-92	-139	-195	-185	0.231	0.148	0.38	Yes	0.163	0.099	0.27	Yes	0.803	0.196	1	Yes	0.797	0.127	0.93	Yes	1.00	**4.79**
		U_{23} - U_{24}			447.58	-892.00	145	206	-873	-301	9	-46	-360	-153	0.347	0.166	0.52	Yes	0.243	0.108	0.36	Yes	0.820	0.179	1	Yes	0.814	0.126	0.95	Yes	1.00	**6.09**
		U_{24} - U_{25}			741.89	-668.53	392	435	-1151	102	24	-30	-749	-328	0.696	0.285	0.99	Yes	0.461	0.187	0.65	Yes	0.742	0.254	1	Yes	0.738	0.184	0.93	Yes	1.00	**8.48**
		U_{25} - U_{26}			798.16	-364.55	357	547	-754	445	30	-9	-437	-275	0.801	0.192	1.00	Yes	0.526	0.123	0.65	Yes	0.433	0.172	0.61	Yes	0.431	0.128	0.56	Yes	1.00	**8.11**
		U_{26} - U_{27}			816.59	-----	377	408	-559	480	16	56	-560	-178	0.820	0.177	1.00	Yes	0.546	0.117	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.74**
		U_{27} - U_{28}			1125.68	-----	331	600	-622	976	348	402	-423	-303	0.829	0.167	1.00	Yes	0.552	0.110	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.34**
		U_{28} - U_{29}			1141.38	-----	1360	364	-796	-306	1023	1748	-924	-1034	0.690	0.302	1.00	Yes	0.491	0.208	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**17.23**
		U_{29} - U_{30}			1290.27	-----	-10	1720	-325	3083	806	1029	526	1052	0.634	0.357	1.00	Yes	0.449	0.235	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.28**
		U_{30} - U_{31}			1256.83	-----	3415	-939	1924	-529	770	102	873	845	0.618	0.376	1.00	Yes	0.438	0.247	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.85**
		U_{31} - U_{32}			1264.19	-----	83	388	-351	31	197	387	997	8	0.854	0.144	1.00	Yes	0.609	0.100	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.92**
		U_{32} - U_{33}			905.15	-181.99	1009	-379	142	-593	339	-522	346	746	0.765	0.233	1.00	Yes	0.514	0.155	0.67	Yes	0.182	0.166	0.35	Yes	0.181	0.142	0.33	Yes	1.00	**9.26**
		U_{33} - U_{34}			967.51	-730.49	666	381	-225	-939	-28	285	318	406	0.817	0.182	1.00	Yes	0.556	0.119	0.68	Yes	0.730	0.100	0.84	Yes	0.726	0.132	0.86	Yes	1.00	**9.06**
		U_{34} - U_{35}			273.50	-1006.20	504	-93	-163	-1014	46	76	345	-519	0.201	0.180	0.39	Yes	0.136	0.121	0.26	Yes	0.873	0.121	1	Yes	0.868	0.123	1.00	Yes	1.00	**5.59**
		U_{35} - U_{36}			-----	-1262.05	113	-452	-320	-1089	-15	92	78	-215	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.130	1	Yes	0.856	0.116	0.98	Yes	1.00	**3.47**
		U_{36} - U_{37}			-----	-1439.77	-285	-308	-876	-1286	-18	-118	11	-256	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.168	1	Yes	0.820	0.115	0.94	Yes	1.00	**3.20**
		U_{37} - U_{38}			-----	-1427.06	-196	-420	-1182	-1064	-94	-195	-171	-340	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.178	1	Yes	0.813	0.105	0.92	Yes	1.00	**3.14**
		U_{38} - U_{39}			-----	-1641.27	-125	-615	-940	-1213	13	-201	-228	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.148	1	Yes	0.843	0.101	0.95	Yes	1.00	**3.70**
		U_{39} - U_{40}			-----	-1582.68	-579	-559	-1412	-928	23	-62	-286	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.172	1	Yes	0.813	0.117	0.93	Yes	1.00	**3.86**
		U_{40} - U_{41}			-----	-1471.93	-492	-481	-1177	-823	108	-147	-110	-190	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.154	1	Yes	0.838	0.105	0.95	Yes	1.00	**4.29**
		U_{41} - U_{42}			-----	-1220.15	-396	-136	-1128	-31	71	-23	-186	-147	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.121	1	Yes	0.866	0.115	0.99	Yes	1.00	**5.13**
		U_{42} - U_{43}			-----	-884.70	-255	-29	-900	71	192	-195	-178	-234	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.129	0.99	Yes	0.854	0.137	1.00	Yes	1.00	**6.07**
		U_{43} - U_{44}			-----	-652.56	-119	-267	-1329	7	-128	-128	-112	108	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.216	1	Yes	0.771	0.226	1.00	Yes	1.00	**12.78**
	Structure 3	U_0 - U_1			-----	-538.05	1943	-1482	-505	-515	1328	-850	-375	723	-----	-----	-----	-----	-----	-----	-----	-----	0.611	0.292	0.91	Yes	0.605	0.391	1.00	Yes	1.00	**12.44**
		U_1 - U_2			-----	-698.37	-62	-222	-125	-609	-30	-97	212	581	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.202	1	Yes	0.786	0.123	0.91	Yes	1.00	**8.03**
		U_2 - U_3			-----	-1085.74	35	-597	-97	-387	143	-691	240	165	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.133	1	Yes	0.850	0.097	0.95	Yes	1.00	**4.77**
		U_3 - U_4			-----	-1372.54	-211	-397	-458	-1277	-156	-146	-214	-560	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.201	1	Yes	0.787	0.141	0.93	Yes	1.00	**4.44**
		U_4 - U_5			-----	-1440.76	-434	-166	-1084	-476	-100	-64	543	-642	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.164	1	Yes	0.826	0.120	0.95	Yes	1.00	**4.45**
		U_5 - U_6			-----	-1412.58	-255	-373	-618	-1060	-179	-149	-148	-361	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.176	1	Yes	0.810	0.117	0.93	Yes	1.00	**4.65**
		U_6 - U_7			-----	-1400.86	-493	-157	-1230	-513	-121	-300	-261	-365	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.182	1	Yes	0.803	0.136	0.94	Yes	1.00	**4.60**
		U_7 - U_8			-----	-1221.01	-254	-9	-703	-207	-119	-336	-369	-487	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.169	1	Yes	0.816	0.097	0.92	Yes	1.00	**3.83**
		U_8 - U_9			-----	-845.45	-170	200	-657	82	-226	-212	-402	-262	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.191	1	Yes	0.793	0.109	0.91	Yes	1.00	**3.71**
		U_9 - U_{10}			256.69	-550.53	-85	360	-920	314	-20	-42	-199	-294	0.278	0.253	0.54	Yes	0.186	0.163	0.35	Yes	0.709	0.287	1	Yes	0.703	0.206	0.91	Yes	1.00	**6.06**
		U_{10} - U_{11}			752.93	-----	353	245	-382	314	79	242	-569	-190	0.817	0.177	1.00	Yes	0.553	0.119	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.14**
		U_{11} - U_{12}			805.96	-----	-127	860	-687	1548	518	626	52	375	0.660	0.336	1.00	Yes	0.452	0.229	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.08**
		U_{12} - U_{13}			966.94	-----	1837	-416	897	-153	241	112	396	489	0.670	0.328	1.00	Yes	0.467	0.224	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.95**
		U_{13} - U_{14}			854.52	-----	218	363	13	-462	-98	372	-37	-563	0.817	0.176	1.00	Yes	0.571	0.121	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.79**
		U_{14} - U_{15}			642.63	-280.51	457	224	25	-368	-55	262	909	-614	0.737	0.262	1.00	Yes	0.497	0.174	0.68	Yes	0.382	0.177	0.56	Yes	0.378	0.109	0.49	Yes	1.00	**7.05**
		U_{15} - U_{16}			373.90	-629.83	312	161	-238	-590	-72	227	46	5	0.429	0.179	0.61	Yes	0.294	0.122	0.42	Yes	0.857	0.137	1	Yes	0.849	0.140	0.99	Yes	1.00	**6.30**
		U_{16} - U_{17}			469.51	-647.65	452	107	-527	-498	223	-37	146	-185	0.538	0.163	0.71	Yes	0.369	0.112	0.49	Yes	0.881	0.093	0.98	Yes	0.873	0.125	1.00	Yes	1.00	**7.94**
		U_{17} - U_{18}			128.44	-644.54	258	-164	-410	-529	76	49	-48	-86	0.147	0.140	0.29	Yes	0.099	0.091	0.20	Yes	0.877	0.090	0.97	Yes	0.869	0.126	1.00	Yes	1.00	**5.35**
		U_{18} - U_{19}			2.67	-587.00	30	-68	-644	-153	230	-196	100	-287	0.003	0.202	0.21	Yes	0.002	0.138	0.15	Yes	0.799	0.201	1	Yes	0.792	0.153	0.95	Yes	1.00	**5.26**
		U_{19} - U_{20}			37.13	-606.11	124	-328	-584	-549	-143	-111	-168	-59	0.043	0.167	0.21	Yes	0.029	0.115	0.15	Yes	0.825	0.168	1	Yes	0.817	0.139	0.96	Yes	1.00	**10.44**

Moment (Start) AB Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression												Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield									
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass								
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																						
South Truss - Lower Chord	Structure 1	L_0 - L_1	28.57	-221.62	696	-1158	-307	176	-558	-2051	64	233	0.044	0.788	0.84	Yes	0.026	0.469	0.50	Yes	0.402	0.593	1	Yes	0.399	0.348	0.75	Yes	1.00	**24.72**
		L_1 - L_2	377.55	-50.10	87	-795	-20	62	-812	463	396	-180	0.578	0.413	1.00	Yes	0.353	0.269	0.63	Yes	0.091	0.237	0.33	Yes	0.090	0.239	0.33	Yes	1.00	**6.56**
		L_2 - L_3	637.93	-170.72	-10	109	-730	-507	-194	133	208	-511	0.734	0.258	1.00	Yes	0.425	0.153	0.58	Yes	0.233	0.231	0.47	Yes	0.231	0.176	0.41	Yes	1.00	**6.01**
		L_3 - L_4	660.50	-398.82	48	437	-533	-347	345	-279	-632	283	0.760	0.230	1.00	Yes	0.451	0.144	0.60	Yes	0.545	0.146	0.7	Yes	0.540	0.129	0.67	Yes	1.00	**7.17**
		L_4 - L_5	-----	-570.64	109	466	-338	329	-86	218	221	48	-----	-----	-----	-----	-----	-----	-----	-----	0.877	0.114	1	Yes	0.869	0.123	1.00	Yes	1.00	**3.98**
		L_5 - L_6	-----	-747.22	126	588	-118	377	189	-208	81	-184	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.122	1	Yes	0.862	0.130	1.00	Yes	1.00	**3.74**
		L_6 - L_7	-----	-1168.42	289	-142	-158	224	-289	230	44	290	-----	-----	-----	-----	-----	-----	-----	-----	0.951	0.045	1	Yes	0.940	0.045	0.99	Yes	1.00	**5.91**
		L_7 - L_8	-----	-1227.90	-30	707	-78	1317	403	267	368	465	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.203	1	Yes	0.778	0.174	0.96	Yes	1.00	**2.81**
		L_8 - L_9	-----	-1249.84	1224	-64	705	-34	484	292	243	352	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.193	1	Yes	0.792	0.162	0.96	Yes	1.00	**3.45**
		L_9 - L_{10}	-----	-1063.43	820	-900	170	68	-225	236	438	-260	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.065	0.94	Yes	0.856	0.142	1.00	Yes	1.00	**10.66**
		L_{10} - L_{11}	53.65	-550.26	577	-546	182	-290	-146	-471	-264	153	0.069	0.235	0.31	Yes	0.040	0.140	0.19	Yes	0.846	0.129	0.98	Yes	0.838	0.153	1.00	Yes	1.00	**8.45**
		L_{11} - L_{12}	412.96	-----	589	-1080	233	-327	-985	822	96	-43	0.535	0.458	1.00	Yes	0.321	0.294	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.93**
		L_{12} - L_{13}	1064.21	-----	46	-161	-429	-549	-157	122	-49	-508	0.840	0.157	1.00	Yes	0.537	0.095	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.38**
		L_{13} - L_{14}	1330.66	-----	182	-526	-108	-1242	147	17	-555	458	0.783	0.217	1.00	Yes	0.507	0.134	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.34**
		L_{14} - L_{15}	1605.86	-----	-496	-169	-1486	-407	-184	93	450	18	0.785	0.211	1.00	Yes	0.510	0.128	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.35**
		L_{15} - L_{16}	1736.32	-----	-278	-435	-929	-1042	-1	-186	-2	338	0.848	0.149	1.00	Yes	0.545	0.088	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.94**
		L_{16} - L_{17}	1277.75	-----	-416	55	-1127	108	-123	174	189	-206	0.808	0.184	1.00	Yes	0.524	0.113	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.31**
		L_{17} - L_{18}	946.60	-----	-225	-16	-669	97	83	-112	-306	-153	0.824	0.168	1.00	Yes	0.528	0.102	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.34**
		L_{18} - L_{19}	433.26	-----	-259	230	-972	533	-163	125	-190	74	0.663	0.331	1.00	Yes	0.449	0.207	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.25**
		L_{19} - L_{20}	70.20	-281.77	-156	56	-1482	988	140	31	-67	-15	0.107	0.474	0.59	Yes	0.066	0.321	0.39	Yes	0.512	0.478	1	Yes	0.507	0.445	0.96	Yes	1.00	**18.97**
	Structure 2	L_0 - L_1	43.66	-441.91	444	-1498	-82	-85	-342	-1188	35	122	0.053	0.500	0.56	Yes	0.032	0.314	0.35	Yes	0.635	0.358	1	Yes	0.631	0.305	0.94	Yes	1.00	**15.19**
		L_1 - L_2	452.13	-----	598	-1483	125	-230	-896	732	169	-115	0.549	0.449	1.00	Yes	0.327	0.284	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.37**
		L_2 - L_3	1041.40	-----	93	-972	-106	-359	294	-123	-166	165	0.821	0.172	1.00	Yes	0.538	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.01**
		L_3 - L_4	1308.34	-----	42	-941	-135	-1470	315	-16	-606	655	0.769	0.224	1.00	Yes	0.518	0.140	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.48**
		L_4 - L_5	1803.17	-----	-416	-347	-1089	-1233	-96	157	504	83	0.841	0.151	1.00	Yes	0.557	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.00**
		L_5 - L_6	1885.64	-----	-204	-419	-725	-1748	197	-96	-140	471	0.809	0.184	1.00	Yes	0.543	0.113	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.44**
		L_6 - L_7	1898.21	-----	-525	-173	-1813	-1377	-160	221	362	-562	0.803	0.194	1.00	Yes	0.534	0.115	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.93**
		L_7 - L_8	1386.56	-56.49	-290	413	-1338	-407	226	-137	-596	334	0.795	0.197	1.00	Yes	0.522	0.118	0.65	Yes	0.038	0.146	0.19	Yes	0.038	0.148	0.19	Yes	1.00	**4.66**
		L_8 - L_9	1149.50	-460.79	-56	616	-1106	341	-83	180	391	-145	0.804	0.186	1.00	Yes	0.542	0.117	0.66	Yes	0.382	0.089	0.48	Yes	0.379	0.149	0.53	Yes	1.00	**5.72**
		L_9 - L_{10}	651.22	-794.98	-115	852	-1022	227	136	-176	-132	-83	0.581	0.185	0.77	Yes	0.338	0.115	0.46	Yes	0.840	0.091	0.94	Yes	0.835	0.163	1.00	Yes	1.00	**6.06**
		L_{10} - L_{11}	-----	-755.50	24	563	-635	561	-89	94	24	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.893	0.075	0.97	Yes	0.887	0.111	1.00	Yes	1.00	**3.66**
		L_{11} - L_{12}	-----	-1035.09	-69	1109	-529	880	88	-337	77	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.125	0.99	Yes	0.849	0.151	1.00	Yes	1.00	**3.88**
		L_{12} - L_{13}	-----	-1479.82	211	-945	-500	-177	-410	15	34	213	-----	-----	-----	-----	-----	-----	-----	-----	0.893	0.099	1	Yes	0.885	0.094	0.98	Yes	1.00	**5.58**
		L_{13} - L_{14}	-----	-1504.08	-531	1555	-946	2711	506	464	189	371	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.191	0.96	Yes	0.757	0.237	1.00	Yes	1.00	**3.16**
		L_{14} - L_{15}	-----	-1511.14	2677	-893	1624	-530	378	222	357	304	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.178	0.95	Yes	0.760	0.234	1.00	Yes	1.00	**2.82**
		L_{15} - L_{16}	-----	-1407.92	-153	-65	-1070	187	293	-439	223	-299	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.142	1	Yes	0.842	0.106	0.95	Yes	1.00	**7.03**
		L_{16} - L_{17}	-----	-1161.23	1210	-354	687	-146	-332	-591	-419	11	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.137	0.99	Yes	0.846	0.149	1.00	Yes	1.00	**4.71**
		L_{17} - L_{18}	-----	-812.35	788	-811	353	96	-496	442	32	-181	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.133	1	Yes	0.853	0.130	0.99	Yes	1.00	**7.63**
		L_{18} - L_{19}	-----	-648.58	683	124	245	-343	-239	38	143	-57	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.107	0.98	Yes	0.864	0.132	1.00	Yes	1.00	**6.03**
		L_{19} - L_{20}	396.14	-632.83	527	327	173	-771	183	-228	-560	378	0.449	0.235	0.69	Yes	0.265	0.147	0.42	Yes	0.849	0.124	0.98	Yes	0.843	0.149	1.00	Yes	1.00	**8.05**
		L_{20} - L_{21}	969.51	-450.95	439	74	-810	-1001	-189	42	7	-719	0.773	0.223	1.00	Yes	0.507	0.137	0.65	Yes	0.426	0.181	0.61	Yes	0.423	0.146	0.57	Yes	1.00	**6.99**
		L_{21} - L_{22}	940.69	-273.71	180	11	-588	-1294	143	-188	-481	445	0.750	0.241	1.00	Yes	0.502	0.152	0.66	Yes	0.259	0.191	0.45	Yes	0.257	0.189	0.45	Yes	1.00	**5.81**
		L_{22} - L_{23}	910.24	-337.57	68	186	-1490	-379	-75	190	445	-50	0.726	0.265	1.00	Yes	0.485	0.167	0.66	Yes	0.319	0.212	0.54	Yes	0.317	0.218	0.54	Yes	1.00	**6.57**
		L_{23} - L_{24}	998.31	-701.59	223	586	-1106	-316	155	-168	-74	386	0.796	0.203	1.00	Yes	0.522	0.122	0.65	Yes	0.663	0.136	0.8	Yes	0.658	0.161	0.82	Yes	1.00	**10.72**
		L_{24} - L_{25}	17.41	-638.72	383	514	-757	657	-110	151	573	-267	0.020	0.234	0.26	Yes	0.012	0.146	0.16	Yes	0.857	0.086	0.95	Yes	0.851	0.146	1.00	Yes	1.00	**8.20**
		L_{25} - L_{26}	-----	-649.84	120	673	-504	543	100	-168	-100	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.102	0.98	Yes	0.866	0.130	1.00	Yes	1.00	**6.31**
		L_{26} - L_{27}	-----	-844.75	263	397	-410	669	-74	335	112	-29	-----	-----	-----	-----	-----	-----	-----	-----	0.893	0.083	0.98	Yes	0.887	0.107	1.00	Yes	1.00	**5.34**
		L_{27} - L_{28}	-----	-1124.98	113	1133	-439	1425	452	-274	-10	-174	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.141	0.97	Yes	0.819	0.176	1.00	Yes	1.00	**7.78**
		L_{28} - L_{29}	-----	-1515.98	510	-537	-415	-487	52	873	-251	14	-----	-----	-----	-----	-----	-----	-----	-----	0.914	0.079	1	Yes	0.907	0.053	0.97	Yes	1.00	**7.54**
		L_{29} - L_{30}	-----	-1499.06	-628	1470	-1049	2746	634	722	224	369	-----	-----	-----	-----	-----	-----	-----	-----	0.761	0.201	0.97	Yes	0.754	0.240	1.00	Yes	1.00	**3.44**
		L_{30} - L_{31}	-----	-1537.69	2520	-847	1727	-525	244	57	515	409	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.181	0.97	Yes	0.774	0.220	1.00	Yes	1.00	**2.22**
		L_{31} - L_{32}	-----	-1524.07	-151	-355	-592	-326	354	-267	-340	-152	-----	-----	-----	-----	-----	-----	-----	-----	0.919	0.080	1	Yes	0.912	0.059	0.98	Yes	1.00	**3.82**
		L_{32} - L_{33}	-----	-1044.73	1026	-320	575	-339	82	-8	-428	49	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.113	0.98	Yes	0.857	0.140	1.00	Yes	1.00	**3.38**
		L_{33} - L_{34}	12.18	-743.43	711	-325	420	-478	-155	222	138	-35	0.012	0.154	0.17	Yes	0.007	0.096	0.11	Yes	0.879	0.079	0.96	Yes	0.873	0.124	1.00	Yes	1.00	**4.50**
		L_{34} - L_{35}	652.21	-810.15	877	-78	-8	-636	-208	82	-212	343	0.582	0.182	0.77	Yes	0.339	0.112	0.46	Yes	0.856	0.085	0.95	Yes	0.851	0.140	1.00	Yes	1.00	**7.92**
		L_{35} - L_{36}	1195.45	-711.25	781	70	164	-963	173	-180	336	138	0.836	0.162	1.00	Yes	0.563	0.101	0.67	Yes	0.590	0.087	0.68	Yes	0.585	0.130	0.72	Yes	1.00	**10.33**
		L_{36} - L_{37}	1376.37	-----	324	-243	-526	-1474	-198	148	500	-486	0.789	0.204	1.00	Yes	0.518	0.121	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.19**
		L_{37} - L_{38}	1812.28	-----	-126	-626	-1599	-1870	69	-192	-1010	528	0.767	0.227	1.00	Yes	0.510	0.136	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.59**
		L_{38} - L_{39}	1841.34	-----	-527	-219	-1859	-698	-121	179	635	139	0.790	0.205	1.00	Yes	0.530	0.126	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.13**
		L_{39} - L_{40}	1811.48	-----	-352	-426	-1382	-952	120	-152	130	323	0.845	0.152	1.00	Yes	0.559	0.091	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.58**
		L_{40} - L_{41}	1385.16	-----	-422	23	-1371	61	-26	302	203	-168	0.814	0.185	1.00	Yes	0.548	0.115	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.51**
		L_{41} - L_{42}	1046.98	-----	-213	-87	-1031	207	143	-67	-216	-74	0.825	0.172	1.00	Yes	0.541	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.95**
		L_{42} - L_{43}	558.56	-17.14	-231	203	-1244	567	183	369	179	21	0.678	0.314	1.00	Yes	0.404	0.201	0.61	Yes	0.025	0.152	0.18	Yes	0.024	0.253	0.28	Yes	1.00	**11.09**
		L_{43} - L_{44}	-----	-347.04	-143	-5	-1921	807	524	153	305	89	-----	-----	-----	-----	-----	-----	-----	-----	0.499	0.491	1	Yes	0.496	0.391	0.89	Yes	1.00	**18.09**
	Structure 3	L_0 - L_1	-----	-452.37	332	-615	53	-169	-43	-194	27	122	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.127	0.95	Yes	0.815	0.185	1.00	Yes	1.00	**5.93**
		L_1 - L_2	161.86	-37.99	981	-1689	139	-189	-737	1143	160	-114	0.248	0.744	1.00	Yes	0.168	0.474	0.65	Yes	0.069	0.440	0.51	Yes	0.068	0.507	0.58	Yes	1.00	**16.39**
		L_2 - L_3	935.01	-----	149	-645	-139	-357	438	-49	-254	172	0.814	0.180	1.00	Yes	0.521	0.110	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.94**
		L_3 - L_4	1153.03	-----	119	-1334	19	-672	-347	832	129	8	0.729	0.270	1.00	Yes	0.473	0.168	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.28**
		L_4 - L_5	1625.51	-----	-378	-263	-1271	-919	-27	228	218	-620	0.794	0.197	1.00	Yes	0.510	0.117	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.00**
		L_5 - L_6	1603.64	-----	-140	-480	-566	-1416	255	-45	-430	627	0.783	0.215	1.00	Yes	0.509	0.131	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.33**
		L_6 - L_7	1298.70	-----	-489	236	-1386	158	-51	263	433	-106	0.764	0.227	1.00	Yes	0.495	0.139	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.29**
		L_7 - L_8	1105.01	-76.17	-89	185	-537	-180	145	-198	-143	144	0.872	0.118	1.00	Yes	0.558	0.071	0.63	Yes	0.071	0.097	0.17	Yes	0.071	0.095	0.17	Yes	1.00	**8.72**
		L_8 - L_9	553.14	-349.42	-145	441	-857	413	-128	193	278	-276	0.716	0.276	1.00	Yes	0.430	0.180	0.61	Yes	0.537	0.113	0.65	Yes	0.532	0.227	0.76	Yes	1.00	**8.96**
		L_9 - L_{10}	-----	-564.41	-61	519	-518	403	199	-87	-47	-157	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.079	0.95	Yes	0.860	0.137	1.00	Yes	1.00	**7.43**
		L_{10} - L_{11}	-----	-1098.17	205	-192	-504	707	-438	-406	319	115	-----	-----	-----	-----	-----	-----	-----	-----	0.894	0.069	0.97	Yes	0.884	0.111	1.00	Yes	1.00	**12.25**
		L_{11} - L_{12}	-----	-1250.49	-37	779	-90	1334	411	144	90	164	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.189	1	Yes	0.792	0.177	0.97	Yes	1.00	**4.36**
		L_{12} - L_{13}	-----	-1276.48	1281	-57	753	-32	65	7	28	208	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.173	1	Yes	0.808	0.170	0.98	Yes	1.00	**3.19**
		L_{13} - L_{14}	-----	-1082.75	305	-518	23	200	-135	158	223	-256	-----	-----	-----	-----	-----	-----	-----	-----	0.881	0.117	1	Yes	0.872	0.081	0.96	Yes	1.00	**5.39**
		L_{14} - L_{15}	-----	-730.30	577	110	149	-286	-260	74	-182	-606	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.145	1	Yes	0.843	0.128	0.98	Yes	1.00	**5.16**
		L_{15} - L_{16}	192.22	-560.81	483	146	175	-511	259	-223	-657	530	0.249	0.252	0.51	Yes	0.149	0.160	0.31	Yes	0.862	0.134	1	Yes	0.854	0.135	0.99	Yes	1.00	**5.93**
		L_{16} - L_{17}	719.56	-191.49	414	-30	-438	-397	-172	160	358	-47	0.828	0.163	1.00	Yes	0.492	0.103	0.60	Yes	0.262	0.134	0.4	Yes	0.259	0.106	0.37	Yes	1.00	**6.30**
		L_{17} - L_{18}	735.52	-82.03	111	-66	-526	-449	93	-108	-149	68	0.846	0.151	1.00	Yes	0.490	0.090	0.58	Yes	0.112	0.165	0.28	Yes	0.111	0.127	0.24	Yes	1.00	**7.25**
		L_{18} - L_{19}	467.82	-47.00	31	-32	-728	2	-92	212	-10	290	0.716	0.281	1.00	Yes	0.437	0.187	0.63	Yes	0.085	0.260	0.35	Yes	0.085	0.219	0.31	Yes	1.00	**7.26**
		L_{19} - L_{20}	212.80	-91.87	311	-434	-1964	1830	73	20	375	102	0.326	0.670	1.00	Yes	0.192	0.410	0.61	Yes	0.167	0.678	0.85	Yes	0.165	0.589	0.76	Yes	1.00	**50.08**

Moment (Start) AB Operating

Operating Loads - HS20 Lane | Calc: BKC 10/28/2009 | Check: NRF 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression											
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Verticals	Structure 1	$U_0 - L_0$			-----	-299.72	-2	47	-57	152	167	54	-783	-251	-----	-----	-----	-----	-----	-----	-----	-----	0.669	0.325	1	Yes	0.634	0.195	0.83	Yes	1.00	**2.57**
		$U_1 - L_1$			41.13	-305.63	43	-35	-235	226	610	209	-937	-387	0.074	0.571	0.65	Yes	0.041	0.314	0.36	Yes	0.668	0.326	1	Yes	0.647	0.300	0.95	Yes	1.00	**5.28**
		$U_2 - L_2$			68.69	-133.86	66	-71	-28	60	747	241	-2708	-818	0.124	0.875	1.00	Yes	0.068	0.481	0.55	Yes	0.293	0.671	0.97	Yes	0.283	0.091	0.38	Yes	1.00	**4.00**
		$U_3 - L_3$			234.35	-9.82	240	-249	27	-14	-868	-738	-682	-153	0.421	0.569	1.00	Yes	0.232	0.313	0.55	Yes	0.022	0.326	0.35	Yes	0.021	0.318	0.34	Yes	1.00	**8.45**
		$U_4 - L_4$			-----	-178.55	301	-311	74	-75	-1455	-609	686	333	-----	-----	-----	-----	-----	-----	-----	-----	0.393	0.601	1	Yes	0.378	0.398	0.78	Yes	1.00	**10.48**
		$U_5 - L_5$			-----	-363.33	181	-199	79	-85	150	211	1103	630	-----	-----	-----	-----	-----	-----	-----	-----	0.657	0.340	1	Yes	0.627	0.202	0.83	Yes	1.00	**4.47**
		$U_6 - L_6$			-----	-401.65	159	-152	82	-72	613	277	1337	659	-----	-----	-----	-----	-----	-----	-----	-----	0.608	0.385	1	Yes	0.576	0.139	0.72	Yes	1.00	**3.12**
		$U_7 - L_7$			-----	-376.20	235	-257	118	-132	254	33	961	249	-----	-----	-----	-----	-----	-----	-----	-----	0.629	0.363	1	Yes	0.580	0.253	0.84	Yes	1.00	**2.69**
		$U_8 - L_8$			-----	-1176.32	212	-261	-344	407	993	171	-1509	-636	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.150	1	Yes	0.816	0.076	0.90	Yes	1.00	**6.60**
		$U_9 - L_9$			-----	-659.33	-230	262	-407	450	586	221	-446	-123	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.175	0.97	Yes	0.745	0.250	1.00	Yes	1.00	**3.43**
		$U_{10} - L_{10}$			-----	-785.94	-158	155	-349	362	598	275	-752	-277	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.185	1	Yes	0.775	0.188	0.97	Yes	1.00	**5.11**
		$U_{11} - L_{11}$			-----	-663.09	-166	222	-381	481	613	384	-729	-119	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.194	0.99	Yes	0.772	0.223	1.00	Yes	1.00	**4.86**
		$U_{12} - L_{12}$			-----	-424.08	-137	139	-211	227	664	369	-1972	-535	-----	-----	-----	-----	-----	-----	-----	-----	0.613	0.385	1	Yes	0.582	0.194	0.78	Yes	1.00	**3.07**
		$U_{13} - L_{13}$			-----	-313.30	-85	102	-171	198	544	252	-118	152	-----	-----	-----	-----	-----	-----	-----	-----	0.633	0.364	1	Yes	0.600	0.226	0.83	Yes	1.00	**3.99**
		$U_{14} - L_{14}$			-----	-150.78	-11	13	-102	117	-1608	-473	-476	-121	-----	-----	-----	-----	-----	-----	-----	-----	0.336	0.661	1	Yes	0.319	0.150	0.47	Yes	1.00	**8.24**
		$U_{15} - L_{15}$			31.08	-256.76	176	-201	-31	27	-1312	-416	456	96	0.056	0.637	0.70	Yes	0.031	0.350	0.39	Yes	0.576	0.419	1	Yes	0.543	0.257	0.81	Yes	1.00	**9.00**
		$U_{16} - L_{16}$			-----	-318.02	238	-250	37	-42	-667	-199	484	106	-----	-----	-----	-----	-----	-----	-----	-----	0.717	0.273	0.99	Yes	0.673	0.319	1.00	Yes	1.00	**7.06**
		$U_{17} - L_{17}$			-----	-418.97	199	-220	77	-90	-106	-12	504	197	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.211	1	Yes	0.723	0.223	0.95	Yes	1.00	**4.45**
		$U_{18} - L_{18}$			-----	-529.47	371	-384	174	-180	42	34	680	174	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.224	1	Yes	0.736	0.217	0.96	Yes	1.00	**4.31**
		$U_{19} - L_{19}$			-----	-643.91	391	-417	182	-196	222	19	597	116	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.191	1	Yes	0.749	0.193	0.95	Yes	1.00	**4.95**
		$U_{20} - L_{20}$			-----	-558.89	395	-458	232	-302	182	24	661	87	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.253	1	Yes	0.650	0.213	0.87	Yes	1.00	**3.48**
	Structure 2	$U_0 - L_0$			-----	-640.76	-149	267	-255	442	-28	-5	-857	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.227	1	Yes	0.687	0.188	0.88	Yes	1.00	**2.69**
		$U_1 - L_1$			-----	-714.04	-187	195	-548	551	618	150	-438	-110	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.145	0.97	Yes	0.765	0.234	1.00	Yes	1.00	**4.57**
		$U_2 - L_2$			-----	-598.53	-135	150	-434	459	619	265	-395	159	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.175	0.98	Yes	0.763	0.235	1.00	Yes	1.00	**4.17**
		$U_3 - L_3$			-----	-460.44	-65	76	-208	228	546	254	-233	135	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.211	1	Yes	0.722	0.208	0.93	Yes	1.00	**3.48**
		$U_4 - L_4$			-----	-318.38	-3	14	-182	196	574	224	-614	9	-----	-----	-----	-----	-----	-----	-----	-----	0.722	0.273	1	Yes	0.674	0.251	0.93	Yes	1.00	**4.66**
		$U_5 - L_5$			115.09	-254.89	89	-84	-135	167	579	168	-1144	-160	0.207	0.545	0.76	Yes	0.114	0.300	0.42	Yes	0.576	0.416	1	Yes	0.539	0.214	0.76	Yes	1.00	**7.15**
		$U_6 - L_6$			197.39	-----	119	-132	-53	59	599	161	-1644	-369	0.355	0.645	1.00	Yes	0.195	0.355	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.33**
		$U_7 - L_7$			-----	-174.90	210	-244	62	-70	-1426	-324	-47	-53	-----	-----	-----	-----	-----	-----	-----	-----	0.395	0.600	1	Yes	0.370	0.312	0.69	Yes	1.00	**10.97**
		$U_8 - L_8$			-----	-467.47	345	-368	167	-186	-595	-237	198	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.678	0.178	0.86	Yes	0.673	0.322	1.00	Yes	1.00	**4.64**
		$U_9 - L_9$			-----	-693.30	563	-587	278	-280	-540	-160	1046	566	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.205	0.98	Yes	0.743	0.249	1.00	Yes	1.00	**5.45**
		$U_{10} - L_{10}$			-----	-755.77	519	-524	236	-235	-219	93	1160	717	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.252	1	Yes	0.707	0.231	0.94	Yes	1.00	**4.83**
		$U_{11} - L_{11}$			-----	-723.83	451	-448	226	-218	331	365	1216	702	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.263	1	Yes	0.677	0.199	0.88	Yes	1.00	**4.16**
		$U_{12} - L_{12}$			-----	-725.04	415	-414	183	-164	746	443	1485	653	-----	-----	-----	-----	-----	-----	-----	-----	0.696	0.304	1	Yes	0.628	0.178	0.81	Yes	1.00	**3.95**
		$U_{13} - L_{13}$			-----	-623.46	519	-513	217	-216	105	-15	1174	309	-----	-----	-----	-----	-----	-----	-----	-----	0.695	0.305	1	Yes	0.601	0.248	0.85	Yes	1.00	**4.34**
		$U_{14} - L_{14}$			-----	-1158.87	528	-506	-499	461	823	92	-1354	-719	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.150	1	Yes	0.768	0.093	0.87	Yes	1.00	**8.02**
		$U_{15} - L_{15}$			-----	-685.53	-248	261	-631	615	657	57	-683	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.231	1	Yes	0.661	0.302	0.97	Yes	1.00	**4.97**
		$U_{16} - L_{16}$			-----	-713.67	-159	126	-496	481	796	157	-478	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.172	1	Yes	0.765	0.210	0.98	Yes	1.00	**4.55**
		$U_{17} - L_{17}$			-----	-642.87	-191	183	-520	526	673	150	-491	8	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.165	0.96	Yes	0.748	0.244	1.00	Yes	1.00	**4.46**
		$U_{18} - L_{18}$			-----	-581.92	-173	161	-456	489	660	167	-609	-33	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.172	0.95	Yes	0.742	0.250	1.00	Yes	1.00	**4.38**
		$U_{19} - L_{19}$			-----	-479.25	-108	104	-285	288	563	174	-727	-51	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.208	0.93	Yes	0.716	0.277	1.00	Yes	1.00	**4.30**
		$U_{20} - L_{20}$			-----	-357.14	-59	62	-183	195	586	137	-714	-136	-----	-----	-----	-----	-----	-----	-----	-----	0.732	0.259	1	Yes	0.684	0.223	0.91	Yes	1.00	**5.79**
	Structure 3	$U_{21} - L_{21}$			-----	-278.15	-31	33	-163	186	660	111	-1018	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.628	0.364	1	Yes	0.589	0.238	0.83	Yes	1.00	**7.96**
		$U_{22} - L_{22}$			-----	-161.03	111	-127	-45	54	-2198	-726	-1827	-577	-----	-----	-----	-----	-----	-----	-----	-----	0.362	0.629	1	Yes	0.341	0.162	0.51	Yes	1.00	**11.05**
		$U_{23} - L_{23}$			-----	-312.88	211	-233	34	-41	-708	-204	333	19	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.291	1	Yes	0.662	0.298	0.97	Yes	1.00	**6.31**
		$U_{24} - L_{24}$			-----	-316.05	164	-175	78	-81	-1071	-135	633	240	-----	-----	-----	-----	-----	-----	-----	-----	0.648	0.348	1	Yes	0.605	0.200	0.81	Yes	1.00	**2.61**
		$U_{25} - L_{25}$			-----	-470.56	304	-298	113	-111	-50	89	629	252	-----	-----	-----	-----	-----	-----	-----	-----	0.708	0.194	0.91	Yes	0.703	0.292	1.00	Yes	1.00	**3.59**
		$U_{26} - L_{26}$			-----	-581.55	484	-502	172	-168	48	215	716	313	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.188	0.97	Yes	0.741	0.257	1.00	Yes	1.00	**4.26**
		$U_{27} - L_{27}$			-----	-627.45	539	-543	185	-182	267	303	924	390	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.217	1	Yes	0.730	0.252	0.99	Yes	1.00	**4.88**
		$U_{28} - L_{28}$			-----	-607.74	422	-386	124	-94	701	228	1721	570	-----	-----	-----	-----	-----	-----	-----	-----	0.702	0.296	1	Yes	0.651	0.179	0.84	Yes	1.00	**4.44**
		$U_{29} - L_{29}$			-----	-607.80	598	-593	109	-116	-166	-81	1257	181	-----	-----	-----	-----	-----	-----	-----	-----	0.677	0.315	1	Yes	0.586	0.286	0.88	Yes	1.00	**5.91**
		$U_{30} - L_{30}$			-----	-1169.89	337	-350	-573	508	853	-125	-1237	-383	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.143	1	Yes	0.776	0.101	0.88	Yes	1.00	**7.19**
		$U_{31} - L_{31}$			-----	-716.90	-302	296	-538	517	482	83	-395	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.191	1	Yes	0.691	0.258	0.95	Yes	1.00	**3.82**
		$U_{32} - L_{32}$			-----	-863.67	-212	183	-467	466	565	168	-556	-57	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.163	1	Yes	0.749	0.200	0.95	Yes	1.00	**4.59**
		$U_{33} - L_{33}$			-----	-817.60	-246	230	-485	494	423	180	-633	11	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.169	1	Yes	0.764	0.218	0.99	Yes	1.00	**4.85**
		$U_{34} - L_{34}$			-----	-770.78	-241	250	-485	522	554	315	-1001	-74	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.229	1	Yes	0.721	0.230	0.96	Yes	1.00	**5.43**
		$U_{35} - L_{35}$			-----	-694.33	-263	274	-530	575	632	362	-1117	-197	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.223	1	Yes	0.744	0.244	0.99	Yes	1.00	**5.97**
		$U_{36} - L_{36}$			-----	-471.49	-151	168	-330	359	559	265	-1148	-158	-----	-----	-----	-----	-----	-----	-----	-----	0.684	0.305	0.99	Yes	0.679	0.314	1.00	Yes	1.00	**5.52**
		$U_{37} - L_{37}$			-----	-178.70	-69	81	-207	245	466	131	-1130	-175	-----	-----	-----	-----	-----	-----	-----	-----	0.404	0.591	1	Yes	0.378	0.313	0.70	Yes	1.00	**9.92**
		$U_{38} - L_{38}$			176.69	-89.77	131	-136	-121	133	-1749	-623	478	144	0.318	0.680	1.00	Yes	0.175	0.374	0.55	Yes	0.202	0.474	0.68	Yes	0.190	0.174	0.37	Yes	1.00	**8.49**
		$U_{39} - L_{39}$			70.75	-294.62	192	-216	-63	58	-854	-249	521	154	0.127	0.524	0.66	Yes	0.070	0.288	0.36	Yes	0.666	0.331	1	Yes	0.623	0.276	0.90	Yes	1.00	**6.59**
		$U_{40} - L_{40}$			-----	-327.49	216	-222	24	-33	-191	-59	590	168	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.254	1	Yes	0.693	0.284	0.98	Yes	1.00	**4.48**
		$U_{41} - L_{41}$			-----	-463.79	232	-246	80	-88	59	52	570	188	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.209	1	Yes	0.727	0.224	0.96	Yes	1.00	**3.67**
		$U_{42} - L_{42}$			-----	-577.85	493	-501	157	-166	57	95	665	169	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.171	0.95	Yes	0.736	0.256	1.00	Yes	1.00	**4.73**
		$U_{43} - L_{43}$			-----	-708.38	521	-548	175	-194	359	156	635	186	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.155	0.97	Yes	0.759	0.233	1.00	Yes	1.00	**5.67**
		$U_{44} - L_{44}$			-----	-649.96	488	-601	240	-307	327	55	746	126	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.215	1	Yes	0.697	0.255	0.96	Yes	1.00	**4.46**
	Structure 4	$U_0 - L_0$			-----	-586.36	-134	236	-238	401	114	15	-658	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.222	1	Yes	0.682	0.186	0.87	Yes	1.00	**2.87**
		$U_1 - L_1$			-----	-649.08	-207	206	-516	507	618	142	-471	-42	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.162	0.98	Yes	0.755	0.240	1.00	Yes	1.00	**4.60**
		$U_2 - L_2$			-----	-544.98	-159	170	-377	404	660	306	-490	106	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.193	1	Yes	0.758	0.229	0.99	Yes	1.00	**4.05**
		$U_3 - L_3$			-----	-409.50	-70	85	-187	209	567	271	-384	97	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.232	1	Yes	0.706	0.212	0.92	Yes	1.00	**3.23**
		$U_4 - L_4$			-----	-229.68	-46	53	-122	139	585	231	-1993	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.518	0.480	1	Yes	0.486	0.177	0.67	Yes	1.00	**3.24**
		$U_5 - L_5$			52.38	-180.27	58	-33	-118	142	-1503	-1114	-1120	-47	0.094	0.616	0.72	Yes	0.052	0.339	0.40	Yes	0.404	0.586	1	Yes	0.381	0.181	0.57	Yes	1.00	**9.62**
		$U_6 - L_6$			-----	-152.53	210	-236	51	-57	-1606	-520	616	187	-----	-----	-----	-----	-----	-----	-----	-----	0.340	0.654	1	Yes	0.323	0.302	0.63	Yes	1.00	**9.34**
		$U_7 - L_7$			-----	-368.89	225	-253	102	-118	-273	-85	543	180	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.229	0.98	Yes	0.707	0.289	1.00	Yes	1.00	**4.59**
		$U_8 - L_8$			-----	-516.10	333	-333	156	-154	-203	35	720	360	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.226	0.98	Yes	0.708	0.285	1.00	Yes	1.00	**5.58**
		$U_9 - L_9$			-----	-598.74	373	-463	182	-227	257	302	1317	789	-----	-----	-----	-----	-----	-----	-----	-----	0.718	0.281	1	Yes	0.697	0.215	0.92	Yes	1.00	**5.28**
		$U_{10} - L_{10}$			-----	-629.30	269	-265	157	-149	699	437	1473	811	-----	-----	-----	-----	-----	-----	-----	-----	0.652	0.343	1	Yes	0.621	0.140	0.77	Yes	1.00	**3.49**
		$U_{11} - L_{11}$			-----	-579.65	351	-402	211	-246	454	254	1126	531	-----	-----	-----	-----	-----	-----	-----	-----	0.691	0.302	1	Yes	0.655	0.223	0.88	Yes	1.00	**2.63**
		$U_{12} - L_{12}$			-----	-1115.19	352	-473	-281	293	1344	399	-1707	-518	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.192	1	Yes	0.773	0.088	0.87	Yes	1.00	**7.17**
		$U_{13} - L_{13}$			-----	-447.59	-154	169	-293	313	533	55	-402	-117	-----	-----	-----	-----	-----	-----	-----	-----	0.748	0.213	0.97	Yes	0.690	0.308	1.00	Yes	1.00	**3.28**
		$U_{14} - L_{14}$			-----	-419.57	-98	92	-160	168	684	225	-1649	-550	-----	-----	-----	-----	-----	-----	-----	-----	0.635	0.359	1	Yes	0.602	0.147	0.75	Yes	1.00	**2.77**
		$U_{15} - L_{15}$			-----	-362.21	-79	86	-164	180	707	242	-99	44	-----	-----	-----	-----	-----	-----	-----	-----	0.655	0.343	1	Yes	0.625	0.183	0.81	Yes	1.00	**4.43**
		$U_{16} - L_{16}$			-----	-197.60	-71	74	-238	244	-815	-45	-755	-353	-----	-----	-----	-----	-----	-----	-----	-----	0.434	0.556	1	Yes	0.418	0.312	0.74	Yes	1.00	**10.94**
		$U_{17} - L_{17}$			192.40	-73.67	52	-64	-191	214	-1315	-608	478	177	0.346	0.654	1.00	Yes	0.190	0.360	0.55	Yes	0.161	0.395	0.56	Yes	0.156	0.273	0.43	Yes	1.00	**11.48**
		$U_{18} - L_{18}$			152.28	-254.87	200	-235	-158	172	-1339	-494	468	147	0.274	0.688	0.97	Yes	0.151	0.379	0.53	Yes	0.557	0.439	1	Yes	0.539	0.301	0.85	Yes	1.00	**12.04**
		$U_{19} - L_{19}$			14.93	-350.31	160	-180	-61	44	63	41	430	229	0.027	0.355	0.39	Yes	0.015	0.195	0.21	Yes	0.765	0.227	1	Yes	0.741	0.230	0.98	Yes	1.00	**7.00**
		$U_{20} - L_{20}$			-----	-302.23	183	-214	67	-74	328	105	621	199	-----	-----	-----	-----	-----	-----	-----	-----	0.675	0.325	1	Yes	0.640	0.273	0.92	Yes	1.00	**3.85**

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Diagonals	Structure 1	$U_0 - L_1$			515.36	-203.09	92	-28	-167	46	-423	-151	493	-72	0.676	0.319	1.00	Yes	0.408	0.176	0.59	Yes	0.347	0.246	0.6	Yes	0.313	0.195	0.51	Yes	1.00	**16.35**
		$U_1 - L_2$			353.85	-138.34	19	-18	-91	-5	450	255	-826	-778	0.636	0.356	1.00	Yes	0.350	0.196	0.55	Yes	0.317	0.319	0.64	Yes	0.293	0.117	0.41	Yes	1.00	**5.72**
		$U_2 - L_3$			-----	-201.28	37	-26	-50	-39	442	224	-1878	-250	-----	-----	-----	-----	-----	-----	-----	-----	0.463	0.535	1	Yes	0.426	0.064	0.49	Yes	1.00	**5.66**
		$U_3 - L_4$			-----	-305.09	61	-7	-9	-57	584	340	-754	-530	-----	-----	-----	-----	-----	-----	-----	-----	0.698	0.299	1	Yes	0.646	0.078	0.73	Yes	1.00	**7.43**
		$U_4 - L_4$			564.64	-----	5	97	-124	46	-110	171	62	-29	0.828	0.166	1.00	Yes	0.455	0.091	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.39**
		$U_4 - L_5$			673.35	-----	12	211	-242	253	-220	91	21	314	0.796	0.201	1.00	Yes	0.438	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.07**
		$U_5 - L_6$			621.53	-----	-37	93	-267	253	-568	38	125	605	0.735	0.262	1.00	Yes	0.404	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.48**
		$U_6 - L_7$			677.63	-----	86	226	-69	266	248	-198	-225	55	0.801	0.197	1.00	Yes	0.441	0.108	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.74**
		$U_8 - L_9$			937.30	-----	31	199	-78	369	604	303	-599	-367	0.749	0.241	1.00	Yes	0.464	0.136	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.59**
		$U_9 - L_{10}$			945.85	-----	-114	137	-291	247	582	265	-878	-567	0.756	0.241	1.00	Yes	0.468	0.137	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.16**
		$U_{10} - L_{11}$			894.21	-----	-71	127	-265	189	282	30	-910	-796	0.755	0.242	1.00	Yes	0.468	0.138	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.40**
		$U_{11} - L_{12}$			720.46	-----	-92	72	-278	63	189	-33	-799	-1038	0.713	0.284	1.00	Yes	0.392	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.53**
		$U_{12} - L_{13}$			421.16	-----	-86	62	-159	94	79	-51	-1739	-473	0.513	0.479	1.00	Yes	0.323	0.279	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.88**
		$U_{13} - L_{14}$			349.58	-----	-32	10	-83	13	188	3	-900	-876	0.629	0.367	1.00	Yes	0.346	0.202	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.85**
		$U_{15} - L_{14}$			314.55	-190.13	31	-51	-124	-37	-343	-185	946	-346	0.566	0.432	1.00	Yes	0.311	0.238	0.55	Yes	0.445	0.460	0.91	Yes	0.402	0.158	0.57	Yes	1.00	**15.16**
		$U_{16} - L_{15}$			389.12	-20.91	-12	-8	-155	87	-298	-124	323	27	0.700	0.291	1.00	Yes	0.385	0.160	0.55	Yes	0.050	0.175	0.23	Yes	0.044	0.198	0.25	Yes	1.00	**9.42**
		$U_{17} - L_{16}$			524.92	-----	-44	21	-148	95	-310	-109	92	-1	0.770	0.222	1.00	Yes	0.423	0.122	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.56**
		$U_{18} - L_{17}$			618.19	-----	-128	86	-338	254	-405	-118	77	55	0.731	0.265	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.18**
		$U_{19} - L_{18}$			690.20	-----	-130	94	-327	247	-458	-206	-96	45	0.748	0.243	1.00	Yes	0.411	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.40**
		$U_{20} - L_{19}$			708.02	-----	-175	141	-368	295	-260	-141	-20	-57	0.767	0.231	1.00	Yes	0.422	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.06**
	Structure 2	$U_0 - L_1$			672.68	-----	-36	90	-368	274	-451	-169	1085	463	0.665	0.333	1.00	Yes	0.366	0.183	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.93**
		$U_1 - L_2$			706.13	-----	-151	107	-382	291	171	-5	-792	-572	0.699	0.296	1.00	Yes	0.384	0.163	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.82**
		$U_2 - L_3$			579.06	-----	-104	76	-310	248	156	-1	-767	-545	0.685	0.314	1.00	Yes	0.377	0.173	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.78**
		$U_3 - L_4$			513.92	-----	-44	19	-166	109	194	29	-757	-483	0.685	0.311	1.00	Yes	0.377	0.171	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.80**
		$U_4 - L_5$			312.25	-76.74	13	-26	-125	72	271	61	-953	-459	0.562	0.436	1.00	Yes	0.309	0.240	0.55	Yes	0.189	0.419	0.61	Yes	0.162	0.160	0.33	Yes	1.00	**5.72**
		$U_5 - L_6$			244.20	-239.88	69	-69	-84	2	404	128	-1415	-498	0.439	0.517	0.96	Yes	0.242	0.284	0.53	Yes	0.566	0.431	1	Yes	0.508	0.107	0.62	Yes	1.00	**8.59**
		$U_6 - L_7$			-----	-298.97	63	-73	-26	-86	349	170	-689	-1015	-----	-----	-----	-----	-----	-----	-----	-----	0.640	0.359	1	Yes	0.573	0.098	0.68	Yes	1.00	**6.49**
		$U_8 - L_7$			537.04	-----	-85	77	-205	109	-270	-67	-33	610	0.685	0.307	1.00	Yes	0.431	0.175	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.42**
		$U_8 - L_9$			717.96	-----	-161	169	-345	235	-256	-63	143	-15	0.778	0.219	1.00	Yes	0.428	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.37**
		$U_{10} - L_9$			811.26	-----	-117	177	-357	256	-135	21	127	148	0.803	0.188	1.00	Yes	0.441	0.103	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.72**
		$U_{11} - L_{10}$			877.48	-----	-120	199	-351	297	-242	68	198	330	0.799	0.194	1.00	Yes	0.440	0.107	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.58**
		$U_{12} - L_{11}$			845.26	-----	-127	176	-342	344	-600	64	-57	253	0.770	0.228	1.00	Yes	0.423	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.34**
		$U_{13} - L_{12}$			728.01	-----	-158	163	-415	381	-530	-7	-241	161	0.720	0.272	1.00	Yes	0.396	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.32**
		$U_{14} - L_{13}$			733.47	-----	24	202	-256	419	510	-142	-132	48	0.726	0.271	1.00	Yes	0.399	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.26**
		$U_{14} - L_{15}$			591.46	-----	8	151	-187	345	568	259	-320	-115	0.699	0.298	1.00	Yes	0.385	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		$U_{15} - L_{16}$			584.13	-----	-155	150	-346	318	601	196	55	-367	0.691	0.305	1.00	Yes	0.380	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.24**
		$U_{16} - L_{17}$			662.06	-----	-111	163	-315	344	591	242	-375	-279	0.717	0.273	1.00	Yes	0.394	0.150	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.00**
		$U_{17} - L_{18}$			620.01	-----	-98	149	-278	276	556	203	-481	-312	0.733	0.258	1.00	Yes	0.403	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.79**
		$U_{18} - L_{19}$			605.03	-----	-71	134	-276	249	468	181	-688	-481	0.715	0.281	1.00	Yes	0.393	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.50**
		$U_{19} - L_{20}$			512.81	-----	-45	62	-182	124	383	171	-700	-897	0.654	0.346	1.00	Yes	0.360	0.199	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.57**
		$U_{20} - L_{21}$			344.65	-----	-16	25	-113	94	413	219	-793	-346	0.620	0.374	1.00	Yes	0.341	0.206	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.02**
		$U_{21} - L_{22}$			275.60	-48.50	13	-3	-96	29	671	528	-1315	-533	0.496	0.504	1.00	Yes	0.273	0.277	0.55	Yes	0.115	0.435	0.55	Yes	0.103	0.123	0.23	Yes	1.00	**11.30**
		$U_{23} - L_{22}$			372.70	-----	2	22	-124	37	-260	48	575	-77	0.670	0.325	1.00	Yes	0.369	0.179	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.78**
		$U_{24} - L_{23}$			418.79	-----	-19	37	-132	104	-219	-6	268	91	0.753	0.246	1.00	Yes	0.414	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.85**
		$U_{25} - L_{24}$			564.49	-----	-43	77	-180	165	-261	-33	129	569	0.720	0.277	1.00	Yes	0.396	0.158	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.06**
		$U_{26} - L_{25}$			661.05	-----	-65	124	-260	293	-225	0	282	249	0.782	0.217	1.00	Yes	0.430	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.40**
		$U_{27} - L_{26}$			626.85	-----	-82	129	-264	305	-430	139	103	269	0.741	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.02**
		$U_{28} - L_{27}$			654.94	-----	-71	128	-279	348	-630	31	-53	218	0.709	0.282	1.00	Yes	0.390	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.33**
		$U_{29} - L_{28}$			580.14	-----	-64	80	-341	321	-632	-77	9	571	0.686	0.308	1.00	Yes	0.377	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.68**
		$U_{30} - L_{29}$			627.45	-51.85	93	-1	-187	351	-320	-292	-111	86	0.742	0.257	1.00	Yes	0.408	0.141	0.55	Yes	0.083	0.164	0.25	Yes	0.072	0.199	0.28	Yes	1.00	**9.00**
		$U_{30} - L_{31}$			729.62	-----	-43	219	-257	434	507	235	-476	-247	0.722	0.277	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.71**
		$U_{31} - L_{32}$			733.37	-----	-225	212	-425	378	472	139	-423	-246	0.726	0.268	1.00	Yes	0.399	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		$U_{32} - L_{33}$			820.45	-----	-151	201	-337	331	451	145	-756	-528	0.747	0.247	1.00	Yes	0.411	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.03**
		$U_{33} - L_{34}$			802.33	-----	-139	181	-316	258	367	103	-943	-661	0.731	0.263	1.00	Yes	0.402	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.98**
		$U_{34} - L_{35}$			723.72	-----	-128	143	-321	223	166	15	-863	-625	0.716	0.278	1.00	Yes	0.394	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.29**
		$U_{35} - L_{36}$			637.91	-----	-155	140	-307	198	185	42	-868	-522	0.691	0.300	1.00	Yes	0.380	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		$U_{36} - L_{37}$			439.09	-----	-81	80	-184	80	225	67	-729	-1304	0.560	0.431	1.00	Yes	0.352	0.250	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.44**
		$U_{38} - L_{37}$			-----	-325.08	60	-69	-66	-68	-291	-118	188	665	-----	-----	-----	-----	-----	-----	-----	-----	0.702	0.290	1	Yes	0.623	0.079	0.71	Yes	1.00	**8.60**
		$U_{39} - L_{38}$			376.16	-210.92	59	-65	-124	41	-365	-80	542	-90	0.677	0.315	1.00	Yes	0.372	0.173	0.55	Yes	0.503	0.312	0.82	Yes	0.446	0.158	0.61	Yes	1.00	**9.03**
		$U_{40} - L_{39}$			393.31	-39.01	2	-16	-139	90	-378	-100	154	39	0.707	0.287	1.00	Yes	0.389	0.158	0.55	Yes	0.093	0.168	0.27	Yes	0.083	0.178	0.27	Yes	1.00	**5.82**
		$U_{41} - L_{40}$			559.35	-----	-51	25	-178	125	-413	-181	7	7	0.746	0.249	1.00	Yes	0.410	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.15**
		$U_{42} - L_{41}$			623.91	-----	-112	83	-329	264	-409	-174	-28	38	0.738	0.260	1.00	Yes	0.406	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		$U_{43} - L_{42}$			768.62	-----	-125	94	-374	308	-388	-200	-92	82	0.760	0.232	1.00	Yes	0.418	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.39**
		$U_{44} - L_{43}$			791.75	-----	-154	146	-406	384	-167	22	55	58	0.783	0.214	1.00	Yes	0.431	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.82**
	Structure 3	$U_0 - L_1$			641.53	-----	-47	87	-355	289	-274	-83	699	421	0.695	0.297	1.00	Yes	0.382	0.163	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.85**
		$U_1 - L_2$			635.22	-----	-159	109	-339	243	160	-42	-797	-537	0.688	0.305	1.00	Yes	0.378	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.82**
		$U_2 - L_3$			564.37	-----	-124	86	-304	241	129	-28	-881	-623	0.667	0.332	1.00	Yes	0.367	0.183	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.16**
		$U_3 - L_4$			460.17	-----	-43	21	-133	73	150	-29	-669	-804	0.675	0.322	1.00	Yes	0.371	0.177	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.73**
		$U_4 - L_5$			118.88	-----	-14	-4	-89	27	186	2	-2289	-200	0.214	0.777	1.00	Yes	0.118	0.427	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.17**
		$U_5 - L_6$			-----	-214.17	23	-110	-27	-65	-1096	-422	-1007	-791	-----	-----	-----	-----	-----	-----	-----	-----	0.502	0.497	1	Yes	0.453	0.141	0.60	Yes	1.00	**6.91**
		$U_7 - L_6$			439.28	-----	-37	17	-96	42	-273	-55	150	-132	0.790	0.201	1.00	Yes	0.435	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.38**
		$U_8 - L_7$			616.35	-----	-84	79	-215	152	-273	-97	276	123	0.751	0.242	1.00	Yes	0.473	0.136	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.28**
		$U_8 - L_9$			825.59	-----	-71	96	-310	126	-219	7	111	247	0.817	0.181	1.00	Yes	0.449	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.75**
		$U_{10} - L_9$			964.42	-----	-47	149	-276	225	-102	92	180	429	0.815	0.184	1.00	Yes	0.504	0.104	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.53**
		$U_{11} - L_{10}$			929.64	-----	-82	106	-281	256	-538	-34	517	996	0.743	0.252	1.00	Yes	0.460	0.144	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.32**
		$U_{12} - L_{11}$			983.16	-----	92	242	-58	325	529	41	-12	293	0.786	0.212	1.00	Yes	0.487	0.120	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.73**
		$U_{13} - L_{12}$			594.85	-----	22	171	-85	295	659	354	-263	-215	0.703	0.288	1.00	Yes	0.387	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.67**
		$U_{13} - L_{14}$			594.87	-----	-97	136	-278	214	723	321	-438	-560	0.703	0.290	1.00	Yes	0.387	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.26**
		$U_{14} - L_{15}$			462.14	-----	-27	163	-185	155	578	272	-1920	-475	0.546	0.453	1.00	Yes	0.301	0.249	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.94**
		$U_{15} - L_{16}$			442.57	-----	-5	95	-71	5	525	289	-1059	-960	0.649	0.343	1.00	Yes	0.357	0.189	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.32**
		$U_{17} - L_{16}$			-----	-344.87	56	-8	-41	-66	-246	5	245	-450	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.209	1	Yes	0.730	0.085	0.82	Yes	1.00	**10.19**
		$U_{18} - L_{17}$			229.54	-349.26	69	-42	-112	-11	-204	-65	283	-120	0.413	0.225	0.64	Yes	0.227	0.124	0.36	Yes	0.804	0.194	1	Yes	0.739	0.143	0.89	Yes	1.00	**13.67**
		$U_{19} - L_{18}$			461.12	-219.85	41	-30	-84	6	-207	-118	109	53	0.829	0.167	1.00	Yes	0.456	0.092	0.55	Yes	0.504	0.163	0.67	Yes	0.465	0.107	0.58	Yes	1.00	**11.76**
		$U_{20} - L_{19}$			639.03	-27.30	-21	-4	-122	68	-47	32	57	45	0.838	0.157	1.00	Yes	0.506	0.086	0.60	Yes	0.047	0.077	0.13	Yes	0.042	0.142	0.19	Yes	1.00	**7.97**

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Artic
(Case I considered in Max. Tension/Compression Load)

North Truss - Upper Chord

Location	Member	Member Forces from STAAD D (kips)	LL_{max} (kips)	LL_{min} (kips)	Pedestrian $Load_{MAX}$	Pedestrian $Load_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL_{MAX}	Lane Reduction and Impact LL_{MIN}	Impact & Pedestrian $Load_{MAX}$	Impact & Pedestrian $Load_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A_{deduct} (in^2) **	A_{gross} (in^2)	A_{net} (in^2)	$C_{Nominal}$ (kips)	Member Capacity in Compression: C_c	L (feet)	r_{min} (in)	KL/r_{min} ***	F_{crit} **** (ksi)	$C_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Structure 1	U_1 - U_2	-71.64	19.14	-54.01			0.90	1.00	17.23	-48.60	0.00	0.00	Vehicle	Vehicle	-----	-198.44	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	6.09	10.16
	U_1 - U_3	-90.83	38.59	-95.13			0.90	1.00	34.73	-85.62	0.00	0.00	Vehicle	Vehicle	-----	-303.58	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	3.33	5.54
	U_3 - U_5	-61.13	57.14	-119.49			0.90	1.00	51.43	-107.54	0.00	0.00	Vehicle	Vehicle	31.96	-312.48	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	8.54	14.24	2.81	4.69
	U_5 - U_6	10.71	74.63	-124.53			0.90	1.00	67.17	-112.07	0.00	0.00	Vehicle	Vehicle	159.44	-228.91	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	5.90	9.83	3.08	5.14
	U_6 - U_8	12.86	75.02	-124.00			0.90	1.00	67.52	-111.60	0.00	0.00	Vehicle	Vehicle	163.01	-225.07	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	5.85	9.75	3.11	5.18
	U_8 - U_9	121.37	6.73	-35.30			0.90	1.00	6.06	-31.77	0.00	0.00	Vehicle	Vehicle	170.91	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	54.46	90.77	-----	-----
	U_1 - U_7	249.49	95.35	-25.19			0.90	1.00	85.81	-22.67	0.00	0.00	Vehicle	Vehicle	510.27	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	3.88	6.47	-----	-----
	U_7 - U_8	376.92	127.37	0.00			0.90	1.00	114.63	0.00	0.00	0.00	Vehicle	Vehicle	738.37	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	3.84	6.40	-----	-----
	U_8 - U_9	319.74	6.35	42.71			0.90	1.00	38.44	5.72	0.00	0.00	Vehicle	Vehicle	498.94	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	9.66	16.11	-----	-----
	U_9 - U_{10}	128.77	75.07	-16.36			0.90	1.00	67.56	-14.72	0.00	0.00	Vehicle	Vehicle	313.78	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	-----	-----	42.67	-----	-----	10.67	-----	-----	5.15	8.59	-----	-----
	U_{10} - U_{11}	-70.90	68.64	-78.77			0.90	1.00	61.77	-70.89	0.00	0.00	Vehicle	Vehicle	41.67	-245.78	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	7.58	12.63	4.46	7.43
	U_{11} - U_{12}	-252.96	61.59	-136.59			0.90	1.00	55.43	-122.93	0.00	0.00	Vehicle	Vehicle	-----	-595.20	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	2.73	4.55
	U_{12} - U_{13}	-391.95	53.31	-185.79			0.90	1.00	47.98	-167.21	0.00	0.00	Vehicle	Vehicle	-----	-871.82	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	44.60	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	2.68	4.46
	U_{13} - U_{14}	-482.99	44.84	-219.87			0.90	1.00	40.35	-197.88	0.00	0.00	Vehicle	Vehicle	-----	-1056.64	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.73	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.56	4.27
	U_{14} - U_{15}	-454.44	44.67	-220.00			0.90	1.00	40.21	-198.08	0.00	0.00	Vehicle	Vehicle	-----	-1058.78	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.68	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.55	4.26
	U_{15} - U_{16}	-502.02	20.09	-207.35			0.90	1.00	18.08	-186.62	0.00	0.00	Vehicle	Vehicle	-----	-1056.96	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.72	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.65	4.42
	U_{16} - U_{17}	-467.99	12.95	-154.27			0.90	1.00	11.66	-138.84	0.00	0.00	Vehicle	Vehicle	-----	-909.20	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.71	6.19
	U_{17} - U_{18}	-368.86	-130.36	-36.77			0.90	1.00	-33.10	-117.32	0.00	0.00	Vehicle	Vehicle	-----	-733.71	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	44.92	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	3.08	5.13
	U_{18} - U_{19}	-251.56	-79.56	7.65			0.90	1.00	6.88	-71.61	0.00	0.00	Vehicle	Vehicle	-----	-482.17	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	3.57	5.95
	U_{19} - U_{20}	-117.89	-28.42	-16.68			0.90	1.00	-15.01	-25.58	0.00	0.00	Vehicle	Vehicle	-----	-208.68	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	13.13	21.88
Structure 2	U_1 - U_4	-118.23	8.76	-46.42			0.90	1.00	7.88	-41.77	0.00	0.00	Vehicle	Vehicle	-----	-244.21	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	7.60	12.67
	U_1 - U_2	-239.56	20.07	-97.89			0.90	1.00	18.06	-88.10	0.00	0.00	Vehicle	Vehicle	-----	-502.32	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.76	6.26
	U_2 - U_3	-350.44	33.38	-149.00			0.90	1.00	30.04	-134.10	0.00	0.00	Vehicle	Vehicle	-----	-746.12	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.69	4.00	0.69	16.00	99.35	272.00	30.22	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.25	5.42
	U_3 - U_4	-449.15	31.53	-199.07			0.90	1.00	28.38	-179.16	0.00	0.00	Vehicle	Vehicle	-----	-972.07	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.99	4.98
	U_4 - U_5	-483.26	60.46	-206.38			0.90	1.00	59.25	-212.74	0.00	0.00	Vehicle	Vehicle	-----	-1089.17	15.19	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.83	4.72
	U_5 - U_6	-485.85	82.93	-264.95			0.90	1.00	74.63	-238.46	0.00	0.00	Vehicle	Vehicle	-----	-1148.26	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.33	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.52	4.20
	U_6 - U_7	-428.85	97.82	-270.06			0.90	1.00	88.04	-243.05	0.00	0.00	Vehicle	Vehicle	-----	-1084.12	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	43.32	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.25	3.75
	U_7 - U_8	-428.37	98.05	-269.78			0.90	1.00	88.24	-242.80	0.00	0.00	Vehicle	Vehicle	-----	-1082.95	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	43.34	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.26	3.76
	U_8 - U_9	-335.42	111.96	-241.14			0.90	1.00	100.76	-217.02	0.00	0.00	Vehicle	Vehicle	-----	-906.26	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	43.41	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	2.19	3.64
	U_9 - U_{10}	-200.29	120.61	-112.80			0.90	1.00	108.55	-101.52	0.00	0.00	Vehicle	Vehicle	-----	-480.33	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	4.05	6.76
	U_{10} - U_{11}	-52.14	127.55	-133.73			0.90	1.00	114.80	-120.36	0.00	0.00	Vehicle	Vehicle	180.94	-328.55	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	5.03	8.39	3.58	5.96
	U_{11} - U_{12}	107.02	62.22	-51.71			0.90	1.00	56.00	-46.54	0.00	0.00	Vehicle	Vehicle	260.46	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	8.61	14.35	-----	-----
	U_{12} - U_{13}	259.33	124.99	-7.90			0.90	1.00	112.49	-7.11	0.00	0.00	Vehicle	Vehicle	580.86	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	4.69	7.82	-----	-----
	U_{13} - U_{14}	391.98	177.13	0.00			0.90	1.00	159.41	0.00	0.00	0.00	Vehicle	Vehicle	854.97	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.41	7.35	-----	-----
	U_{14} - U_{15}	439.40	4.52	186.58			0.90	1.00	167.92	-2.26	0.00	0.00	Vehicle	Vehicle	935.65	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.02	6.70	-----	-----
	U_{15} - U_{16}	369.66	100.19	27.17			0.90	1.00	90.17	24.45	0.00	0.00	Vehicle	Vehicle	675.94	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	6.01	10.01	-----	-----
	U_{16} - U_{17}	271.39	103.56	3.89			0.90	1.00	93.21	3.50	0.00	0.00	Vehicle	Vehicle	554.76	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	4.97	8.29	-----	-----
	U_{17} - U_{18}	171.75	107.57	25.82			0.90	1.00	96.81	23.24	0.00	0.00	Vehicle	Vehicle	433.03	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	3.68	6.14	-----	-----
	U_{18} - U_{19}	72.78	110.26	-93.80			0.90	1.00	99.24	-84.42	0.00	0.00	Vehicle	Vehicle	309.63	-88.30	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	4.19	6.99	5.12	8.53
	U_{19} - U_{20}	-8.11	113.54	-140.17			0.90	1.00	102.18	-126.15	0.00	0.00	Vehicle	Vehicle	210.85	-283.87	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	4.86	8.11	3.26	5.43
	U_{20} - U_{21}	-60.13	114.76	-177.12			0.90	1.00	103.28	-159.41	0.00	0.00	Vehicle	Vehicle	145.61	-423.54	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.11	10.18	2.92	4.87
	U_{21} - U_{22}	-82.18	115.54	-200.80			0.90	1.00	103.98	-180.72	0.00	0.00	Vehicle	Vehicle	118.45	-498.41	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.20	10.33	2.51	4.18
	U_{22} - U_{23}	-82.40	115.64	-200.83			0.90	1.00	104.08	-180.75	0.00	0.00	Vehicle	Vehicle	118.38	-498.75	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.19	10.32	2.50	4.17
	U_{23} - U_{24}	-65.94	114.04	-86.15			0.90	1.00	102.64	-77.53	0.00	0.00	Vehicle	Vehicle	136.65	-253.71	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.18	10.30	5.97	9.94
	U_{24} - U_{25}	-115.20	111.83	-104.02			0.90	1.00	100.65	-93.61	0.00	0.00	Vehicle	Vehicle	194.72	-226.18	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	5.00	8.33	4.33	7.21
	U_{25} - U_{26}	55.02	107.25	-27.92			0.90	1.00	96.53	-25.13	0.00	0.00	Vehicle	Vehicle	280.67	-----	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	4.42	7.37	-----	-----
	U_{26} - U_{27}	136.02	18.11	-22.45			0.90	1.00	16.30	-20.20	0.00	0.00	Vehicle	Vehicle	212.14	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	23.20	38.66	-----	-----
	U_{27} - U_{28}	216.87	82.52	-13.57			0.90	1.00	74.27	-12.21	0.00	0.00	Vehicle	Vehicle	442.85	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	6.68	11.14	-----	-----
	U_{28} - U_{29}	293.76	142.51	18.46			0.90	1.00	128.26	16.62	0.00	0.00	Vehicle	Vehicle	659.78	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	4.58	7.63	-----	-----
	U_{29} - U_{30}	358.11	192.32	0.00			0.90	1.00	173.09	0.00	0.00	0.00	Vehicle	Vehicle	840.57	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.18	6.97	-----	-----
	U_{30} - U_{31}	339.33	33.80	194.18			0.90	1.00	174.76	30.42	0.00	0.00	Vehicle	Vehicle	819.78	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.21	7.01	-----	-----
	U_{31} - U_{32}	251.17	129.18	3.07			0.90	1.00	116.26	2.77	0.00	0.00	Vehicle	Vehicle	578.42	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Structure 1	L_0 - L_1	4.85	-3.22	-1.15			0.90	1.00	-1.03	-2.90	0.00	0.00	Vehicle	Vehicle	4.07	-----	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	-----	-----	-----	-----
	L_1 - L_2	74.27	-22.79	53.09			0.90	1.00	47.78	-20.51	0.00	0.00	Vehicle	Vehicle	200.07	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**5.38**	**8.96**	-----	-----
	L_2 - L_3	97.77	-42.61	90.46			0.90	1.00	81.41	-38.35	0.00	0.00	Vehicle	Vehicle	303.49	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**4.21**	**7.01**	-----	-----
	L_3 - L_4	66.93	-61.06	114.46			0.90	1.00	103.02	-54.95	0.00	0.00	Vehicle	Vehicle	310.21	-32.05	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	**3.50**	**5.84**	**6.88**	**11.46**
	L_4 - L_5	-108.46	-15.63	34.86			0.90	1.00	31.37	-14.07	0.00	0.00	Vehicle	Vehicle	-----	-171.48	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**16.71**	**27.85**
	L_5 - L_6	-237.28	-76.48	24.91			0.90	1.00	22.42	-68.83	0.00	0.00	Vehicle	Vehicle	-----	-457.61	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	45.00	Pass	5.42	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.68**	**6.13**
	L_6 - L_7	-362.27	-35.24	-105.00			0.90	1.00	-31.72	-94.50	0.00	0.00	Vehicle	Vehicle	-----	-675.69	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.70**	**6.17**
	L_7 - L_8	-478.66	-191.14	0.00			0.90	1.00	0.00	-172.02	0.00	0.00	Vehicle	Vehicle	-----	-994.97	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	42.87	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**2.51**	**4.19**
	L_8 - L_9	-477.02	-26.43	-116.69			0.90	1.00	-23.78	-105.02	0.00	0.00	Vehicle	Vehicle	-----	-847.67	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**4.13**	**6.88**
	L_9 - L_{10}	-301.43	-75.86	-62.68			0.90	1.00	-56.41	-68.27	0.00	0.00	Vehicle	Vehicle	-----	-539.78	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**5.66**	**9.43**
	L_{10} - L_{11}	-104.46	-68.21	-11.54			0.90	1.00	-10.39	-61.39	0.00	0.00	Vehicle	Vehicle	-----	-268.80	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**3.87**	**6.45**
	L_{11} - L_{12}	97.11	-61.48	51.41			0.90	1.00	46.27	-55.33	0.00	0.00	Vehicle	Vehicle	226.49	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	**6.44**	**10.74**	-----	-----
	L_{12} - L_{13}	268.74	-53.54	101.35			0.90	1.00	91.22	-48.18	0.00	0.00	Vehicle	Vehicle	547.00	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.64**	**7.74**	-----	-----
	L_{13} - L_{14}	405.66	-45.30	150.28			0.90	1.00	135.25	-40.77	0.00	0.00	Vehicle	Vehicle	820.39	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.00**	**6.67**	-----	-----
	L_{14} - L_{15}	502.77	-24.92	164.32			0.90	1.00	147.89	-22.43	0.00	0.00	Vehicle	Vehicle	974.03	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.35**	**7.25**	-----	-----
	L_{15} - L_{16}	469.25	-20.70	136.31			0.90	1.00	122.68	-18.63	0.00	0.00	Vehicle	Vehicle	875.82	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.41**	**9.01**	-----	-----
	L_{16} - L_{17}	365.43	80.90	-5.21			0.90	1.00	72.81	-4.69	0.00	0.00	Vehicle	Vehicle	632.81	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.01**	**11.69**	-----	-----
	L_{17} - L_{18}	248.67	30.00	43.19			0.90	1.00	38.87	27.00	0.00	0.00	Vehicle	Vehicle	407.49	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	**9.80**	**16.33**	-----	-----
	L_{18} - L_{19}	112.99	-25.19	9.44			0.90	1.00	8.49	-22.67	0.00	0.00	Vehicle	Vehicle	165.28	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**27.53**	**45.88**	-----	-----
	L_{19} - L_{20}	-14.26	-71.00	14.11			0.90	1.00	12.70	-63.90	0.00	0.00	Vehicle	Vehicle	8.98	-156.99	1.95	19.80	17.8500	653.40	131.71	10.8073	5.6265	17.41	32.71	-550.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	**24.42**	**40.71**	**3.84**	**6.40**
Structure 2	L_0 - L_1	15.26	-0.37	-10.38			0.90	1.00	-0.33	-9.34	0.00	0.00	Vehicle	Vehicle	19.12	-0.40	1.88	24.95	23.0700	823.35	131.71	10.8828	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	45.00	Pass	6.32	12.00	Pass	6.32	12.00	Pass	-----	-----	**35.35**	**58.92**
	L_1 - L_2	136.12	-9.47	37.45			0.90	1.00	33.70	-8.52	0.00	0.00	Vehicle	Vehicle	249.98	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**8.85**	**14.75**	-----	-----
	L_2 - L_3	262.92	-19.34	79.30			0.90	1.00	71.37	-17.41	0.00	0.00	Vehicle	Vehicle	496.43	-----	6.20	38.45	32.2500	1268.85	131.71	10.7370	6.1675	15.67	32.77	-1070.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	**6.00**	**9.99**	-----	-----
	L_3 - L_4	373.32	-21.67	130.43			0.90	1.00	117.39	-19.50	0.00	0.00	Vehicle	Vehicle	739.66	-----	9.45	51.58	42.1250	1701.98	131.71	10.7370	5.7558	16.79	32.73	-1434.93	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	**4.78**	**7.97**	-----	-----
	L_4 - L_5	456.80	48.82	178.23			0.90	1.00	160.41	43.94	0.00	0.00	Vehicle	Vehicle	941.39	-----	11.08	65.05	54.1000	2145.00	131.71	10.6406	5.6658	16.91	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.46**	**7.44**	-----	-----
	L_5 - L_6	489.63	-65.09	215.38			0.90	1.00	193.84	-58.58	0.00	0.00	Vehicle	Vehicle	1056.50	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.03**	**6.72**	-----	-----
	L_6 - L_7	479.27	-82.19	242.62			0.90	1.00	218.36	-73.97	0.00	0.00	Vehicle	Vehicle	1096.16	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	**3.68**	**6.13**	-----	-----
	L_7 - L_8	330.30	-110.63	219.36			0.90	1.00	197.42	-99.57	0.00	0.00	Vehicle	Vehicle	857.14	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	**3.07**	**5.12**	-----	-----
	L_8 - L_9	189.19	-119.51	106.32			0.90	1.00	95.69	-107.56	0.00	0.00	Vehicle	Vehicle	453.27	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	**5.71**	**9.52**	-----	-----
	L_9 - L_{10}	39.95	-126.61	83.11			0.90	1.00	74.80	-113.95	0.00	0.00	Vehicle	Vehicle	214.00	-194.95	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	**6.59**	**10.99**	**4.04**	**6.74**
	L_{10} - L_{11}	-127.23	-89.26	0.00			0.90	1.00	0.00	-80.33	0.00	0.00	Vehicle	Vehicle	-----	-339.45	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.76	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.91**	**6.51**
	L_{11} - L_{12}	-282.51	-153.48	27.90			0.90	1.00	25.11	-138.14	0.00	0.00	Vehicle	Vehicle	-----	-666.56	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.82**	**4.69**
	L_{12} - L_{13}	-426.62	5.25	-211.71			0.90	1.00	4.72	-190.54	0.00	0.00	Vehicle	Vehicle	-----	-967.44	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	44.74	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.67**	**4.45**
	L_{13} - L_{14}	-536.34	-254.50	0.00			0.90	1.00	0.00	-229.05	0.00	0.00	Vehicle	Vehicle	-----	-1193.52	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.92	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.56**	**4.27**
	L_{14} - L_{15}	-537.64	-45.85	-256.54			0.90	1.00	-41.26	-230.88	0.00	0.00	Vehicle	Vehicle	-----	-1199.19	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.81	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.54**	**4.23**
	L_{15} - L_{16}	-475.53	-24.80	-66.64			0.90	1.00	-22.32	-59.98	0.00	0.00	Vehicle	Vehicle	-----	-748.13	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.50**	**5.84**
	L_{16} - L_{17}	-384.21	-85.67	-82.33			0.90	1.00	-74.10	-77.10	0.00	0.00	Vehicle	Vehicle	-----	-666.52	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**5.16**	**8.60**
	L_{17} - L_{18}	-281.70	-88.90	-36.06			0.90	1.00	-32.45	-80.01	0.00	0.00	Vehicle	Vehicle	-----	-539.56	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.34**	**5.57**
	L_{18} - L_{19}	-174.99	-84.08	3.94			0.90	1.00	3.55	-75.68	0.00	0.00	Vehicle	Vehicle	-----	-391.45	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.16**	**5.27**
	L_{19} - L_{20}	-76.34	-86.65	54.07			0.90	1.00	48.66	-77.99	0.00	0.00	Vehicle	Vehicle	6.19	-268.22	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**9.31**	**15.52**	**3.83**	**6.38**
	L_{20} - L_{21}	4.59	-81.88	90.86			0.90	1.00	81.77	-73.69	0.00	0.00	Vehicle	Vehicle	183.15	-153.70	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**7.04**	**11.74**	**6.67**	**11.11**
	L_{21} - L_{22}	56.15	-82.97	127.71			0.90	1.00	114.94	-74.68	0.00	0.00	Vehicle	Vehicle	322.03	-88.81	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**4.74**	**7.90**	**6.99**	**11.66**
	L_{22} - L_{23}	63.16	-73.86	127.01			0.90	1.00	114.31	-66.47	0.00	0.00	Vehicle	Vehicle	329.79	-61.92	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**4.73**	**7.89**	**7.92**	**13.20**
	L_{23} - L_{24}	15.68	-71.50	81.97			0.90	1.00	73.77	-64.35	0.00	0.00	Vehicle	Vehicle	180.22	-119.05	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**7.72**	**12.86**	**7.74**	**12.90**
	L_{24} - L_{25}	-55.90	-59.34	31.82			0.90	1.00	28.64	-53.40	0.00	0.00	Vehicle	Vehicle	-----	-188.38	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**5.82**	**9.69**
	L_{25} - L_{26}	-136.32	-54.71	42.31			0.90	1.00	38.08	-49.23	0.00	0.00	Vehicle	Vehicle	-----	-283.89	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**5.33**	**8.88**
	L_{26} - L_{27}	-217.71	-119.81	0.00			0.90	1.00	0.00	-107.83	0.00	0.00	Vehicle	Vehicle	-----	-516.65	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.84**	**4.73**
	L_{27} - L_{28}	-296.28	-181.13	9.86			0.90	1.00	8.87	-163.02	0.00	0.00	Vehicle	Vehicle	-----	-738.36	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.77**	**4.61**
	L_{28} - L_{29}	-364.24	-10.09	-240.25			0.90	1.00	-9.08	-216.22	0.00	0.00	Vehicle	Vehicle	-----	-942.00	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.53**	**4.21**
	L_{29} - L_{30}	-418.31	-279.79	0.00			0.90	1.00	0.00	-251.81	0.00	0.00	Vehicle	Vehicle	-----	-1089.39	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.61**	**4.36**
	L_{30} - L_{31}	-350.66	0.00	-238.02			0.90	1.00	0.00	-214.22	0.00	0.00	Vehicle	Vehicle	-----	-920.00	11.98	70.85	58.8700	2338.05	131.71	11.1432	5.6285	17.82	32.70	-1969.16	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.26**	**5.43**
	L_{31} - L_{32}	-275.63	-61.87	-79.73			0.90	1.00	-55.68	-71.76	0.00	0.00	Vehicle	Vehicle	-----	-513.80	9.73	59.60	49.8700	1966.80	131.71	11.1432	5.8413	17.17	32.72	-1657.58	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	----

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Verticals																																															
Structure 1	U$_1$ - L$_0$	-77.20	-56.87	19.19			0.90	1.00	17.27	-51.18	0.00	0.00	Vehicle	Vehicle	------	-211.26	1.63	16.85	15.2186	556.00	131.71	9.3438	1.9682	42.73	31.26	-447.73	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.13	5.22
	U$_1$ - L$_1$	-33.88	-47.99	17.16			0.90	1.00	15.45	-43.19	0.00	0.00	Vehicle	Vehicle	------	-137.62	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	4.42	7.37
	U$_2$ - L$_2$	10.41	-35.34	16.07			0.90	1.00	14.46	-31.81	0.00	0.00	Vehicle	Vehicle	44.86	-55.39	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	17.32	28.86	6.84	11.39
	U$_2$ - L$_3$	44.37	-22.47	15.92			0.90	1.00	14.33	-20.22	0.00	0.00	Vehicle	Vehicle	88.73	------	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	------	------	6.56	------	------	------	------	------	------	16.05	26.75	------	------
	U$_3$ - L$_4$	-16.71	0.00	-56.10			0.90	1.00	0.00	-50.49	0.00	0.00	Vehicle	Vehicle	------	-131.11	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.96	6.60
	U$_4$ - L$_5$	-109.52	2.48	-72.68			0.90	1.00	-2.23	-65.41	0.00	0.00	Vehicle	Vehicle	------	-284.09	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	------	------	16.16	------	------	33.25	45.00	Pass	5.37	12.00	Pass	------	------	------	------	------	2.90	4.83
	U$_4$ - L$_6$	-143.61	-0.99	-80.69			0.90	1.00	-0.89	-72.62	0.00	0.00	Vehicle	Vehicle	------	-344.03	3.13	24.86	21.7294	820.36	131.71	9.9479	2.0895	42.85	31.25	-660.40	16.00	0.44	10.00	0.56	------	------	16.00	------	------	36.57	45.00	Pass	8.89	12.00	Pass	------	------	------	------	------	3.01	5.02
	U$_5$ - L$_7$	-142.76	1.97	-83.05			0.90	1.00	1.77	-74.75	0.00	0.00	Vehicle	Vehicle	------	-347.54	2.88	23.11	20.2294	762.61	131.71	11.7292	2.0414	51.71	30.46	-598.26	16.25	0.44	10.00	0.50	------	------	16.25	------	------	37.14	45.00	Pass	10.00	12.00	Pass	------	------	------	------	------	2.55	4.25
	U$_6$ - L$_8$	-391.96	-75.83	-96.14			0.90	1.00	-68.24	-86.52	0.00	0.00	Vehicle	Vehicle	------	-697.01	3.28	51.42	48.1423	1696.94	131.71	16.6563	4.0363	37.14	31.69	-1385.05	15.25	0.82	15.64	1.31	------	------	15.25	------	------	18.60	45.00	Pass	5.96	12.00	Pass	------	------	------	------	------	4.67	7.78
	U$_7$ - L$_9$	-223.26	-87.75	7.87			0.90	1.00	7.08	-78.97	0.00	0.00	Vehicle	Vehicle	------	-461.34	3.50	31.56	28.0625	1041.56	131.71	12.1563	2.5582	42.77	31.26	-838.65	16.25	0.50	12.00	0.63	------	------	16.25	------	------	32.50	45.00	Pass	9.60	12.00	Pass	------	------	------	------	------	3.21	5.34
	U$_8$ - L$_{10}$	-225.85	-83.56	3.45			0.90	1.00	3.11	-75.20	0.00	0.00	Vehicle	Vehicle	------	-456.55	2.76	36.13	33.3715	1192.34	131.71	10.7083	2.3777	40.53	31.44	-965.49	16.16	0.83	11.50	0.80	------	------	16.16	------	------	19.50	45.00	Pass	7.23	12.00	Pass	------	------	------	------	------	4.12	6.87
	U$_9$ - L$_{11}$	-198.80	-86.81	4.27			0.90	1.00	3.84	-78.13	0.00	0.00	Vehicle	Vehicle	------	-427.71	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.40	5.66
	U$_{10}$ - L$_{12}$	-154.81	-77.40	1.62			0.90	1.00	1.46	-69.66	0.00	0.00	Vehicle	Vehicle	------	-352.18	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	------	------	16.25	------	------	32.50	45.00	Pass	8.89	12.00	Pass	------	------	------	------	------	3.25	5.42
	U$_{11}$ - L$_{13}$	-109.06	-65.86	0.00			0.90	1.00	0.00	-59.27	0.00	0.00	Vehicle	Vehicle	------	-270.19	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	------	2.75	4.58
	U$_{12}$ - L$_{14}$	-12.31	-51.88	0.00			0.90	1.00	0.00	-46.69	0.00	0.00	Vehicle	Vehicle	------	-117.16	0.00	16.85	16.8486	556.00	131.71	9.2605	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	4.27	7.12
	U$_{13}$ - L$_{15}$	-5.62	11.47	-34.04			0.90	1.00	10.32	-30.64	0.00	0.00	Vehicle	Vehicle	15.07	-73.68	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	25.18	41.97	6.61	11.02
	U$_{14}$ - L$_{16}$	-51.73	11.41	-54.26			0.90	1.00	10.27	-48.83	0.00	0.00	Vehicle	Vehicle	------	-173.05	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.56	5.93
	U$_{15}$ - L$_{17}$	-127.32	11.84	-75.19			0.90	1.00	10.66	-67.67	0.00	0.00	Vehicle	Vehicle	------	-312.14	0.00	20.66	20.6644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	------	------	16.16	------	------	33.25	45.00	Pass	5.37	12.00	Pass	------	------	------	------	------	2.52	4.20
	U$_{16}$ - L$_{18}$	-159.94	10.90	-83.75			0.90	1.00	9.81	-75.37	0.00	0.00	Vehicle	Vehicle	------	-371.23	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	------	------	16.16	------	------	32.06	45.00	Pass	7.23	12.00	Pass	------	------	------	------	------	2.91	4.85
	U$_{17}$ - L$_{19}$	-191.17	9.20	-85.55			0.90	1.00	8.28	-76.99	0.00	0.00	Vehicle	Vehicle	------	-415.34	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.31	5.52
	U$_{18}$ - L$_{20}$	-212.33	9.19	-98.38			0.90	1.00	8.27	-88.54	0.00	0.00	Vehicle	Vehicle	------	-467.87	0.00	30.63	30.6305	1010.81	131.71	20.3229	2.8427	64.34	29.06	-756.66	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	2.51	4.18
Structure 2	U$_0$ - L$_0$	-206.69	-88.96	16.30			0.90	1.00	14.67	-80.06	0.00	0.00	Vehicle	Vehicle	------	-442.17	0.00	33.27	33.2657	1097.77	131.71	19.1510	2.8573	60.32	29.54	-835.23	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	3.27	5.44
	U$_1$ - L$_1$	-188.76	-85.88	16.71			0.90	1.00	15.04	-77.29	0.00	0.00	Vehicle	Vehicle	------	-412.85	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	3.75	6.26
	U$_1$ - L$_2$	-155.92	-79.89	17.52			0.90	1.00	15.77	-71.90	0.00	0.00	Vehicle	Vehicle	------	-358.47	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	3.49	5.82
	U$_2$ - L$_3$	-134.58	-75.69	19.75			0.90	1.00	17.77	-68.12	0.00	0.00	Vehicle	Vehicle	------	-322.55	0.00	22.73	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	------	------	16.32	------	------	30.85	45.00	Pass	4.91	12.00	Pass	------	------	------	------	------	2.79	4.66
	U$_3$ - L$_4$	-64.49	-57.70	18.69			0.90	1.00	16.82	-51.58	0.00	0.00	Vehicle	Vehicle	------	-196.36	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.17	5.29
	U$_4$ - L$_5$	-19.94	-49.00	20.21			0.90	1.00	18.19	-44.10	0.00	0.00	Vehicle	Vehicle	13.48	-121.47	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	14.77	24.62	4.36	7.27
	U$_5$ - L$_6$	40.08	-25.59	16.67			0.90	1.00	15.01	-23.03	0.00	0.00	Vehicle	Vehicle	84.62	------	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	------	------	6.56	------	------	------	------	------	------	15.50	25.83	------	------
	U$_6$ - L$_7$	-26.04	0.00	-13.03			0.90	1.00	0.00	-11.73	0.00	0.00	Vehicle	Vehicle	------	-59.25	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	16.09	26.82
	U$_7$ - L$_8$	-125.25	0.00	-55.20			0.90	1.00	0.00	-49.68	0.00	0.00	Vehicle	Vehicle	------	-270.46	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	------	------	15.75	------	------	36.00	45.00	Pass	8.89	12.00	Pass	------	------	------	------	------	4.90	8.16
	U$_8$ - L$_9$	-174.53	0.00	-85.45			0.90	1.00	0.00	-76.91	0.00	0.00	Vehicle	Vehicle	------	-393.53	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	4.03	6.72
	U$_9$ - L$_{10}$	-202.66	-1.95	-96.19			0.90	1.00	-1.76	-86.57	0.00	0.00	Vehicle	Vehicle	------	-451.03	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	------	------	16.48	------	------	20.31	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.99	6.65
	U$_{10}$ - L$_{11}$	-229.53	2.75	-109.57			0.90	1.00	2.47	-98.62	0.00	0.00	Vehicle	Vehicle	------	-512.05	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	------	------	16.48	------	------	20.31	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.26	5.43
	U$_{11}$ - L$_{12}$	-250.85	3.84	-116.98			0.90	1.00	3.45	-105.28	0.00	0.00	Vehicle	Vehicle	------	-554.21	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	------	------	16.48	------	------	18.26	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.14	5.23
	U$_{12}$ - L$_{13}$	-223.32	16.46	-107.37			0.90	1.00	14.82	-96.64	0.00	0.00	Vehicle	Vehicle	------	-499.70	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	------	------	16.32	------	------	20.13	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	2.90	4.83
	U$_{13}$ - L$_{14}$	-343.31	40.19	-105.24			0.90	1.00	-36.17	-94.72	0.00	0.00	Vehicle	Vehicle	------	-651.52	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	------	------	15.38	------	------	18.31	45.00	Pass	5.68	12.00	Pass	------	------	------	------	------	4.49	7.48
	U$_{14}$ - L$_{15}$	-123.14	-82.69	20.62			0.90	1.00	18.56	-74.42	0.00	0.00	Vehicle	Vehicle	------	-321.33	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	4.57	7.62
	U$_{15}$ - L$_{16}$	-156.70	-106.72	18.05			0.90	1.00	16.25	-96.05	0.00	0.00	Vehicle	Vehicle	------	-411.81	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	3.18	5.30
	U$_{16}$ - L$_{17}$	-147.91	-107.26	16.07			0.90	1.00	14.46	-96.54	0.00	0.00	Vehicle	Vehicle	------	-401.45	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	2.95	4.92
	U$_{17}$ - L$_{18}$	-142.22	-112.02	8.86			0.90	1.00	7.97	-100.81	0.00	0.00	Vehicle	Vehicle	------	-403.32	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	2.59	4.31
	U$_{18}$ - L$_{19}$	-111.48	-72.84	8.92			0.90	1.00	8.03	-65.55	0.00	0.00	Vehicle	Vehicle	------	-286.96	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	------	------	15.75	------	------	31.50	45.00	Pass	10.00	12.00	Pass	------	------	------	------	------	3.66	6.10
	U$_{19}$ - L$_{20}$	-76.55	-60.11	4.68			0.90	1.00	4.21	-54.10	0.00	0.00	Vehicle	Vehicle	------	-216.73	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	------	3.31	5.52
	U$_{21}$ - L$_{21}$	-44.31	-48.15	0.64			0.90	1.00	0.57	-43.33	0.00	0.00	Vehicle	Vehicle	------	-151.49	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	4.10	6.84
	U$_{22}$ - L$_{22}$	-21.25	-12.28	-12.72			0.90	1.00	-11.05	-11.45	0.00	0.00	Vehicle	Vehicle	------	-52.43	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	16.80	28.00
	U$_{23}$ - L$_{23}$	-39.07	2.20	-38.07			0.90	1.00	1.98	-34.26	0.00	0.00	Vehicle	Vehicle	------	-125.02	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	5.28	8.80
	U$_{24}$ - L$_{24}$	-74.84	7.40	-60.42			0.90	1.00	2.16	-54.38	0.00	0.00	Vehicle	Vehicle	------	-215.12	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	------	3.31	5.52
	U$_{25}$ - L$_{25}$	-103.27	6.10	-76.63			0.90	1.00	5.49	-68.97	0.00	0.00	Vehicle	Vehicle	------	-283.68	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	------	------	15.75	------	------	31.50	45.00	Pass	10.00	12.00	Pass	------	------	------	------	------	3.55	5.92
	U$_{26}$ - L$_{26}$	-120.22	6.18	-111.79			0.90	1.00	5.56	-100.61	0.00	0.00	Vehicle	Vehicle	------	-374.27	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	2.73	4.54
	U$_{27}$ - L$_{27}$	-123.93	10.41	-110.81			0.90	1.00	9.37	-99.73	0.00	0.00	Vehicle	Vehicle	------	-377.19	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.00	5.01
	U$_{28}$ - L$_{28}$	-135.60	11.07	-122.52			0.90	1.00	9.96	-110.26	0.00	0.00	Vehicle	Vehicle	------	-415.18	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	2.89	4.81
	U$_{29}$ - L$_{29}$	-116.87	13.29	-98.98			0.90	1.00	11.96	-89.08	0.00	0.00	Vehicle	Vehicle	------	-344.95	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	3.86	6.44
	U$_{30}$ - L$_{30}$	-262.02	-56.38	-83.62			0.90	1.00	-50.74	-75.26	0.00	0.00	Vehicle	Vehicle	------	-503.68	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	------	------	15.38	------	------	18.31	45.00	Pass	5.68	12.00	Pass	------	------	------	------	------	6.30	10.49
	U$_{31}$ - L$_{31}$	-156.38	-94.14	18.34			0.90	1.00	16.50	-84.73	0.00	0.00	Vehicle	Vehicle	------	-386.86	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	------	------	16.32	------	------	20.13	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	3.78	6.30
	U$_{32}$ - L$_{32}$	-185.51	-118.50	11.91			0.90	1.00	10.72	-106.65	0.00	0.00	Vehicle	Vehicle	------	-472.24	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	------	------	16.48	------	------	18.26	45.00	Pass	6.06	12.00

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capicity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Diagonals	Structure 1	U$_1$ - L$_1$	87.33	74.40	-26.79			0.90	1.00	66.96	-24.11	0.00	0.00	Vehicle	Vehicle	258.61	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	**4.47**	**7.45**	-----	-----
		U$_1$ - L$_2$	23.35	57.71	-26.61			0.90	1.00	51.94	-23.95	0.00	0.00	Vehicle	Vehicle	142.89	-21.55	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**4.67**	**7.78**	**8.99**	**14.98**
		U$_2$ - L$_3$	-37.85	37.47	-4.61			0.90	1.00	33.72	-4.15	0.00	0.00	Vehicle	Vehicle	23.86	-58.20	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**8.28**	**13.81**	**42.87**	**71.46**
		U$_3$ - L$_4$	-92.19	-24.68	11.57			0.90	1.00	10.41	-22.21	0.00	0.00	Vehicle	Vehicle	-----	-167.98	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**----**	**----**	**6.60**	**10.99**
		U$_4$ - L$_4$	143.37	16.69	71.53			0.90	1.00	64.37	15.02	0.00	0.00	Vehicle	Vehicle	325.85	-----	0.00	20.66	20.6644	681.93	131.71	11.6953	2.0011	52.60	30.37	-533.41	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**3.55**	**5.92**	-----	-----
		U$_5$ - L$_5$	177.90	97.51	0.00			0.90	1.00	87.76	0.00	0.00	0.00	Vehicle	Vehicle	421.42	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.23**	**5.39**	-----	-----
		U$_6$ - L$_6$	184.42	100.39	0.00			0.90	1.00	90.35	0.00	0.00	0.00	Vehicle	Vehicle	435.51	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.10**	**5.16**	-----	-----
		U$_7$ - L$_7$	180.02	88.76	0.00			0.90	1.00	79.88	0.00	0.00	0.00	Vehicle	Vehicle	407.10	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.53**	**5.89**	-----	-----
		U$_8$ - L$_8$	268.98	92.37	-9.48			0.90	1.00	83.14	-8.53	0.00	0.00	Vehicle	Vehicle	529.80	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.00**	**8.34**	-----	-----
		U$_9$ - L$_9$	278.85	101.31	-10.29			0.90	1.00	91.17	-9.26	0.00	0.00	Vehicle	Vehicle	560.05	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**4.50**	**7.50**	-----	-----
		U$_{10}$ - L$_{11}$	285.04	109.42	0.00			0.90	1.00	98.48	0.00	0.00	0.00	Vehicle	Vehicle	583.92	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**3.81**	**6.35**	-----	-----
		U$_{11}$ - L$_{12}$	250.60	101.45	0.00			0.90	1.00	91.31	0.00	0.00	0.00	Vehicle	Vehicle	523.61	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.46**	**5.77**	-----	-----
		U$_{12}$ - L$_{13}$	189.65	92.56	0.00			0.90	1.00	83.30	0.00	0.00	0.00	Vehicle	Vehicle	427.04	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**3.18**	**5.30**	-----	-----
		U$_{13}$ - L$_{14}$	123.32	69.90	0.00			0.90	1.00	62.91	0.00	0.00	0.00	Vehicle	Vehicle	296.63	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**2.90**	**4.84**	-----	-----
		U$_{14}$ - L$_{15}$	-24.41	0.00	7.28			0.90	1.00	6.55	0.00	0.00	0.00	Vehicle	Vehicle	-----	-31.73	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	12.00	Pass	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**----**	**----**	-----	-----
		U$_{15}$ - L$_{15}$	48.53	48.15	-15.57			0.90	1.00	43.33	-14.01	0.00	0.00	Vehicle	Vehicle	156.98	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.25**	**8.75**	-----	-----
		U$_{16}$ - L$_{16}$	146.59	83.10	-16.25			0.90	1.00	74.79	-14.63	0.00	0.00	Vehicle	Vehicle	352.62	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**3.03**	**5.05**	-----	-----
		U$_{17}$ - L$_{17}$	182.46	88.95	-13.95			0.90	1.00	80.06	-12.56	0.00	0.00	Vehicle	Vehicle	410.65	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.51**	**5.85**	-----	-----
		U$_{18}$ - L$_{18}$	223.82	93.79	-11.69			0.90	1.00	84.41	-10.52	0.00	0.00	Vehicle	Vehicle	473.87	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.46**	**5.76**	-----	-----
		U$_{20}$ - L$_{19}$	232.72	90.07	-9.72			0.90	1.00	81.06	-8.75	0.00	0.00	Vehicle	Vehicle	478.16	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.53**	**5.89**	-----	-----
	Structure 2	U$_1$ - L$_1$	213.54	89.02	-17.37			0.90	1.00	80.12	-15.63	0.00	0.00	Vehicle	Vehicle	451.19	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.22**	**7.04**	-----	-----
		U$_1$ - L$_2$	200.48	91.14	-20.35			0.90	1.00	82.02	-18.32	0.00	0.00	Vehicle	Vehicle	438.34	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.22**	**7.04**	-----	-----
		U$_2$ - L$_3$	172.81	86.52	-22.57			0.90	1.00	77.86	-20.32	0.00	0.00	Vehicle	Vehicle	393.36	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.68**	**6.14**	-----	-----
		U$_3$ - L$_4$	147.16	83.09	-26.41			0.90	1.00	74.78	-23.77	0.00	0.00	Vehicle	Vehicle	353.34	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**3.45**	**5.75**	-----	-----
		U$_4$ - L$_5$	49.10	63.00	-25.97			0.90	1.00	56.70	-23.37	0.00	0.00	Vehicle	Vehicle	186.68	-----	0.00	16.85	16.8486	556.00	131.71	15.3992	1.9682	70.41	28.23	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.01**	**6.68**	-----	-----
		U$_5$ - L$_6$	2.96	50.86	-27.00			0.90	1.00	45.78	-24.30	0.00	0.00	Vehicle	Vehicle	103.04	-48.80	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	12.00	Pass	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**5.57**	**9.28**	**8.12**	**13.53**
		U$_6$ - L$_7$	-85.74	0.00	-28.28			0.90	1.00	0.00	-25.45	0.00	0.00	Vehicle	Vehicle	-----	-166.61	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	**----**	**----**	**6.45**	**10.75**
		U$_7$ - L$_7$	140.30	44.09	3.95			0.90	1.00	39.68	3.55	0.00	0.00	Vehicle	Vehicle	268.36	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**7.00**	**11.67**	-----	-----
		U$_8$ - L$_8$	204.22	86.53	0.00			0.90	1.00	77.87	0.00	0.00	0.00	Vehicle	Vehicle	434.20	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.90**	**6.50**	-----	-----
		U$_9$ - L$_9$	234.87	103.62	0.00			0.90	1.00	93.26	0.00	0.00	0.00	Vehicle	Vehicle	507.39	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.49**	**5.82**	-----	-----
		U$_{11}$ - L$_{10}$	263.10	120.14	0.00			0.90	1.00	108.12	0.00	0.00	0.00	Vehicle	Vehicle	576.30	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.23**	**5.38**	-----	-----
		U$_{11}$ - L$_{11}$	274.02	127.46	0.00			0.90	1.00	114.71	0.00	0.00	0.00	Vehicle	Vehicle	604.77	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**2.98**	**4.97**	-----	-----
		U$_{13}$ - L$_{12}$	254.94	117.68	-16.78			0.90	1.00	105.91	-15.10	0.00	0.00	Vehicle	Vehicle	560.90	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**2.96**	**4.93**	-----	-----
		U$_{13}$ - L$_{13}$	217.71	93.53	-20.92			0.90	1.00	84.17	-18.83	0.00	0.00	Vehicle	Vehicle	465.39	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.99**	**6.65**	-----	-----
		U$_{15}$ - L$_{15}$	110.05	66.41	-21.18			0.90	1.00	59.77	-19.06	0.00	0.00	Vehicle	Vehicle	272.56	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.43**	**9.05**	-----	-----
		U$_{15}$ - L$_{16}$	132.30	87.25	-23.18			0.90	1.00	78.52	-20.86	0.00	0.00	Vehicle	Vehicle	342.12	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.96**	**6.60**	-----	-----
		U$_{17}$ - L$_{17}$	172.89	112.70	-17.70			0.90	1.00	101.43	-15.93	0.00	0.00	Vehicle	Vehicle	444.53	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.18**	**5.30**	-----	-----
		U$_{17}$ - L$_{18}$	160.19	114.66	-18.54			0.90	1.00	103.19	-16.69	0.00	0.00	Vehicle	Vehicle	431.82	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**2.85**	**4.75**	-----	-----
		U$_{19}$ - L$_{19}$	152.35	71.59	-12.21			0.90	1.00	64.43	-10.99	0.00	0.00	Vehicle	Vehicle	337.66	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.64**	**7.73**	-----	-----
		U$_{20}$ - L$_{20}$	120.69	78.62	-12.46			0.90	1.00	70.76	-11.21	0.00	0.00	Vehicle	Vehicle	310.21	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**4.09**	**6.82**	-----	-----
		U$_{20}$ - L$_{21}$	76.08	64.53	-6.02			0.90	1.00	58.07	-5.42	0.00	0.00	Vehicle	Vehicle	224.73	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**3.63**	**6.05**	-----	-----
		U$_{21}$ - L$_{22}$	31.46	29.65	-5.14			0.90	1.00	26.69	-4.62	0.00	0.00	Vehicle	Vehicle	98.72	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.91**	**14.85**	-----	-----
		U$_{23}$ - L$_{22}$	24.30	25.24	-12.35			0.90	1.00	22.72	-11.12	0.00	0.00	Vehicle	Vehicle	80.81	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**10.65**	**17.76**	-----	-----
		U$_{23}$ - L$_{23}$	72.26	53.28	-3.89			0.90	1.00	47.95	-3.50	0.00	0.00	Vehicle	Vehicle	197.84	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.35	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.45**	**7.41**	-----	-----
		U$_{24}$ - L$_{24}$	112.13	82.52	4.58			0.90	1.00	74.27	4.13	0.00	0.00	Vehicle	Vehicle	306.68	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**3.97**	**6.61**	-----	-----
		U$_{25}$ - L$_{25}$	180.76	98.79	0.00			0.90	1.00	88.91	0.00	0.00	0.00	Vehicle	Vehicle	427.63	-----	0.00	30.63	30.6305	1010.81	131.71	13.7604	2.8427	43.57	31.19	-812.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.03**	**6.71**	-----	-----
		U$_{25}$ - L$_{26}$	162.94	93.85	0.00			0.90	1.00	84.47	0.00	0.00	0.00	Vehicle	Vehicle	394.83	-----	0.00	27.98	27.9777	923.26	131.71	13.3125	2.8289	42.35	31.29	-744.20	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.89**	**6.48**	-----	-----
		U$_{27}$ - L$_{27}$	112.94	49.26	0.00			0.90	1.00	44.33	0.00	0.00	0.00	Vehicle	Vehicle	242.88	-----	3.00	23.77	20.7656	784.26	131.71	13.2708	2.1158	56.45	29.97	-605.39	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**6.64**	**11.06**	-----	-----
		U$_{27}$ - L$_{28}$	-73.86	0.00	-35.42			0.90	1.00	0.00	-31.87	0.00	0.00	Vehicle	Vehicle	-----	-165.08	0.00	18.61	18.6095	614.11	131.71	13.8229	1.9845	62.69	29.26	-462.87	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	**----**	**----**	**5.31**	**8.85**
		U$_{29}$ - L$_{28}$	-4.37	35.29	-26.17			0.90	1.00	31.76	-23.56	0.00	0.00	Vehicle	Vehicle	63.13	-56.72	0.00	16.85	16.8486	556.00	131.71	13.6250	1.9682	62.30	29.31	-419.73	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**8.16**	**13.60**	**8.11**	**13.52**
		U$_{29}$ - L$_{29}$	29.28	58.72	-25.71			0.90	1.00	52.85	-23.14	0.00	0.00	Vehicle	Vehicle	152.57	-12.07	0.00	16.85	16.8486	556.00	131.71	13.8750	1.9682	63.45	29.17	-417.77	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**4.52**	**7.54**	**9.09**	**15.15**
		U$_{31}$ - L$_{30}$	101.12	92.32	-28.26			0.90	1.00	83.08	-25.44	0.00	0.00	Vehicle	Vehicle	311.47	-----	0.00	22.73	22.7330	750.19	131.71	14.1250	2.0170	63.03	29.22	-564.65	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**3.44**	**5.73**	-----	-----
		U$_{31}$ - L$_{31}$	121.87	97.48	-24.74			0.90	1.00	87.74	-22.27	0.00	0.00	Vehicle	Vehicle	348.52	-----	0.00	25.63	25.6315	845.84	131.71	14.4896	2.8057	46.48	30.95	-674.19	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.62**	**6.03**	-----	-----
		U$_{33}$ - L$_{32}$	156.17	108.81	-22.55			0.90	1.00	97.93	-20.29	0.00	0.00	Vehicle	Vehicle	415.21	-----	0.00	30.63	30.6305	1010.81	131.71	15.6875	2.8427	49.67	30.65	-798.10	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.81**	**6.34**	-----	-----
		U$_{33}$ - L$_{33}$	164.27	104.62	-18.93			0.90	1.00	94.16	-17.04	0.00	0.00	Vehicle	Vehicle	417.56	-----	0.00	30.63	30.6305	1010.81	131.71	17.1250	2.8427

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capicity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Upper Chord	Structure 1	U$_0$ - U$_1$	-52.64	15.21	-45.41			0.75	1.00	11.41	-34.06	0.00	0.00	Vehicle	Vehicle	-----	-142.22	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	9.03	15.05
		U$_1$ - U$_2$	-61.57	35.41	-83.14			0.75	1.00	26.56	-62.36	0.00	0.00	Vehicle	Vehicle	-----	-215.15	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	4.85	8.08
		U$_2$ - U$_3$	-26.99	49.46	-95.17			0.75	1.00	37.10	-71.38	0.00	0.00	Vehicle	Vehicle	45.29	-189.74	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	11.29	18.82	4.53	7.54
		U$_3$ - U$_4$	32.92	62.88	-114.09			0.75	1.00	47.16	-85.57	0.00	0.00	Vehicle	Vehicle	144.98	-142.60	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	8.12	13.53	4.19	6.99
		U$_4$ - U$_5$	34.77	61.12	-99.77			0.75	1.00	45.84	-74.83	0.00	0.00	Vehicle	Vehicle	144.53	-116.92	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	8.33	13.88	4.81	8.02
		U$_5$ - U$_6$	124.13	8.55	-69.56			0.75	1.00	6.41	-52.17	0.00	0.00	Vehicle	Vehicle	175.27	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	51.17	85.28	-----	-----
		U$_6$ - U$_7$	223.19	85.18	-30.26			0.75	1.00	63.89	-22.70	0.00	0.00	Vehicle	Vehicle	428.57	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	5.46	9.10	-----	-----
		U$_7$ - U$_8$	331.76	117.65	0.00			0.75	1.00	88.24	0.00	0.00	0.00	Vehicle	Vehicle	622.47	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	5.29	8.82	-----	-----
		U$_8$ - U$_9$	267.61	54.85	43.23			0.75	1.00	41.13	32.42	0.00	0.00	Vehicle	Vehicle	437.02	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	9.79	16.32	-----	-----
		U$_9$ - U$_{10}$	89.12	53.21	-15.33			0.75	1.00	39.91	-11.50	0.00	0.00	Vehicle	Vehicle	202.32	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	-----	-----	42.67	-----	-----	10.67	-----	-----	9.32	15.54	-----	-----
		U$_{10}$ - U$_{11}$	-76.81	47.63	-62.67			0.75	1.00	35.72	-47.00	0.00	0.00	Vehicle	Vehicle	-----	-201.69	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	6.65	11.08
		U$_{11}$ - U$_{12}$	-230.69	41.33	-112.41			0.75	1.00	31.00	-84.31	0.00	0.00	Vehicle	Vehicle	-----	-482.55	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	4.14	6.90
		U$_{12}$ - U$_{13}$	-341.88	38.43	-150.92			0.75	1.00	28.83	-113.19	0.00	0.00	Vehicle	Vehicle	-----	-689.69	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	4.22	7.03
		U$_{13}$ - U$_{14}$	-421.62	31.79	-194.54			0.75	1.00	23.85	-145.90	0.00	0.00	Vehicle	Vehicle	-----	-864.23	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.73	6.21
		U$_{14}$ - U$_{15}$	-422.51	31.65	-194.54			0.75	1.00	23.74	-145.90	0.00	0.00	Vehicle	Vehicle	-----	-865.38	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.72	6.20
		U$_{15}$ - U$_{16}$	-439.94	24.52	-181.89			0.75	1.00	18.39	-136.41	0.00	0.00	Vehicle	Vehicle	-----	-867.49	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.90	6.51
		U$_{16}$ - U$_{17}$	-422.43	18.42	-166.09			0.75	1.00	13.82	-124.57	0.00	0.00	Vehicle	Vehicle	-----	-819.05	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	4.36	7.27
		U$_{17}$ - U$_{18}$	-340.94	-124.24	11.33			0.75	1.00	8.50	-93.18	0.00	0.00	Vehicle	Vehicle	-----	-645.11	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	45.00	Pass	32.00	50.00	Pass	8.00	12.00	Pass	-----	-----	4.06	6.76
		U$_{18}$ - U$_{19}$	-247.15	-78.84	-52.68			0.75	1.00	-39.45	-59.13	0.00	0.00	Vehicle	Vehicle	-----	-449.40	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	4.37	7.28
		U$_{19}$ - U$_{20}$	-131.71	-26.05	2.95			0.75	1.00	2.21	-19.53	0.00	0.00	Vehicle	Vehicle	-----	-213.54	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	16.77	27.94
	Structure 2	U$_0$ - U$_1$	-131.51	11.69	-50.72			0.75	1.00	8.77	-38.04	0.00	0.00	Vehicle	Vehicle	-----	-253.38	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	8.14	13.56
		U$_1$ - U$_2$	-247.03	25.17	-101.35			0.75	1.00	18.88	-76.01	0.00	0.00	Vehicle	Vehicle	-----	-485.63	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.30	7.16
		U$_2$ - U$_3$	-347.15	39.24	-145.22			0.75	1.00	29.43	-108.91	0.00	0.00	Vehicle	Vehicle	-----	-687.27	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.69	4.00	0.69	16.00	95.35	272.00	30.22	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	4.02	6.71
		U$_3$ - U$_4$	-437.07	55.40	-185.42			0.75	1.00	41.55	-139.07	0.00	0.00	Vehicle	Vehicle	-----	-869.49	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.90	6.50
		U$_4$ - U$_5$	-468.70	68.28	-207.63			0.75	1.00	51.21	-155.72	0.00	0.00	Vehicle	Vehicle	-----	-946.71	15.14	69.44	54.2975	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.92	6.54
		U$_5$ - U$_6$	-471.03	81.13	-209.06			0.75	1.00	60.85	-156.79	0.00	0.00	Vehicle	Vehicle	-----	-952.06	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.89	6.48
		U$_6$ - U$_7$	-414.41	90.75	-216.34			0.75	1.00	68.06	-162.26	0.00	0.00	Vehicle	Vehicle	-----	-890.28	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.43	5.71
		U$_7$ - U$_8$	-413.45	90.88	-216.10			0.75	1.00	68.16	-162.07	0.00	0.00	Vehicle	Vehicle	-----	-888.64	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.44	5.73
		U$_8$ - U$_9$	-321.98	94.67	-194.49			0.75	1.00	71.00	-145.86	0.00	0.00	Vehicle	Vehicle	-----	-734.61	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	3.31	5.51
		U$_9$ - U$_{10}$	-182.11	102.89	-164.13			0.75	1.00	77.17	-123.10	0.00	0.00	Vehicle	Vehicle	-----	-503.45	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	3.43	5.72
		U$_{10}$ - U$_{11}$	-32.58	110.15	-113.10			0.75	1.00	82.62	-84.83	0.00	0.00	Vehicle	Vehicle	136.65	-226.14	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	6.85	11.42	5.21	8.69
		U$_{11}$ - U$_{12}$	133.59	63.65	0.00			0.75	1.00	47.74	0.00	0.00	0.00	Vehicle	Vehicle	277.09	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	9.77	16.28	-----	-----
		U$_{12}$ - U$_{13}$	289.99	111.51	115.42			0.75	1.00	86.56	83.63	0.00	0.00	Vehicle	Vehicle	564.53	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	5.89	9.81	-----	-----
		U$_{13}$ - U$_{14}$	434.76	157.25	0.00			0.75	1.00	117.94	0.00	0.00	0.00	Vehicle	Vehicle	820.73	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.75	9.58	-----	-----
		U$_{14}$ - U$_{15}$	474.45	52.61	78.65			0.75	1.00	58.99	39.46	0.00	0.00	Vehicle	Vehicle	744.58	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	11.09	18.48	-----	-----
		U$_{15}$ - U$_{16}$	383.28	63.37	38.82			0.75	1.00	47.53	29.12	0.00	0.00	Vehicle	Vehicle	601.24	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	11.22	18.71	-----	-----
		U$_{16}$ - U$_{17}$	279.57	70.02	-2.30			0.75	1.00	52.51	-1.73	0.00	0.00	Vehicle	Vehicle	477.22	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	8.73	14.56	-----	-----
		U$_{17}$ - U$_{18}$	172.63	76.70	11.59			0.75	1.00	57.53	8.69	0.00	0.00	Vehicle	Vehicle	349.06	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	6.19	10.32	-----	-----
		U$_{18}$ - U$_{19}$	74.36	79.70	-70.44			0.75	1.00	59.77	-52.83	0.00	0.00	Vehicle	Vehicle	226.18	-17.79	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	6.95	11.58	8.20	13.66
		U$_{19}$ - U$_{20}$	-10.01	82.58	-111.09			0.75	1.00	61.93	-83.32	0.00	0.00	Vehicle	Vehicle	121.17	-193.54	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.04	13.41	4.92	8.20
	Structure 3	U$_0$ - U$_1$	-62.06	85.18	-128.97			0.75	1.00	63.88	-96.73	0.00	0.00	Vehicle	Vehicle	57.74	-290.25	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	9.90	16.49	4.81	8.01
		U$_1$ - U$_2$	-88.74	86.25	-159.69			0.75	1.00	64.69	-119.77	0.00	0.00	Vehicle	Vehicle	24.80	-374.86	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	10.02	16.70	3.75	6.25
		U$_2$ - U$_3$	-88.92	82.96	-159.53			0.75	1.00	62.22	-119.65	0.00	0.00	Vehicle	Vehicle	19.23	-374.83	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	10.42	17.36	3.75	6.25
		U$_3$ - U$_4$	-76.67	85.00	-142.74			0.75	1.00	63.75	-107.06	0.00	0.00	Vehicle	Vehicle	38.45	-331.62	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	10.05	16.76	4.26	7.10
		U$_4$ - U$_5$	-37.64	83.82	-123.90			0.75	1.00	62.87	-92.92	0.00	0.00	Vehicle	Vehicle	87.27	-250.27	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.19	13.65	4.23	7.05
		U$_5$ - U$_6$	37.23	80.85	-20.57			0.75	1.00	60.63	-15.43	0.00	0.00	Vehicle	Vehicle	179.77	-----	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	7.21	12.02	-----	-----
		U$_6$ - U$_7$	128.02	11.66	-32.93			0.75	1.00	8.74	-24.70	0.00	0.00	Vehicle	Vehicle	185.36	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	43.80	73.00	-----	-----
		U$_7$ - U$_8$	233.68	70.91	0.00			0.75	1.00	53.18	0.00	0.00	0.00	Vehicle	Vehicle	419.01	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	9.14	15.24	-----	-----
		U$_8$ - U$_9$	337.65	70.34	23.25			0.75	1.00	52.76	17.44	0.00	0.00	Vehicle	Vehicle	553.25	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	10.63	17.72	-----	-----
		U$_9$ - U$_{10}$	437.10	164.35	0.00			0.75	1.00	123.26	0.00	0.00	0.00	Vehicle	Vehicle	835.29	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.49	9.14	-----	-----
		U$_{10}$ - U$_{11}$	420.53	90.48	32.81			0.75	1.00	67.86	24.61	0.00	0.00	Vehicle	Vehicle	693.72	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	10.11	16.86	-----	-----
		U$_{11}$ - U$_{12}$	300.69	97.75	-14.89			0.75	1.00	73.31	-11.17	0.00	0.00	Vehicle	Vehicle	549.74	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL_{max} (kips)	LL_{min} (kips)	Pedestrian $Load_{MAX}$	Pedestrian $Load_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL_{MAX}	Lane Reduction and Impact LL_{MIN}	Impact & Pedestrian $Load_{MAX}$	Impact & Pedestrian $Load_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A_{deduct} (in^2) **	A_{gross} (in^2)	A_{net} (in^2)	$C_{Nominal}$ (kips)	Member Capicity in Compression: C_c	L (feet)	r_{min} (in)	KL/r_{min} ***	F_{crit} **** (ksi)	$C_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Lower Chord	Structure 1	L_0- L_1	8.49	-4.12	3.54			0.75	1.00	2.66	-3.09	0.00	0.00	Vehicle	Vehicle	16.79	-----	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**111.60**	**186.01**	-----	-----
		L_1 - L_2	50.81	-21.04	50.25			0.75	1.00	37.69	-15.78	0.00	0.00	Vehicle	Vehicle	147.71	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.19**	**11.99**	-----	-----
		L_2 - L_3	61.22	-36.20	69.76			0.75	1.00	52.32	-27.15	0.00	0.00	Vehicle	Vehicle	192.94	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**6.97**	**11.61**	-----	-----
		L_3 - L_4	25.70	-50.17	95.35			0.75	1.00	71.51	-37.63	0.00	0.00	Vehicle	Vehicle	188.36	-48.12	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	**5.39**	**8.99**	**9.39**	**15.64**
		L_4 - L_5	-118.45	-16.46	0.00			0.75	1.00	0.00	-12.34	0.00	0.00	Vehicle	Vehicle	-----	-180.73	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**18.57**	**30.94**
		L_5 - L_6	-217.80	-82.47	21.18			0.75	1.00	15.89	-61.85	0.00	0.00	Vehicle	Vehicle	-----	-417.16	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**4.28**	**7.14**
		L_6 - L_7	-320.36	-27.03	-91.56			0.75	1.00	-20.28	-68.67	0.00	0.00	Vehicle	Vehicle	-----	-565.25	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**5.46**	**9.10**
		L_7 - L_8	-417.18	-176.26	0.00			0.75	1.00	0.00	-132.19	0.00	0.00	Vehicle	Vehicle	-----	-828.76	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.55**	**5.92**
		L_8 - L_9	-410.79	-54.98	-99.96			0.75	1.00	-41.24	-74.97	0.00	0.00	Vehicle	Vehicle	-----	-696.46	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**6.31**	**10.52**
		L_9 - L_{10}	-247.75	-55.71	-43.91			0.75	1.00	-32.93	-41.78	0.00	0.00	Vehicle	Vehicle	-----	-412.61	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**10.02**	**16.69**
		L_{10} - L_{11}	-65.21	-54.05	14.50			0.75	1.00	10.88	-40.54	0.00	0.00	Vehicle	Vehicle	-----	-172.60	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**6.44**	**10.74**
		L_{11} - L_{12}	101.88	-48.24	66.83			0.75	1.00	50.12	-36.18	0.00	0.00	Vehicle	Vehicle	241.03	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.89**	**9.82**	-----	-----
		L_{12} - L_{13}	264.09	-43.01	110.13			0.75	1.00	82.60	-32.26	0.00	0.00	Vehicle	Vehicle	522.28	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.16**	**8.60**	-----	-----
		L_{13} - L_{14}	373.73	-35.97	143.01			0.75	1.00	107.26	-26.97	0.00	0.00	Vehicle	Vehicle	718.24	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.23**	**8.71**	-----	-----
		L_{14} - L_{15}	476.34	-22.93	160.49			0.75	1.00	120.37	-17.20	0.00	0.00	Vehicle	Vehicle	880.04	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.47**	**9.12**	-----	-----
		L_{15} - L_{16}	459.97	-16.82	144.97			0.75	1.00	108.73	-12.62	0.00	0.00	Vehicle	Vehicle	833.54	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**6.15**	**10.25**	-----	-----
		L_{16} - L_{17}	381.37	104.34	82.76			0.75	1.00	78.26	62.07	0.00	0.00	Vehicle	Vehicle	665.34	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	**6.40**	**10.67**	-----	-----
		L_{17} - L_{18}	288.98	58.97	-4.61			0.75	1.00	44.22	-3.46	0.00	0.00	Vehicle	Vehicle	471.49	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	**8.06**	**13.44**	-----	-----
		L_{18} - L_{19}	176.20	21.41	-3.12			0.75	1.00	16.06	-2.34	0.00	0.00	Vehicle	Vehicle	263.85	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**12.20**	**20.33**	-----	-----
		L_{19} - L_{20}	69.74	-17.92	-0.31			0.75	1.00	-0.23	-13.44	0.00	0.00	Vehicle	Vehicle	90.16	-----	1.95	19.80	17.8500	653.40	131.71	10.8073	5.6265	17.41	32.71	-550.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	-----	-----	-----	-----
		L_0- L_1	24.59	-2.17	1.46			0.75	1.00	1.10	-1.63	0.00	0.00	Vehicle	Vehicle	34.34	-----	1.88	24.95	23.0700	823.35	131.71	10.8828	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**333.11**	**555.18**	-----	-----
		L_1 - L_2	138.59	-13.38	50.22			0.75	1.00	37.67	-10.04	0.00	0.00	Vehicle	Vehicle	261.78	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**7.88**	**13.14**	-----	-----
		L_2 - L_3	252.83	-27.55	103.19			0.75	1.00	77.39	-20.66	0.00	0.00	Vehicle	Vehicle	496.37	-----	6.20	38.45	32.2500	1268.85	131.71	10.7370	6.1675	15.67	32.77	-1070.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	**5.61**	**9.34**	-----	-----
		L_3 - L_4	352.30	-41.66	147.03			0.75	1.00	110.27	-31.24	0.00	0.00	Vehicle	Vehicle	696.92	-----	9.45	51.58	42.1250	1701.98	131.71	10.7370	5.7558	16.79	32.73	-1434.93	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	**5.21**	**8.68**	-----	-----
		L_4 - L_5	447.17	-57.91	184.93			0.75	1.00	138.70	-43.43	0.00	0.00	Vehicle	Vehicle	881.83	-----	11.00	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.90	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.20**	**8.67**	-----	-----
		L_5 - L_6	477.93	-70.77	206.87			0.75	1.00	155.15	-53.08	0.00	0.00	Vehicle	Vehicle	957.47	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.08**	**8.47**	-----	-----
		L_6 - L_7	482.68	-83.60	193.09			0.75	1.00	144.82	-62.70	0.00	0.00	Vehicle	Vehicle	941.25	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	**5.53**	**9.22**	-----	-----
		L_7 - L_8	336.61	-101.73	179.56			0.75	1.00	134.67	-76.29	0.00	0.00	Vehicle	Vehicle	729.38	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	**4.48**	**7.46**	-----	-----
		L_8 - L_9	196.05	-102.93	151.50			0.75	1.00	113.62	-77.20	0.00	0.00	Vehicle	Vehicle	501.05	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	**4.77**	**7.95**	-----	-----
		L_9 - L_{10}	45.60	-110.36	100.14			0.75	1.00	75.10	-82.77	0.00	0.00	Vehicle	Vehicle	222.00	-120.06	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	**6.52**	**10.87**	**5.61**	**9.34**
		L_{10} - L_{11}	-126.26	-113.66	0.00			0.75	1.00	0.00	-85.25	0.00	0.00	Vehicle	Vehicle	-----	-348.83	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.78	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.69**	**6.15**
		L_{11} - L_{12}	-284.87	-133.00	0.00			0.75	1.00	0.00	-99.75	0.00	0.00	Vehicle	Vehicle	-----	-586.45	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.88**	**6.47**
		L_{12} - L_{13}	-433.79	-13.57	-168.46			0.75	1.00	-10.18	-126.34	0.00	0.00	Vehicle	Vehicle	-----	-837.67	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**4.00**	**6.66**
		L_{13} - L_{14}	-552.65	-218.36	0.00			0.75	1.00	0.00	-163.77	0.00	0.00	Vehicle	Vehicle	-----	-1073.28	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.53**	**5.88**
		L_{14} - L_{15}	-573.48	0.00	-212.19			0.75	1.00	0.00	-159.14	0.00	0.00	Vehicle	Vehicle	-----	-1090.33	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.55**	**5.92**
		L_{15} - L_{16}	-492.94	-53.79	-50.11			0.75	1.00	-37.58	-40.34	0.00	0.00	Vehicle	Vehicle	-----	-728.23	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**11.64**	**19.40**
		L_{16} - L_{17}	-395.30	-68.58	-40.88			0.75	1.00	-30.66	-51.43	0.00	0.00	Vehicle	Vehicle	-----	-625.33	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**7.61**	**12.68**
		L_{17} - L_{18}	-288.04	-75.11	-85.79			0.75	1.00	-56.33	-64.34	0.00	0.00	Vehicle	Vehicle	-----	-513.86	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**4.10**	**6.83**
		L_{18} - L_{19}	-175.85	-82.07	-26.80			0.75	1.00	-20.10	-61.55	0.00	0.00	Vehicle	Vehicle	-----	-361.97	1.25	26.75	25.5000	882.75	131.71	10.6406	5.6472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.88**	**6.46**
		L_{19} - L_{20}	-78.08	-84.94	80.60			0.75	1.00	60.45	-63.71	0.00	0.00	Vehicle	Vehicle	29.47	-239.53	1.88	26.75	24.8700	882.75	131.71	10.6380	5.6472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**7.51**	**12.52**	**4.67**	**7.78**
	Structure 2	L_{20} - L_{21}	7.55	-88.77	113.19			0.75	1.00	84.89	-66.58	0.00	0.00	Vehicle	Vehicle	193.76	-134.43	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.76**	**11.27**	**7.41**	**12.34**
		L_{21} - L_{22}	59.07	-87.43	126.93			0.75	1.00	95.20	-65.57	0.00	0.00	Vehicle	Vehicle	283.05	-65.29	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**5.71**	**9.51**	**7.99**	**13.32**
		L_{22} - L_{23}	71.98	-86.84	128.40			0.75	1.00	96.30	-65.13	0.00	0.00	Vehicle	Vehicle	302.22	-47.54	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**5.56**	**9.27**	**8.16**	**13.61**
		L_{23} - L_{24}	33.55	-85.69	109.80			0.75	1.00	82.35	-64.26	0.00	0.00	Vehicle	Vehicle	222.03	-95.63	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.78**	**11.31**	**7.92**	**13.19**
		L_{24} - L_{25}	-45.09	-83.96	43.57			0.75	1.00	32.68	-62.97	0.00	0.00	Vehicle	Vehicle	12.20	-195.04	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**13.29**	**22.16**	**5.04**	**8.39**
		L_{25} - L_{26}	-134.94	-79.38	0.00			0.75	1.00	0.00	-59.54	0.00	0.00	Vehicle	Vehicle	-----	-304.41	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.42**	**7.37**
		L_{26} - L_{27}	-245.90	-82.05	0.00			0.75	1.00	0.00	-61.54	0.00	0.00	Vehicle	Vehicle	-----	-453.00	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**4.70**	**7.83**
		L_{27} - L_{28}	-351.78	-139.85	0.00			0.75	1.00	0.00	-104.89	0.00	0.00	Vehicle	Vehicle	-----	-684.57	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.98**	**6.63**
		L_{28} - L_{29}	-458.29	-49.40	-180.80			0.75	1.00	-37.05	-135.60	0.00	0.00	Vehicle	Vehicle	-----	-889.58	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.62**	**6.03**
		L_{29} - L_{30}	-542.18	-216.21	0.00			0.75	1.00	0.00	-162.16	0.00	0.00	Vehicle	Vehicle	-----	-1056.18	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.60**	**6.00**
		L_{30} - L_{31}	-514.03	0.00	-215.50			0.75	1.00	0.00	-161.62	0.00	0.00	Vehicle	Vehicle	-----	-1018.42	11.98	70.85	58.8700	2338.05	131.71	11.1432	5.6285	17.82	32.70	-1969.16	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.71**	**6.19**
		L_{31} - L_{32}	-411.21	-104.95	-37.51			0.75	1.00	-28.13	-78.71	0.00	0.00	Vehicle	Vehicle	-----	-705.12	9.73	59.60	49.8700	1966.80	131.71	11.1432	5.8413	17.17	32.72	-1657.58	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Axial Force Rating

Location	Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	Impact & Pedestrian Load MAX	Impact & Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capacity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Verticals																																																
Structure 1	U_0 - L_0	-67.60	-58.71	15.33			0.75	1.00	11.50	-44.03	0.00	0.00	Vehicle	Vehicle	-----	-183.28	1.63	16.85	15.2186	556.00	131.71	9.3438	1.9682	42.73	31.26	-447.73	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	3.77	6.29
	U_1 - L_1	-24.06	-42.81	14.90			0.75	1.00	11.18	-32.11	0.00	0.00	Vehicle	Vehicle	-----	-100.85	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.13	10.21
	U_2 - L_2	12.88	-34.53	12.75			0.75	1.00	9.56	-25.90	0.00	0.00	Vehicle	Vehicle	37.45	-39.38	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	26.03	43.39	8.45	14.09
	U_3 - L_3	37.35	-24.59	13.22			0.75	1.00	9.91	-18.44	0.00	0.00	Vehicle	Vehicle	70.03	-----	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	23.63	39.38	-----	-----
	U_4 - L_4	-15.53	0.00	-74.59			0.75	1.00	0.00	-55.94	0.00	0.00	Vehicle	Vehicle	-----	-141.41	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	3.59	5.98
	U_5 - L_5	-92.52	0.00	-80.09			0.75	1.00	0.00	-60.07	0.00	0.00	Vehicle	Vehicle	-----	-250.42	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	3.32	5.54
	U_6 - L_6	-117.01	0.00	-97.13			0.75	1.00	0.00	-72.84	0.00	0.00	Vehicle	Vehicle	-----	-309.94	3.13	24.86	21.7294	820.36	131.71	9.9479	2.0895	42.85	31.25	-660.40	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	3.22	5.37
	U_7 - L_7	-127.49	0.00	-90.32			0.75	1.00	0.00	-67.74	0.00	0.00	Vehicle	Vehicle	-----	-312.50	2.88	23.11	20.2294	762.61	131.71	11.7292	2.0414	51.71	30.46	-598.26	16.25	0.44	10.00	0.50	-----	-----	16.25	-----	-----	37.14	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	2.95	4.91
	U_8 - L_8	-368.60	-101.35	-92.55			0.75	1.00	-69.41	-76.01	0.00	0.00	Vehicle	Vehicle	-----	-643.88	3.28	51.42	48.1423	1696.94	131.71	16.6563	4.0363	37.14	31.69	-1385.05	15.25	0.82	15.64	1.31	-----	-----	15.25	-----	-----	18.60	45.00	Pass	5.96	12.00	Pass	-----	-----	-----	-----	-----	5.50	9.17
	U_9 - L_9	-214.45	-88.01	0.00			0.75	1.00	0.00	-66.01	0.00	0.00	Vehicle	Vehicle	-----	-421.81	3.50	31.56	28.0625	1041.56	131.71	12.1563	2.5582	42.77	31.26	-838.65	16.25	0.50	12.00	0.63	-----	-----	16.25	-----	-----	32.50	45.00	Pass	9.60	12.00	Pass	-----	-----	-----	-----	-----	3.91	6.52
	U_{10} - L_{10}	-198.57	-78.98	-6.84			0.75	1.00	-5.13	-59.23	0.00	0.00	Vehicle	Vehicle	-----	-386.47	2.76	36.13	33.3715	1192.34	131.71	10.7083	2.3777	40.53	31.44	-965.49	16.16	0.83	11.50	0.80	-----	-----	16.16	-----	-----	19.50	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	5.51	9.19
	U_{11} - L_{11}	-171.30	-83.58	0.00			0.75	1.00	0.00	-62.69	0.00	0.00	Vehicle	Vehicle	-----	-358.51	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.50	7.50
	U_{12} - L_{12}	-128.27	-75.59	0.00			0.75	1.00	0.00	-56.69	0.00	0.00	Vehicle	Vehicle	-----	-289.58	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	-----	-----	16.25	-----	-----	32.50	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	4.28	7.13
	U_{13} - L_{13}	-96.55	-65.20	0.00			0.75	1.00	0.00	-48.90	0.00	0.00	Vehicle	Vehicle	-----	-231.46	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	3.48	5.81
	U_{14} - L_{14}	-11.04	-41.93	-43.77			0.75	1.00	-31.45	-32.82	0.00	0.00	Vehicle	Vehicle	-----	-85.48	0.00	16.85	16.8486	556.00	131.71	9.2605	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.10	10.17
	U_{15} - L_{15}	-2.54	7.61	-38.74			0.75	1.00	5.71	-29.06	0.00	0.00	Vehicle	Vehicle	9.07	-66.25	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	45.20	75.34	7.03	11.72
	U_{16} - L_{16}	-31.31	6.69	-45.03			0.75	1.00	5.02	-33.77	0.00	0.00	Vehicle	Vehicle	-----	-113.88	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.51	9.18
	U_{17} - L_{17}	-105.02	7.36	-68.19			0.75	1.00	5.52	-51.14	0.00	0.00	Vehicle	Vehicle	-----	-247.32	0.00	20.66	20.6644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	3.59	5.99
	U_{18} - L_{18}	-126.66	6.02	-71.27			0.75	1.00	4.51	-53.45	0.00	0.00	Vehicle	Vehicle	-----	-280.46	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	4.48	7.46
	U_{19} - L_{19}	-166.54	5.53	-73.67			0.75	1.00	4.15	-55.25	0.00	0.00	Vehicle	Vehicle	-----	-336.21	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.88	8.14
	U_{20} - L_{20}	-184.30	5.12	-81.77			0.75	1.00	3.84	-61.33	0.00	0.00	Vehicle	Vehicle	-----	-372.46	0.00	30.63	30.6305	1010.81	131.71	20.3229	2.8427	64.34	29.06	-756.66	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.89	6.49
	U_0 - L_0	-203.39	-96.91	18.80			0.75	1.00	14.10	-72.68	0.00	0.00	Vehicle	Vehicle	-----	-421.88	0.00	33.27	33.2657	1097.77	131.71	19.1510	2.8573	60.32	29.54	-835.23	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.62	6.04
	U_1 - L_1	-176.11	-88.28	20.53			0.75	1.00	15.40	-66.21	0.00	0.00	Vehicle	Vehicle	-----	-372.40	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	4.50	7.50
	U_2 - L_2	-137.45	-74.52	19.65			0.75	1.00	14.73	-55.89	0.00	0.00	Vehicle	Vehicle	-----	-299.78	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.69	7.82
	U_3 - L_3	-117.61	-65.22	20.68			0.75	1.00	15.51	-48.92	0.00	0.00	Vehicle	Vehicle	-----	-258.88	0.00	22.73	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	45.00	Pass	4.91	12.00	Pass	-----	-----	-----	-----	-----	4.10	6.83
	U_4 - L_4	-50.97	-46.87	16.35			0.75	1.00	12.26	-35.15	0.00	0.00	Vehicle	Vehicle	-----	-142.42	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	4.92	8.20
	U_5 - L_5	-13.79	-39.71	16.11			0.75	1.00	12.08	-29.78	0.00	0.00	Vehicle	Vehicle	8.26	-82.46	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	21.92	36.54	6.58	10.97
	U_6 - L_6	45.46	-24.02	12.78			0.75	1.00	9.59	-18.01	0.00	0.00	Vehicle	Vehicle	79.86	-----	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	23.93	39.88	-----	-----
	U_7 - L_7	-22.33	0.00	-9.71			0.75	1.00	0.00	-7.28	0.00	0.00	Vehicle	Vehicle	-----	-44.81	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	26.22	43.70
	U_8 - L_8	-120.06	0.00	-55.16			0.75	1.00	0.00	-41.37	0.00	0.00	Vehicle	Vehicle	-----	-245.71	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	-----	-----	15.75	-----	-----	36.00	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	5.95	9.92
	U_9 - L_9	-177.00	0.00	-82.07			0.75	1.00	0.00	-61.55	0.00	0.00	Vehicle	Vehicle	-----	-363.46	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	5.01	8.35
	U_{10} - L_{10}	-205.85	0.00	-84.28			0.75	1.00	0.00	-63.21	0.00	0.00	Vehicle	Vehicle	-----	-404.57	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	5.44	9.06
	U_{11} - L_{11}	-239.21	0.00	-123.00			0.75	1.00	0.00	-92.25	0.00	0.00	Vehicle	Vehicle	-----	-510.85	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.42	5.70
	U_{12} - L_{12}	-257.92	-3.70	-122.38			0.75	1.00	-2.77	-91.78	0.00	0.00	Vehicle	Vehicle	-----	-534.16	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.56	5.93
	U_{13} - L_{13}	-243.80	0.00	-101.40			0.75	1.00	0.00	-76.05	0.00	0.00	Vehicle	Vehicle	-----	-481.72	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.52	5.87
	U_{14} - L_{14}	-420.84	-84.59	-81.90			0.75	1.00	-61.43	-63.44	0.00	0.00	Vehicle	Vehicle	-----	-684.55	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	-----	-----	-----	5.97	9.95
	U_{15} - L_{15}	-158.85	-89.92	21.70			0.75	1.00	16.28	-67.44	0.00	0.00	Vehicle	Vehicle	-----	-352.62	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.73	7.88
	U_{16} - L_{16}	-174.03	-108.28	13.00			0.75	1.00	9.75	-81.21	0.00	0.00	Vehicle	Vehicle	-----	-402.19	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.64	6.06
	U_{17} - L_{17}	-156.46	-108.05	10.81			0.75	1.00	8.11	-81.04	0.00	0.00	Vehicle	Vehicle	-----	-378.98	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.46	5.76
	U_{18} - L_{18}	-142.20	-111.98	2.92			0.75	1.00	2.19	-83.98	0.00	0.00	Vehicle	Vehicle	-----	-366.83	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.11	5.18
	U_{19} - L_{19}	-113.66	-59.35	3.67			0.75	1.00	2.75	-44.51	0.00	0.00	Vehicle	Vehicle	-----	-244.20	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	5.36	8.93
	U_{20} - L_{20}	-76.52	-52.46	-1.07			0.75	1.00	-0.81	-39.34	0.00	0.00	Vehicle	Vehicle	-----	-184.72	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	4.55	7.59
Structure 2	U_{21} - L_{21}	-45.78	-44.93	0.44			0.75	1.00	0.33	-33.70	0.00	0.00	Vehicle	Vehicle	-----	-132.52	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.25	8.75
	U_{22} - L_{22}	-17.71	-9.59	-7.40			0.75	1.00	-5.55	-7.19	0.00	0.00	Vehicle	Vehicle	-----	-38.61	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	27.03	45.05
	U_{23} - L_{23}	-30.66	1.74	-43.91			0.75	1.00	1.31	-32.93	0.00	0.00	Vehicle	Vehicle	-----	-111.21	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.65	9.41
	U_{24} - L_{24}	-62.03	-0.17	-51.51			0.75	1.00	-0.13	-38.63	0.00	0.00	Vehicle	Vehicle	-----	-164.33	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	4.86	8.11
	U_{25} - L_{25}	-103.10	3.10	-67.56			0.75	1.00	2.33	-50.67	0.00	0.00	Vehicle	Vehicle	-----	-243.81	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	4.83	8.06
	U_{26} - L_{26}	-134.31	0.93	-111.37			0.75	1.00	0.70	-83.53	0.00	0.00	Vehicle	Vehicle	-----	-355.58	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.18	5.30
	U_{27} - L_{27}	-155.93	5.70	-107.73			0.75	1.00	4.27	-80.80	0.00	0.00	Vehicle	Vehicle	-----	-377.77	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.47	5.78
	U_{28} - L_{28}	-179.28	4.02	-118.30			0.75	1.00	3.01	-88.73	0.00	0.00	Vehicle	Vehicle	-----	-425.31	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.29	5.49
	U_{29} - L_{29}	-171.45	0.00	-100.31			0.75	1.00	0.00	-75.23	0.00	0.00	Vehicle	Vehicle	-----	-385.88	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.14	6.89
	U_{30} - L_{30}	-392.76	-99.57	-73.81			0.75	1.00	-55.36	-74.68	0.00	0.00	Vehicle	Vehicle	-----	-672.39	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	-----	-----	-----	5.30	8.83
	U_{31} - L_{31}	-203.21	-103.57	14.71			0.75	1.00	11.03	-77.68	0.00	0.00	Vehicle	Vehicle	-----	-432.48	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.76	6.27
	U_{32} - L_{32}	-222.46	-123.77	3.48			0.75	1.00	2.61	-92.83	0.00	0.00	Vehicle	Vehicle	-----	-490.32	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.74	6.24
	U_{33} - L_{33}	-211.56	-123.50	1.61	

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Location		Member	Member Forces from STAAD: D (kips)	LL_{max} (kips)	LL_{min} (kips)	Pedestrian $Load_{MAX}$	Pedestrian $Load_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL_{MAX}	Lane Reduction and Impact LL_{MIN}	Impact & Pedestrian $Load_{MAX}$	Impact & Pedestrian $Load_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A_{deduct} (in^2) **	A_{gross} (in^2)	A_{net} (in^2)	$C_{Nominal}$ (kips)	Member Capicity in Compression: C_c	L (feet)	r_{min} (in)	KL/r_{min} ***	F_{crit} **** (ksi)	$C_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Diagonals	Structure 1	U_0 - L_1	53.25	64.82	-23.23			0.75	1.00	48.62	-17.42	0.00	0.00	Vehicle	Vehicle	174.56	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	7.23	-----	-----	-----	-----	-----	**6.58**	**10.97**	-----	-----
		U_1 - L_2	10.78	50.15	-18.77			0.75	1.00	37.61	-14.08	0.00	0.00	Vehicle	Vehicle	95.50	-16.50	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**6.65**	**11.08**	**14.75**	**24.58**
		U_2 - L_3	-44.02	40.99	-7.77			0.75	1.00	30.74	-5.83	0.00	0.00	Vehicle	Vehicle	9.39	-69.85	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**9.21**	**15.34**	**29.88**	**49.81**
		U_3 - L_4	-76.72	-19.09	16.91			0.75	1.00	12.68	-14.31	0.00	0.00	Vehicle	Vehicle	-----	-130.75	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**10.88**	**18.14**
		U_4 - L_4	118.39	20.66	47.16			0.75	1.00	35.37	15.49	0.00	0.00	Vehicle	Vehicle	230.54	-----	0.00	20.66	20.6644	681.93	131.71	11.6953	2.0011	52.60	30.37	-533.41	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**6.89**	**11.48**	-----	-----
		U_5 - L_5	137.53	107.65	0.00			0.75	1.00	80.74	0.00	0.00	0.00	Vehicle	Vehicle	353.71	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.81**	**6.36**	-----	-----
		U_6 - L_6	157.34	106.26	0.00			0.75	1.00	79.69	0.00	0.00	0.00	Vehicle	Vehicle	377.20	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.71**	**6.19**	-----	-----
		U_7 - L_7	149.30	96.92	0.00			0.75	1.00	72.69	0.00	0.00	0.00	Vehicle	Vehicle	351.58	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.14**	**6.90**	-----	-----
		U_8 - L_8	249.09	92.80	0.00			0.75	1.00	69.60	0.00	0.00	0.00	Vehicle	Vehicle	474.62	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**6.15**	**10.25**	-----	-----
		U_9 - L_{10}	260.26	100.14	0.00			0.75	1.00	75.11	0.00	0.00	0.00	Vehicle	Vehicle	501.06	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.61**	**9.35**	-----	-----
		U_{10} - L_{11}	236.30	105.21	0.00			0.75	1.00	78.91	0.00	0.00	0.00	Vehicle	Vehicle	478.16	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**5.13**	**8.55**	-----	-----
		U_{11} - L_{12}	211.92	94.19	0.00			0.75	1.00	70.65	0.00	0.00	0.00	Vehicle	Vehicle	428.57	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.80**	**8.01**	-----	-----
		U_{12} - L_{13}	151.66	91.95	0.00			0.75	1.00	68.96	0.00	0.00	0.00	Vehicle	Vehicle	346.57	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**4.17**	**6.95**	-----	-----
		U_{13} - L_{14}	108.60	64.51	31.20			0.75	1.00	48.39	23.40	0.00	0.00	Vehicle	Vehicle	246.02	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**3.96**	**6.59**	-----	-----
		U_{14} - L_{14}	-24.45	0.00	-8.51			0.75	1.00	0.00	-6.38	0.00	0.00	Vehicle	Vehicle	-----	-45.61	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**28.56**	**47.60**
		U_{15} - L_{15}	23.99	54.56	-10.25			0.75	1.00	40.92	-7.69	0.00	0.00	Vehicle	Vehicle	119.85	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.92**	**9.87**	-----	-----
		U_{17} - L_{16}	120.03	63.53	-10.41			0.75	1.00	47.65	-7.81	0.00	0.00	Vehicle	Vehicle	259.27	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**5.09**	**8.49**	-----	-----
		U_{18} - L_{17}	144.79	81.04	-8.72			0.75	1.00	60.78	-6.54	0.00	0.00	Vehicle	Vehicle	319.92	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.99**	**8.32**	-----	-----
		U_{19} - L_{18}	193.05	77.00	-7.19			0.75	1.00	57.75	-5.39	0.00	0.00	Vehicle	Vehicle	376.08	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.37**	**8.96**	-----	-----
		U_{20} - L_{19}	193.51	77.26	-5.84			0.75	1.00	57.94	-4.38	0.00	0.00	Vehicle	Vehicle	377.11	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.35**	**8.92**	-----	-----
		U_0 - L_1	202.41	91.55	-21.40			0.75	1.00	68.66	-16.05	0.00	0.00	Vehicle	Vehicle	411.90	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.03**	**8.38**	-----	-----
		U_1 - L_2	190.86	90.56	-24.27			0.75	1.00	67.92	-18.20	0.00	0.00	Vehicle	Vehicle	395.28	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.18**	**8.64**	-----	-----
		U_2 - L_3	155.85	75.09	-23.88			0.75	1.00	56.32	-17.91	0.00	0.00	Vehicle	Vehicle	324.62	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.27**	**8.79**	-----	-----
		U_3 - L_4	134.05	63.95	-26.33			0.75	1.00	47.96	-19.75	0.00	0.00	Vehicle	Vehicle	278.18	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**5.54**	**9.24**	-----	-----
		U_4 - L_5	46.02	50.07	-20.78			0.75	1.00	37.55	-15.59	0.00	0.00	Vehicle	Vehicle	141.19	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	70.40	28.29	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**6.10**	**10.16**	-----	-----
		U_5 - L_6	3.45	38.22	-16.04			0.75	1.00	28.66	-12.03	0.00	0.00	Vehicle	Vehicle	66.58	-21.59	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**8.88**	**14.80**	**16.41**	**27.36**
		U_6 - L_7	-84.29	0.00	-31.30			0.75	1.00	0.00	-23.48	0.00	0.00	Vehicle	Vehicle	-----	-160.44	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	**7.03**	**11.71**
		U_7 - L_7	137.30	42.83	32.97			0.75	1.00	32.12	24.73	0.00	0.00	Vehicle	Vehicle	248.08	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**8.70**	**14.51**	-----	-----
		U_8 - L_8	210.89	77.89	0.00			0.75	1.00	58.42	0.00	0.00	0.00	Vehicle	Vehicle	400.73	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.13**	**8.55**	-----	-----
		U_{10} - L_9	236.36	97.69	0.00			0.75	1.00	73.27	0.00	0.00	0.00	Vehicle	Vehicle	466.02	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.43**	**7.39**	-----	-----
		U_{11} - L_{10}	274.62	98.38	0.00			0.75	1.00	73.78	0.00	0.00	0.00	Vehicle	Vehicle	516.87	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.63**	**7.72**	-----	-----
		U_{12} - L_{11}	281.06	130.61	0.00			0.75	1.00	97.96	0.00	0.00	0.00	Vehicle	Vehicle	577.62	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.45**	**5.75**	-----	-----
		U_{13} - L_{12}	278.12	108.92	-6.80			0.75	1.00	81.69	-5.10	0.00	0.00	Vehicle	Vehicle	538.55	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.67**	**6.11**	-----	-----
		U_{14} - L_{13}	235.45	94.78	-11.42			0.75	1.00	71.09	-8.56	0.00	0.00	Vehicle	Vehicle	460.10	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.58**	**7.63**	-----	-----
		U_{14} - L_{15}	143.03	73.10	-23.94			0.75	1.00	54.82	-17.95	0.00	0.00	Vehicle	Vehicle	304.72	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.56**	**9.26**	-----	-----
		U_{15} - L_{16}	171.91	91.17	-22.46			0.75	1.00	68.38	-16.84	0.00	0.00	Vehicle	Vehicle	371.63	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.20**	**7.00**	-----	-----
		U_{16} - L_{17}	181.04	113.92	-12.53			0.75	1.00	85.44	-9.40	0.00	0.00	Vehicle	Vehicle	420.48	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.72**	**6.19**	-----	-----
		U_{17} - L_{18}	171.16	112.16	-11.85			0.75	1.00	84.12	-8.89	0.00	0.00	Vehicle	Vehicle	404.77	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.42**	**5.70**	-----	-----
		U_{18} - L_{19}	150.64	69.40	0.00			0.75	1.00	52.05	0.00	0.00	0.00	Vehicle	Vehicle	308.61	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.76**	**9.61**	-----	-----
	Structure 2	U_{19} - L_{20}	125.86	62.20	0.00			0.75	1.00	46.65	0.00	0.00	0.00	Vehicle	Vehicle	264.70	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**6.14**	**10.23**	-----	-----
		U_{20} - L_{21}	76.05	60.29	-0.53			0.75	1.00	45.21	-0.40	0.00	0.00	Vehicle	Vehicle	196.83	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.67**	**7.78**	-----	-----
		U_{21} - L_{22}	38.34	18.48	-15.75			0.75	1.00	13.86	-11.81	0.00	0.00	Vehicle	Vehicle	79.88	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**16.85**	**28.09**	-----	-----
		U_{23} - L_{22}	18.02	25.25	10.32			0.75	1.00	18.94	7.74	0.00	0.00	Vehicle	Vehicle	64.46	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**12.98**	**21.63**	-----	-----
		U_{24} - L_{23}	58.54	60.68	0.00			0.75	1.00	45.51	0.00	0.00	0.00	Vehicle	Vehicle	174.71	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.87**	**8.11**	-----	-----
		U_{25} - L_{24}	114.92	63.28	0.00			0.75	1.00	47.46	0.00	0.00	0.00	Vehicle	Vehicle	252.22	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**6.17**	**10.29**	-----	-----
		U_{26} - L_{25}	142.93	82.11	0.00			0.75	1.00	61.58	0.00	0.00	0.00	Vehicle	Vehicle	319.24	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.95**	**8.24**	-----	-----
		U_{27} - L_{26}	173.71	114.85	0.00			0.75	1.00	86.14	0.00	0.00	0.00	Vehicle	Vehicle	412.46	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.32**	**5.54**	-----	-----
		U_{28} - L_{27}	186.49	117.03	-7.33			0.75	1.00	87.77	-5.50	0.00	0.00	Vehicle	Vehicle	432.61	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.58**	**5.97**	-----	-----
		U_{29} - L_{28}	190.57	104.86	-9.50			0.75	1.00	78.65	-7.12	0.00	0.00	Vehicle	Vehicle	418.14	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.51**	**5.85**	-----	-----
		U_{30} - L_{29}	161.74	85.87	-13.85			0.75	1.00	64.40	-10.39	0.00	0.00	Vehicle	Vehicle	349.80	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.56**	**7.59**	-----	-----
		U_{30} - L_{31}	191.49	86.60	-17.00			0.75	1.00	64.95	-12.75	0.00	0.00	Vehicle	Vehicle	389.66	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.41**	**9.02**	-----	-----
		U_{31} - L_{32}	226.17	108.15	-15.13			0.75	1.00	81.11	-11.35	0.00	0.00	Vehicle	Vehicle	469.77	-----	0.00	30.63	30.6305	1010.81	131.71	17.8750	2.8427	56.59	29.95	-779.87	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.08**	**6.80**	-----	-----
		U_{32} - L_{33}	243.26	127.73	0.00			0.75	1.00	95.80	0.00	0.00	0.00	Vehicle	Vehicle	523.80	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.77**	**6.28**	-----	-----
		U_{33} - L_{34}	238.98	73.99	0.00			0.75	1.00	55.49	0.00	0.00	0.00	Vehicle	Vehicle	430.90	-----	0.00	33.27	33.2657	1097.77	131.71	14.5729	2.8573	45.90	31.00	-876.43	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**6.55**	**10.91**	-----	-----
		U_{34} - L_{35}	222.10	78.93	0.00			0.75	1.00	59.20	0.00	0.00	0.00	Vehicle	Vehicle	416.99	-----	0.00	30.63	30.6305	1010.81	131.71	13.7604	2.8427	43.57	31.19

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Location		Member	Member Forces from STAAD: D (kips)	LL_{max} (kips)	LL_{min} (kips)	Pedestrian $Load_{MAX}$	Pedestrian $Load_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL_{MAX}	Lane Reduction and Impact LL_{MIN}	Impact & Pedestrian $Load_{MAX}$	Impact & Pedestrian $Load_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A_{deduct} (in^2) **	A_{gross} (in^2)	A_{net} (in^2)	$C_{Nominal}$ (kips)	Member Capacity in Compression: C_c	L (feet)	r_{min} (in)	KL/r_{min} ***	F_{crit} **** (ksi)	$C_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Upper Chord	Structure 1	U_0 - U_1	-66.77	12.71	-38.85	2.20	-8.83	0.90	1.00	11.43	-34.96	2.20	-8.83	Vehicle	Vehicle	-----	-162.55	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	8.56	14.26
		U_1 - U_2	-86.66	30.98	-71.48	6.00	-16.34	0.90	1.00	27.88	-64.33	6.00	-16.34	Vehicle	Vehicle	-----	-252.04	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	4.46	7.44
		U_2 - U_3	-48.28	45.79	-68.63	9.44	-19.05	0.90	1.00	41.21	-61.77	9.44	-19.05	Vehicle	Vehicle	26.53	-196.58	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	10.47	17.46	5.02	8.37
		U_3 - U_4	36.43	58.87	-39.60	12.72	-17.47	0.90	1.00	52.98	-35.64	12.72	-17.47	Vehicle	Pedestrian	162.15	-38.94	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	7.19	11.98	9.06	11.33
		U_4 - U_5	38.78	59.04	-54.96	12.78	-17.37	0.90	1.00	53.14	-49.46	12.78	-17.37	Vehicle	Pedestrian	165.54	-58.19	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	7.14	11.90	7.23	9.04
		U_5 - U_6	154.43	34.73	-10.29	3.10	0.00	0.90	1.00	31.26	-9.26	3.10	0.00	Vehicle	Vehicle	268.48	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	9.92	16.53	-----	-----
		U_6 - U_7	288.19	65.61	-6.68	17.11	-4.31	0.90	1.00	59.05	-6.02	17.11	-4.31	Vehicle	Pedestrian	502.58	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	5.25	8.74	-----	-----
		U_7 - U_8	410.75	90.61	21.04	22.59	0.00	0.90	1.00	81.55	18.94	22.59	0.00	Vehicle	Vehicle	710.66	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	5.15	8.58	-----	-----
		U_8 - U_9	311.35	41.95	25.90	12.90	6.15	0.90	1.00	37.76	23.31	12.90	6.15	Pedestrian	Vehicle	487.07	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	9.91	12.39	-----	-----
		U_9 - U_{10}	78.25	42.53	-24.95	12.28	-6.83	0.90	1.00	38.28	-22.45	12.28	-6.83	Vehicle	Vehicle	184.66	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	-----	-----	10.67	-----	-----	9.89	16.48	-----	-----
		U_{10} - U_{11}	-141.75	40.32	-72.46	11.11	-18.45	0.90	1.00	36.29	-65.21	11.11	-18.45	Vehicle	Vehicle	-----	-325.56	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.19	6.99
		U_{11} - U_{12}	-338.40	37.38	-116.05	9.77	-27.96	0.90	1.00	33.64	-104.44	9.77	-27.96	Vehicle	Vehicle	-----	-666.21	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	43.05	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	2.72	4.54
		U_{12} - U_{13}	-480.50	32.90	-130.78	8.23	-34.35	0.90	1.00	29.61	-117.70	8.23	-34.35	Vehicle	Vehicle	-----	-879.66	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	44.40	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	3.35	5.58
		U_{13} - U_{14}	-571.10	28.10	-100.79	6.68	-37.24	0.90	1.00	25.29	-90.71	6.68	-37.24	Vehicle	Pedestrian	-----	-950.35	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	4.73	5.91
		U_{14} - U_{15}	-571.52	27.97	-136.15	6.65	-37.25	0.90	1.00	25.17	-122.53	6.65	-37.25	Vehicle	Vehicle	-----	-1008.46	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.76	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.70	6.17
		U_{15} - U_{16}	-582.34	10.45	-125.15	0.00	-31.16	0.90	1.00	9.40	-112.63	0.00	-31.16	Vehicle	Vehicle	-----	-1001.07	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.93	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.97	6.62
		U_{16} - U_{17}	-539.92	9.49	-91.33	0.00	-28.35	0.90	1.00	8.54	-82.20	0.00	-28.35	Vehicle	Pedestrian	-----	-881.53	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	5.70	7.12
		U_{17} - U_{18}	-422.72	-79.09	10.66	-25.07	2.26	0.90	1.00	9.60	-71.18	2.26	-25.07	Vehicle	Pedestrian	-----	-705.94	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	45.00	Pass	32.00	50.00	Pass	8.00	12.00	Pass	-----	-----	4.56	5.69
		U_{18} - U_{19}	-286.53	-50.76	-15.92	-16.97	1.28	0.90	1.00	-14.33	-45.68	1.28	-16.97	Vehicle	Pedestrian	-----	-474.30	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	4.99	6.24
		U_{19} - U_{20}	-140.97	-6.43	-20.34	-8.68	0.55	0.90	1.00	-5.79	-18.31	0.55	-8.68	Vehicle	Pedestrian	-----	-227.11	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	15.91	19.88
	Structure 2	U_0 - U_1	-147.48	4.59	-29.54	0.36	-4.88	0.90	1.00	4.13	-26.59	0.36	-4.88	Vehicle	Vehicle	-----	-249.33	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	11.28	18.80
		U_1 - U_2	-319.09	16.38	-71.51	1.96	-13.36	0.90	1.00	14.74	-64.35	1.96	-13.36	Vehicle	Vehicle	-----	-554.25	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.40	7.34
		U_2 - U_3	-460.93	29.66	-109.93	3.77	-20.95	0.90	1.00	26.69	-98.93	3.77	-20.95	Vehicle	Vehicle	-----	-813.56	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.69	4.00	0.69	16.00	95.35	272.00	30.22	44.79	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.74	6.23
		U_3 - U_4	-580.02	45.30	-147.95	5.92	-27.68	0.90	1.00	40.77	-133.15	5.92	-27.68	Vehicle	Vehicle	-----	-1042.53	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.17	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.43	5.72
		U_4 - U_5	-616.47	58.78	-169.35	7.86	-31.35	0.90	1.00	52.90	-152.41	7.86	-31.35	Vehicle	Vehicle	-----	-1131.64	15.14	69.44	54.2975	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.65	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.43	5.71
		U_5 - U_6	-604.69	72.35	-184.00	9.87	-32.88	0.90	1.00	65.12	-165.60	9.87	-32.88	Vehicle	Vehicle	-----	-1144.89	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.39	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.20	5.33
		U_6 - U_7	-514.75	82.51	-178.70	11.56	-31.23	0.90	1.00	74.26	-160.83	11.56	-31.23	Vehicle	Vehicle	-----	-1017.64	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.71	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.08	5.14
		U_7 - U_8	-512.80	82.58	-178.36	11.57	-31.18	0.90	1.00	74.32	-160.52	11.57	-31.18	Vehicle	Vehicle	-----	-1014.43	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.78	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.10	5.16
		U_8 - U_9	-373.48	91.47	-154.29	13.16	-27.41	0.90	1.00	82.33	-138.86	13.16	-27.41	Vehicle	Vehicle	-----	-786.39	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	3.25	5.42
		U_9 - U_{10}	-181.02	95.18	-50.71	14.25	-21.42	0.90	1.00	85.67	-45.64	14.25	-21.42	Vehicle	Pedestrian	-----	-344.29	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	8.41	10.52
		U_{10} - U_{11}	26.21	97.83	-45.67	15.21	-14.40	0.90	1.00	88.05	-41.10	15.21	-14.40	Vehicle	Pedestrian	224.85	-56.12	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	6.03	10.04	11.47	14.33
		U_{11} - U_{12}	237.41	70.18	-34.17	10.86	0.00	0.90	1.00	63.16	-30.75	10.86	0.00	Vehicle	Vehicle	445.49	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	6.40	10.66	-----	-----
		U_{12} - U_{13}	435.92	33.02	-24.06	15.82	0.56	0.90	1.00	29.72	-21.65	15.82	0.56	Pedestrian	Vehicle	640.69	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	12.35	15.44	-----	-----
		U_{13} - U_{14}	595.85	129.55	21.49	24.32	0.00	0.90	1.00	116.60	19.34	24.32	0.00	Vehicle	Vehicle	1027.23	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.98	8.31	-----	-----
		U_{14} - U_{15}	615.52	65.34	54.59	13.42	8.77	0.90	1.00	58.81	49.13	13.42	8.77	Vehicle	Vehicle	927.59	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	9.68	16.13	-----	-----
		U_{15} - U_{16}	486.12	71.72	88.43	14.17	3.09	0.90	1.00	79.59	64.55	14.17	3.09	Vehicle	Vehicle	804.40	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	5.93	9.88	-----	-----
		U_{16} - U_{17}	339.23	77.01	-13.73	14.66	-2.95	0.90	1.00	69.31	-12.36	14.66	-2.95	Vehicle	Vehicle	591.17	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	6.10	10.17	-----	-----
		U_{17} - U_{18}	192.06	82.64	-53.11	15.12	-9.49	0.90	1.00	74.37	-47.79	15.12	-9.49	Vehicle	Vehicle	410.82	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	4.63	7.72	-----	-----
		U_{18} - U_{19}	53.73	85.45	-88.80	15.12	-15.34	0.90	1.00	76.91	-79.92	15.12	-15.34	Vehicle	Vehicle	236.48	-103.31	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	5.56	9.27	5.26	8.77
		U_{19} - U_{20}	-59.08	88.03	-120.54	15.07	-19.84	0.90	1.00	79.23	-108.48	15.07	-19.84	Vehicle	Vehicle	94.85	-311.85	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.66	11.10	3.51	5.84
	Structure 3	U_0 - U_1	-125.50	87.96	-125.82	14.76	-22.39	0.90	1.00	79.16	-113.24	14.76	-22.39	Vehicle	Vehicle	8.38	-408.49	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.47	14.11	3.77	6.28
		U_1 - U_2	-146.93	87.10	-89.66	14.37	-22.74	0.90	1.00	78.39	-80.69	14.37	-22.74	Vehicle	Vehicle	-----	-365.84	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	5.13	8.55
		U_2 - U_3	-146.70	86.96	-121.74	14.36	-22.72	0.90	1.00	78.27	-109.57	14.36	-22.72	Vehicle	Vehicle	-----	-428.11	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.78	6.30
		U_3 - U_4	-112.76	83.44	-66.06	13.87	-16.66	0.90	1.00	75.10	-59.45	13.87	-16.66	Vehicle	Vehicle	16.11	-275.40	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.82	14.71	7.31	12.18
		U_4 - U_5	-36.27	79.51	-54.26	13.40	-15.02	0.90	1.00	71.56	-48.83	13.40	-15.02	Vehicle	Vehicle	107.89	-152.96	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	7.18	11.97	8.07	13.45
		U_5 - U_6	80.70	-5.64	-15.55	0.37	0.00	0.90	1.00	-5.07	-14.00	0.37	0.00	Vehicle	Vehicle	93.91	-----	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	-----	-----	-----	-----
		U_6 - U_7	220.59	35.36	-9.86	7.92	0.00	0.90	1.00	31.82	-8.87	7.92	0.00	Vehicle	Vehicle	355.71	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	10.29	17.15	-----	-----
		U_7 - U_8	363.31	72.60	-1.02	14.90	0.00	0.90	1.00	65.34	-0.92	14.90	0.00	Vehicle	Vehicle	613.87	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	6.25	10.42	-----	-----
		U_8 - U_9	503.82	4.42	10.53	21.74	3.11	0.90	1.00	9.48	3.98	21.74	3.11	Pedestrian	Pedestrian	705.69	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	19.70	24.62	-----	-----
		U_9 - U_{10}	616.57	127.27	-11.00	27.08	0.00	0.90	1.00	114.54	-9.90	27.08	0.00	Vehicle	Vehicle	1049.71	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.96	8.

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Lower Chord	Structure 1	L$_0$- L$_1$	-2.01	0.68	-5.29	0.36	-2.06	0.90	1.00	0.61	-4.76	0.36	-2.06	Pedestrian	Pedestrian	-----	-13.68	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	-----	-----	**49.49**	**61.87**
		L$_1$ - L$_2$	67.91	-18.02	37.67	-3.36	9.23	0.90	1.00	33.91	-16.22	9.23	-3.36	Vehicle	Vehicle	161.74	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.69**	**12.82**	-----	-----
		L$_2$ - L$_3$	78.84	-38.84	76.12	-7.39	15.48	0.90	1.00	68.51	-34.96	15.48	-7.39	Vehicle	Vehicle	250.93	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**5.17**	**8.61**	-----	-----
		L$_3$ - L$_4$	39.14	-53.61	72.67	-10.83	18.09	0.90	1.00	65.40	-48.25	18.09	-10.83	Vehicle	Vehicle	192.59	-53.65	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	**5.77**	**9.62**	**7.49**	**12.48**
		L$_4$ - L$_5$	-166.38	-35.95	16.98	-16.90	10.96	0.90	1.00	15.28	-32.35	10.96	-16.90	Pedestrian	Pedestrian	-----	-296.34	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**5.42**	**6.78**
		L$_5$ - L$_6$	-301.23	-67.12	13.45	-15.70	0.00	0.90	1.00	12.10	-60.41	0.00	-15.70	Vehicle	Vehicle	-----	-522.48	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	43.83	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**3.56**	**5.93**
		L$_6$ - L$_7$	-438.94	-8.89	-86.40	-4.99	-21.52	0.90	1.00	-8.00	-77.76	-4.99	-21.52	Pedestrian	Vehicle	-----	-739.10	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	44.12	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.90**	**6.51**
		L$_7$ - L$_8$	-551.65	-115.95	-8.25	-35.55	0.00	0.90	1.00	-7.43	-104.36	0.00	-35.55	Vehicle	Pedestrian	-----	-944.49	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	44.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.70**	**4.63**
		L$_8$ - L$_9$	-570.53	-31.91	-94.11	-11.71	-25.77	0.90	1.00	-28.72	-84.70	-11.71	-25.77	Pedestrian	Vehicle	-----	-925.19	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	44.46	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**4.46**	**7.43**
		L$_9$ - L$_{10}$	-355.48	-33.75	-48.19	-11.67	-13.03	0.90	1.00	-30.37	-43.37	-11.67	-13.03	Pedestrian	Vehicle	-----	-556.10	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**8.16**	**13.60**
		L$_{10}$ - L$_{11}$	-118.48	-35.31	9.03	-10.69	-1.74	0.90	1.00	8.13	-31.78	-1.74	-10.69	Vehicle	Pedestrian	-----	-223.04	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**7.19**	**8.99**
		L$_{11}$ - L$_{12}$	103.45	-32.98	56.94	-9.47	9.96	0.90	1.00	51.24	-29.69	9.96	-9.47	Vehicle	Vehicle	245.51	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.74**	**9.57**	-----	-----
		L$_{12}$ - L$_{13}$	300.60	-30.92	106.90	-8.14	17.83	0.90	1.00	96.21	-27.83	17.83	-8.14	Vehicle	Vehicle	599.24	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.20**	**7.01**	-----	-----
		L$_{13}$ - L$_{14}$	441.19	-26.48	121.28	-6.61	24.15	0.90	1.00	109.15	-23.83	24.15	-6.61	Vehicle	Vehicle	810.04	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.76**	**7.94**	-----	-----
		L$_{14}$ - L$_{15}$	547.00	-17.40	120.35	0.00	21.08	0.90	1.00	108.32	-15.66	21.08	0.00	Vehicle	Vehicle	945.79	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.69**	**9.49**	-----	-----
		L$_{15}$ - L$_{16}$	506.09	-16.49	103.14	0.00	18.29	0.90	1.00	92.82	-14.84	18.29	0.00	Vehicle	Vehicle	859.03	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**6.91**	**11.51**	-----	-----
		L$_{16}$ - L$_{17}$	398.75	79.00	-6.93	0.00	11.88	0.90	1.00	71.10	-6.23	11.88	0.00	Vehicle	Vehicle	672.43	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	**6.90**	**11.50**	-----	-----
		L$_{17}$ - L$_{18}$	263.81	49.89	61.25	4.66	0.15	0.90	1.00	55.13	44.90	4.66	0.15	Vehicle	Vehicle	462.39	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	**6.74**	**11.24**	-----	-----
		L$_{18}$ - L$_{19}$	118.75	25.77	0.49	-3.38	0.71	0.90	1.00	23.19	0.44	0.71	-3.38	Vehicle	Pedestrian	204.63	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**9.93**	**16.55**	-----	-----
		L$_{19}$ - L$_{20}$	-23.36	2.10	3.11	-12.08	1.28	0.90	1.00	2.80	1.89	1.28	-12.08	Pedestrian	Pedestrian	-----	-46.93	1.95	19.80	17.8500	653.40	131.71	10.8073	5.6265	17.41	32.71	-550.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	-----	-----	-----	-----
		L$_0$- L$_1$	-36.12	5.10	-16.52	1.19	-5.14	0.90	1.00	4.59	-14.86	1.19	-5.14	Vehicle	Pedestrian	-----	-79.47	1.88	24.95	23.0700	823.35	131.71	10.8828	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	45.00	Pass	6.32	12.00	Pass	6.32	12.00	Pass	-----	-----	**19.95**	**24.93**
		L$_1$ - L$_2$	132.64	-4.25	21.03	-0.06	2.93	0.90	1.00	18.92	-3.82	2.93	-0.06	Vehicle	Vehicle	213.44	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**15.88**	**26.46**	-----	-----
		L$_2$ - L$_3$	303.94	-18.08	68.95	-1.79	10.52	0.90	1.00	62.06	-16.27	10.52	-1.79	Vehicle	Vehicle	529.58	-----	6.20	38.45	32.2500	1268.85	131.71	10.7370	6.1675	15.67	32.77	-1070.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	**6.50**	**10.83**	-----	-----
		L$_3$ - L$_4$	445.73	-31.50	107.52	-3.63	18.15	0.90	1.00	96.77	-28.35	18.15	-3.63	Vehicle	Vehicle	789.11	-----	9.45	51.58	42.1250	1701.98	131.71	10.7370	5.7558	16.79	32.73	-1434.93	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	**5.35**	**8.92**	-----	-----
		L$_4$ - L$_5$	567.64	-50.18	151.77	-6.10	24.81	0.90	1.00	136.59	-45.16	24.81	-6.10	Vehicle	Vehicle	1033.88	-----	11.00	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.90	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.75**	**7.92**	-----	-----
		L$_5$ - L$_6$	603.43	-63.74	173.07	-8.06	28.47	0.90	1.00	155.77	-57.37	28.47	-8.06	Vehicle	Vehicle	1121.96	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.58**	**7.64**	-----	-----
		L$_6$ - L$_7$	599.28	-80.60	194.18	-10.41	30.25	0.90	1.00	174.76	-72.54	30.25	-10.41	Vehicle	Vehicle	1157.71	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	**4.18**	**6.97**	-----	-----
		L$_7$ - L$_8$	373.73	-99.57	165.37	-13.66	24.92	0.90	1.00	148.84	-89.62	24.92	-13.66	Vehicle	Vehicle	808.32	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	**3.90**	**6.50**	-----	-----
		L$_8$ - L$_9$	195.51	-106.81	69.92	-15.12	19.51	0.90	1.00	62.93	-96.13	19.51	-15.12	Vehicle	Vehicle	390.51	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	**8.62**	**14.37**	-----	-----
		L$_9$ - L$_{10}$	-13.41	-109.67	65.19	-7.61	12.45	0.90	1.00	58.67	-98.70	12.45	-7.61	Vehicle	Vehicle	109.69	-231.30	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	**8.95**	**14.92**	**4.34**	**7.24**
		L$_{10}$ - L$_{11}$	-217.51	-69.19	56.17	-15.65	0.00	0.90	1.00	50.55	-62.27	0.00	-15.65	Vehicle	Vehicle	-----	-417.67	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.78	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**4.17**	**6.95**
		L$_{11}$ - L$_{12}$	-420.12	-105.15	46.16	-23.35	0.00	0.90	1.00	41.54	-94.64	0.00	-23.35	Vehicle	Vehicle	-----	-751.20	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	43.36	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.24**	**5.40**
		L$_{12}$ - L$_{13}$	-591.61	-9.59	-108.86	-7.10	-18.75	0.90	1.00	-8.63	-97.97	-7.10	-18.75	Pedestrian	Vehicle	-----	-981.36	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	44.42	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**4.19**	**6.98**
		L$_{13}$ - L$_{14}$	-724.42	-152.32	-9.66	-35.12	0.00	0.90	1.00	-8.70	-137.09	0.00	-35.12	Vehicle	Vehicle	-----	-1238.77	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.11	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.46**	**5.77**
		L$_{14}$ - L$_{15}$	-747.19	10.74	-163.74	0.00	-36.29	0.90	1.00	9.67	-147.36	0.00	-36.29	Vehicle	Vehicle	-----	-1290.63	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	42.23	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.13**	**5.21**
		L$_{15}$ - L$_{16}$	-632.29	-36.58	-90.95	-9.38	-12.11	0.90	1.00	-32.92	-81.86	-9.38	-12.11	Vehicle	Vehicle	-----	-999.33	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	44.02	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**4.71**	**7.86**
		L$_{16}$ - L$_{17}$	-488.73	-45.12	-50.49	-9.25	-11.44	0.90	1.00	-40.61	-45.44	-9.25	-11.44	Vehicle	Vehicle	-----	-733.80	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**7.38**	**12.30**
		L$_{17}$ - L$_{18}$	-337.06	-50.48	-12.96	-9.73	-4.53	0.90	1.00	-11.67	-45.43	-4.53	-9.73	Pedestrian	Vehicle	-----	-536.60	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**5.16**	**8.59**
		L$_{18}$ - L$_{19}$	-183.64	-58.10	33.62	-9.59	1.37	0.90	1.00	30.26	-52.29	1.37	-9.59	Vehicle	Vehicle	-----	-352.03	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.47**	**7.46**
		L$_{19}$ - L$_{20}$	-45.76	-60.91	69.22	-9.58	7.21	0.90	1.00	62.30	-54.82	7.21	-9.58	Vehicle	Vehicle	75.50	-178.25	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.98**	**11.63**	**5.78**	**9.63**
	Structure 2	L$_{20}$ - L$_{21}$	68.06	-65.92	107.67	-9.12	11.07	0.90	1.00	96.90	-59.33	11.07	-9.12	Vehicle	Vehicle	298.43	-40.06	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**5.55**	**9.25**	**8.92**	**14.87**
		L$_{21}$ - L$_{22}$	134.01	-65.90	112.76	-8.81	13.61	0.90	1.00	101.49	-59.31	13.61	-8.81	Vehicle	Vehicle	394.10	-----	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.91**	**8.18**	-----	-----
		L$_{22}$ - L$_{23}$	122.68	-64.64	97.63	-7.57	8.54	0.90	1.00	87.86	-58.17	8.54	-7.57	Vehicle	Vehicle	349.86	-----	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.75**	**9.58**	-----	-----
		L$_{23}$ - L$_{24}$	46.89	-60.80	59.19	-7.09	6.92	0.90	1.00	53.27	-54.72	6.92	-7.09	Vehicle	Vehicle	176.38	-57.61	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**10.34**	**17.23**	**9.44**	**15.74**
		L$_{24}$ - L$_{25}$	-66.54	7.90	69.91	-4.27	3.32	0.90	1.00	62.92	7.11	3.32	-4.27	Vehicle	Vehicle	49.83	-71.09	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**7.11**	**11.85**	-----	-----
		L$_{25}$ - L$_{26}$	-205.63	-32.95	64.57	-11.77	0.00	0.90	1.00	58.11	-29.65	0.00	-11.77	Vehicle	Pedestrian	-----	-334.64	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**7.11**	**8.88**
		L$_{26}$ - L$_{27}$	-350.43	-67.83	-62.28	-18.87	0.00	0.90	1.00	-56.06	-61.05	0.00	-18.87	Vehicle	Vehicle	-----	-587.82	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	43.32	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.71**	**6.18**
		L$_{27}$ - L$_{28}$	-494.65	-101.24	51.19	-25.89	0.00	0.90	1.00	46.07	-91.11	0.00	-25.89	Vehicle	Vehicle	-----	-840.45	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	43.50	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.64**	**6.07**
		L$_{28}$ - L$_{29}$	-620.83	-65.69	-37.51	-21.97	-5.03	0.90	1.00	-33.75	-59.12	-5.03	-21.97	Pedestrian	Vehicle	-----	-938.85	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**6.46**	**8.07**
		L$_{29}$ - L$_{30}$	-716.91	-140.76	-33.02	-36.29	0.00	0.90	1.00	-29.72	-126.69	0.00	-36.29	Vehicle	Vehicle	-----	-1206.47	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.68	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.78**	**6.30

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17

Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Artic
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capicity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Verticals	Structure 1	U$_0$ - L$_0$	-93.72	-59.06	19.00	-12.32	3.44	0.90	1.00	17.10	-53.16	3.44	-12.32	Vehicle	Vehicle	-----	-237.01	1.63	16.85	15.2186	556.00	131.71	9.3438	1.9682	42.73	31.26	-447.73	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	2.83	4.72
		U$_1$ - L$_1$	-46.53	-39.66	16.44	-9.05	2.93	0.90	1.00	14.80	-35.69	2.93	-9.05	Vehicle	Vehicle	-----	-137.83	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.14	8.56
		U$_2$ - L$_2$	-0.10	-28.59	14.71	-5.68	2.84	0.90	1.00	13.24	-25.73	2.84	-5.68	Vehicle	Vehicle	28.56	-55.87	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	19.39	32.31	8.21	13.68
		U$_3$ - L$_3$	39.60	-3.84	18.50	-2.12	2.69	0.90	1.00	16.65	-3.46	2.69	-2.12	Vehicle	Pedestrian	87.54	-----	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	-----	-----	13.99	23.31	-----	-----
		U$_4$ - L$_4$	-30.20	0.00	-7.51	0.00	-3.46	0.90	1.00	0.00	-6.76	0.00	-3.46	Vehicle	Pedestrian	-----	-55.88	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	25.01	31.26
		U$_5$ - L$_5$	-130.49	1.39	-37.02	0.00	-10.23	0.90	1.00	1.25	-33.31	0.00	-10.23	Vehicle	Vehicle	-----	-241.81	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	5.31	8.85
		U$_6$ - L$_6$	-158.18	6.05	-46.57	0.00	-13.06	0.90	1.00	5.45	-41.92	0.00	-13.06	Vehicle	Vehicle	-----	-296.45	3.13	24.86	21.7294	820.36	131.71	9.9479	2.0895	42.85	31.25	-660.40	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	5.01	8.35
		U$_7$ - L$_7$	-152.32	10.75	-41.93	0.00	-13.24	0.90	1.00	9.67	-37.74	0.00	-13.24	Vehicle	Pedestrian	-----	-280.86	2.88	23.11	20.2294	762.61	131.71	11.7292	2.0414	51.71	30.46	-598.26	16.25	0.44	10.00	0.50	-----	-----	16.25	-----	-----	37.14	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	4.83	6.04
		U$_8$ - L$_8$	-455.55	-75.62	-24.18	-18.97	-12.74	0.90	1.00	-21.76	-68.06	-12.74	-18.97	Pedestrian	Vehicle	-----	-739.67	3.28	51.42	48.1423	1696.94	131.71	16.6563	4.0363	37.14	31.69	-1385.05	15.25	0.82	15.64	1.31	-----	-----	15.25	-----	-----	18.60	45.00	Pass	5.96	12.00	Pass	-----	-----	-----	-----	-----	5.38	8.96
		U$_9$ - L$_9$	-287.55	-69.05	3.30	-18.20	0.00	0.90	1.00	2.97	-62.14	0.00	-18.20	Vehicle	Vehicle	-----	-508.45	3.50	31.56	28.0625	1041.56	131.71	12.1563	2.5582	42.77	31.26	-838.65	16.25	0.50	12.00	0.63	-----	-----	16.25	-----	-----	32.50	44.91	Pass	9.60	12.00	Pass	-----	-----	-----	-----	-----	3.45	5.75
		U$_{10}$ - L$_{10}$	-276.32	-69.40	-1.92	-16.17	-1.37	0.90	1.00	-1.73	-62.46	-1.37	-16.17	Pedestrian	Vehicle	-----	-494.54	2.76	36.13	33.3715	1192.34	131.71	10.7083	2.3777	40.53	31.44	-965.49	16.16	0.83	11.50	0.80	-----	-----	16.16	-----	-----	19.50	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	4.48	7.47
		U$_{11}$ - L$_{11}$	-232.59	-63.42	1.88	-14.41	0.00	0.90	1.00	1.70	-57.08	0.00	-14.41	Vehicle	Vehicle	-----	-426.04	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.30	7.16
		U$_{12}$ - L$_{12}$	-178.43	-53.57	1.19	-11.20	0.00	0.90	1.00	1.07	-48.21	0.00	-11.20	Vehicle	Vehicle	-----	-336.41	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	-----	-----	16.25	-----	-----	32.50	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	4.41	7.34
		U$_{13}$ - L$_{13}$	-127.74	-22.75	1.07	-7.88	0.00	0.90	1.00	0.96	-20.47	0.00	-7.88	Vehicle	Pedestrian	-----	-212.13	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	7.13	8.91
		U$_{14}$ - L$_{14}$	-30.39	-7.66	-8.16	-3.03	0.00	0.90	1.00	-6.90	-7.35	0.00	-3.03	Vehicle	Pedestrian	-----	-56.38	0.00	16.85	16.8486	556.00	131.71	9.2605	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	24.22	30.28
		U$_{15}$ - L$_{15}$	-28.94	6.52	-20.81	1.55	-4.54	0.90	1.00	5.87	-18.73	1.55	-4.54	Vehicle	Vehicle	-----	-78.19	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	10.07	16.78
		U$_{16}$ - L$_{16}$	-76.03	6.38	-26.54	1.39	-7.08	0.90	1.00	5.74	-23.89	1.39	-7.08	Vehicle	Vehicle	-----	-150.60	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.66	11.11
		U$_{17}$ - L$_{17}$	-161.89	6.95	-40.01	1.30	-10.66	0.90	1.00	6.25	-36.01	1.30	-10.66	Vehicle	Vehicle	-----	-288.47	0.00	20.66	20.6644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	4.16	6.93
		U$_{18}$ - L$_{18}$	-190.28	5.97	-41.77	1.12	-12.71	0.90	1.00	5.37	-37.59	1.12	-12.71	Vehicle	Pedestrian	-----	-329.10	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	5.33	6.66
		U$_{19}$ - L$_{19}$	-228.17	5.11	-43.28	0.97	-14.98	0.90	1.00	4.60	-38.95	0.97	-14.98	Vehicle	Pedestrian	-----	-384.26	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	5.76	7.20
		U$_{20}$ - L$_{20}$	-242.83	4.59	-42.30	0.95	-15.63	0.90	1.00	4.13	-38.07	0.95	-15.63	Vehicle	Pedestrian	-----	-402.94	0.00	30.63	30.6305	1010.81	131.71	20.3229	2.8427	64.34	29.06	-756.66	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	5.05	6.32
		U$_0$ - L$_0$	-303.03	-78.50	17.00	-15.08	2.22	0.90	1.00	15.30	-70.65	2.22	-15.08	Vehicle	Vehicle	-----	-547.02	0.00	33.27	33.2657	1097.77	131.71	19.1510	2.8573	60.32	29.54	-835.23	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	44.45	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	2.88	4.80
		U$_1$ - L$_1$	-268.78	-68.22	17.28	-13.67	2.12	0.90	1.00	15.55	-61.39	2.12	-13.67	Vehicle	Vehicle	-----	-482.43	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.95	6.58
		U$_2$ - L$_2$	-220.87	-63.77	18.55	-12.32	2.34	0.90	1.00	16.70	-57.39	2.34	-12.32	Vehicle	Vehicle	-----	-411.48	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.70	6.16
		U$_3$ - L$_3$	-175.23	-57.11	19.88	-10.35	2.49	0.90	1.00	17.89	-51.40	2.49	-10.35	Vehicle	Vehicle	-----	-339.16	0.00	22.73	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	45.00	Pass	4.91	12.00	Pass	-----	-----	-----	-----	-----	3.23	5.38
		U$_4$ - L$_4$	-82.08	-38.79	17.07	-6.62	2.21	0.90	1.00	15.36	-34.91	2.21	-6.62	Vehicle	Vehicle	-----	-182.33	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	4.42	7.36
		U$_5$ - L$_5$	-19.89	-27.36	16.84	-4.16	2.23	0.90	1.00	15.16	-24.63	2.23	-4.16	Vehicle	Vehicle	6.98	-79.22	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	17.72	29.53	7.81	13.02
		U$_6$ - L$_6$	60.32	-7.57	12.21	-0.47	1.75	0.90	1.00	10.98	-6.81	1.75	-0.47	Vehicle	Vehicle	102.22	-----	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	-----	-----	20.07	33.44	-----	-----
		U$_7$ - L$_7$	-41.77	-0.92	-6.63	0.00	-2.49	0.90	1.00	-0.82	-5.97	0.00	-2.49	Vehicle	Pedestrian	-----	-68.05	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	28.27	35.33
		U$_8$ - L$_8$	-189.01	0.00	-40.86	0.00	-8.38	0.90	1.00	0.00	-36.77	0.00	-8.38	Vehicle	Vehicle	-----	-325.39	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	-----	-----	15.75	-----	-----	36.00	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	5.57	9.29
		U$_9$ - L$_9$	-253.99	1.59	-56.93	0.00	-10.55	0.90	1.00	1.43	-51.24	0.00	-10.55	Vehicle	Vehicle	-----	-441.21	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	5.12	8.53
		U$_{10}$ - L$_{10}$	-290.02	3.58	-67.03	0.00	-12.18	0.90	1.00	3.22	-60.32	0.00	-12.18	Vehicle	Vehicle	-----	-507.73	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.86	8.10
		U$_{11}$ - L$_{11}$	-312.18	10.32	-68.20	0.00	-12.59	0.90	1.00	9.28	-61.38	0.00	-12.59	Vehicle	Vehicle	-----	-538.81	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.42	7.37
		U$_{12}$ - L$_{12}$	-327.28	15.51	-64.90	-0.93	-13.01	0.90	1.00	13.96	-58.41	-0.93	-13.01	Vehicle	Vehicle	-----	-552.00	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.87	8.12
		U$_{13}$ - L$_{13}$	-277.21	21.22	-51.80	0.00	-11.39	0.90	1.00	19.10	-46.62	0.00	-11.39	Vehicle	Vehicle	-----	-461.38	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	5.31	8.86
		U$_{14}$ - L$_{14}$	-505.44	-53.48	-34.34	-11.34	-9.95	0.90	1.00	-30.90	-48.13	-9.95	-11.34	Vehicle	Vehicle	-----	-761.35	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	-----	-----	-----	6.81	11.35
		U$_{15}$ - L$_{15}$	-232.94	-65.77	11.60	-11.17	0.00	0.90	1.00	10.44	-59.19	0.00	-11.17	Vehicle	Vehicle	-----	-431.07	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.63	7.72
		U$_{16}$ - L$_{16}$	-260.12	-70.48	9.59	-12.63	0.83	0.90	1.00	8.63	-63.43	0.83	-12.63	Vehicle	Vehicle	-----	-475.58	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.84	6.40
		U$_{17}$ - L$_{17}$	-228.24	-66.29	8.81	-11.76	0.66	0.90	1.00	7.93	-59.66	0.66	-11.76	Vehicle	Vehicle	-----	-425.98	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.97	6.62
		U$_{18}$ - L$_{18}$	-209.27	-60.53	4.10	-11.28	-0.03	0.90	1.00	3.69	-54.47	-0.03	-11.28	Vehicle	Vehicle	-----	-390.08	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.05	6.75
		U$_{19}$ - L$_{19}$	-166.55	-52.28	5.25	-9.53	-0.07	0.90	1.00	4.73	-47.05	-0.07	-9.53	Vehicle	Vehicle	-----	-318.46	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	4.40	7.33
	Structure 2	U$_{20}$ - L$_{20}$	-113.95	-30.88	5.11	-7.50	-0.43	0.90	1.00	4.59	-27.79	-0.43	-7.50	Vehicle	Vehicle	-----	-208.34	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	5.64	9.40
		U$_{21}$ - L$_{21}$	-62.76	-21.10	5.07	-5.22	-0.44	0.90	1.00	4.56	-18.99	-0.44	-5.22	Vehicle	Vehicle	-----	-122.74	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	8.78	14.63
		U$_{22}$ - L$_{22}$	-38.94	-8.44	-8.54	-2.15	-2.04	0.90	1.00	-7.60	-7.68	-2.04	-2.15	Vehicle	Vehicle	-----	-67.27	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	23.65	39.42
		U$_{23}$ - L$_{23}$	-74.43	4.28	-29.27	0.48	-6.10	0.90	1.00	3.86	-26.34	0.48	-6.10	Vehicle	Vehicle	-----	-153.83	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.06	10.10
		U$_{24}$ - L$_{24}$	-121.36	4.77	-51.91	0.37	-8.17	0.90	1.00	4.29	-46.72	0.37	-8.17	Vehicle	Vehicle	-----	-259.00	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	3.26	5.43
		U$_{25}$ - L$_{25}$	-169.12	7.85	-59.64	0.43	-9.94	0.90	1.00	7.06	-53.68	0.43	-9.94	Vehicle	Vehicle	-----	-336.16	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	3.82	6.37
		U$_{26}$ - L$_{26}$	-207.97	7.14	-62.38	0.14	-11.42	0.90	1.00	6.42	-56.14	0.14	-11.42	Vehicle	Vehicle	-----	-392.01	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.95	6.58
		U$_{27}$ - L$_{27}$	-219.96	15.98	-59.84	0.16	-11.49	0.90	1.00	14.38	-53.85	0.16	-11.49	Vehicle	Vehicle	-----	-402.63	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.49	7.49
		U$_{28}$ - L$_{28}$	-240.91	20.31	-50.56	-0.25	-11.17	0.90	1.00	18.28	-45.50	-0.25	-11.17	Vehicle	Vehicle	-----	-411.77	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	5.61	9.34
		U$_{29}$ - L$_{29}$	-202.73	28.13	-49.77	0.00	-10.35	0.90	1.00	25.32	-44.79	0.00	-10.35	Vehicle	Vehicle	-----	-360.59	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	6.53	10.88
		U$_{30}$ - L$_{30}$	-518.05	-59.02	-21.87	-13.79	-8.23	0.90	1.00	-19.68	-53.12	-8.23	-13.79	Pedestrian	Vehicle	-----	-788.55	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Location	Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	Impact & Pedestrian Load MAX	Impact & Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capacity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Diagonals																																														
Structure 1	U_0 - L_1	87.66	62.34	-25.80	14.00	-4.60	0.90	1.00	56.11	-23.22	14.00	-4.60	Vehicle	Vehicle	235.53	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	**5.33**	**8.89**	-----	-----
	U_1 - L_2	23.90	22.77	22.91	9.20	-4.71	0.90	1.00	20.62	20.49	9.20	-4.71	Pedestrian	Vehicle	79.52	-----	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**10.83**	**13.54**	-----	-----
	U_2 - L_3	-49.02	0.00	-28.95	0.00	-1.00	0.90	1.00	0.00	-26.06	0.00	-1.00	Vehicle	Vehicle	-----	-120.18	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**6.57**	**10.94**
	U_3 - L_4	-108.88	-6.74	-21.43	-4.20	-2.10	0.90	1.00	-6.06	-19.29	-2.10	-4.20	Pedestrian	Vehicle	-----	-183.33	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**7.08**	**11.80**
	U_4 - L_4	153.12	47.01	5.30	3.11	7.00	0.90	1.00	42.30	4.77	7.00	3.11	Vehicle	Pedestrian	290.71	-----	0.00	20.66	20.6644	681.93	131.71	11.6953	2.0011	52.60	30.37	-533.41	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**5.27**	**8.78**	-----	-----
	U_5 - L_5	186.35	48.57	0.00	13.44	0.00	0.90	1.00	43.72	0.00	13.44	0.00	Vehicle	Vehicle	336.97	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**6.37**	**10.62**	-----	-----
	U_6 - L_6	177.52	40.06	-12.41	14.13	0.00	0.90	1.00	36.05	-11.17	14.13	0.00	Pedestrian	Vehicle	312.32	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**7.54**	**9.43**	-----	-----
	U_7 - L_7	173.18	44.95	-12.21	13.87	0.00	0.90	1.00	40.45	-10.99	13.87	0.00	Pedestrian	Vehicle	313.40	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**7.03**	**8.79**	-----	-----
	U_8 - L_8	328.11	74.41	-2.92	19.31	0.00	0.90	1.00	66.97	-2.63	19.31	0.00	Vehicle	Vehicle	571.64	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.68**	**9.47**	-----	-----
	U_9 - L_{10}	339.70	82.29	-3.07	19.74	0.00	0.90	1.00	74.06	-2.76	19.74	0.00	Vehicle	Vehicle	602.07	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.04**	**8.41**	-----	-----
	U_{10} - L_{11}	313.22	80.66	0.00	18.15	0.00	0.90	1.00	72.59	0.00	18.15	0.00	Vehicle	Vehicle	564.46	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**4.94**	**8.23**	-----	-----
	U_{11} - L_{12}	270.68	73.93	0.00	14.84	0.00	0.90	1.00	66.54	0.00	14.84	0.00	Vehicle	Vehicle	496.06	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.57**	**7.62**	-----	-----
	U_{12} - L_{13}	194.17	31.81	-1.44	10.79	0.00	0.90	1.00	28.63	-1.29	10.79	0.00	Pedestrian	Vehicle	316.47	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**8.87**	**11.08**	-----	-----
	U_{13} - L_{14}	123.57	7.32	5.38	2.11	3.86	0.90	1.00	6.59	4.84	3.86	2.11	Pedestrian	Pedestrian	177.61	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**23.29**	**29.11**	-----	-----
	U_{15} - L_{14}	-16.32	-1.19	-1.43	0.00	-0.87	0.90	1.00	-1.07	-1.29	0.00	-0.87	Vehicle	Pedestrian	-----	-24.73	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**115.41**	**144.26**
	U_{16} - L_{15}	59.12	28.34	-8.87	6.08	-2.09	0.90	1.00	25.51	-7.99	6.08	-2.09	Vehicle	Vehicle	132.12	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.67**	**14.45**	-----	-----
	U_{17} - L_{16}	172.14	46.33	-9.67	9.93	-1.86	0.90	1.00	41.70	-8.70	9.93	-1.86	Vehicle	Vehicle	314.13	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**5.07**	**8.45**	-----	-----
	U_{18} - L_{17}	210.78	47.59	-8.22	12.51	-1.53	0.90	1.00	42.83	-7.40	12.51	-1.53	Vehicle	Vehicle	366.81	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**6.16**	**10.27**	-----	-----
	U_{19} - L_{18}	242.64	50.08	-6.57	13.73	-1.21	0.90	1.00	45.07	-5.91	13.73	-1.21	Vehicle	Vehicle	413.07	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**6.22**	**10.37**	-----	-----
	U_{20} - L_{19}	257.76	45.59	-5.39	15.70	-1.03	0.90	1.00	41.03	-4.85	15.70	-1.03	Pedestrian	Vehicle	427.27	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**6.38**	**7.98**	-----	-----
	U_0 - L_1	298.99	70.93	-18.04	14.21	-2.21	0.90	1.00	63.84	-16.23	14.21	-2.21	Vehicle	Vehicle	527.00	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.50**	**7.50**	-----	-----
	U_1 - L_2	284.21	75.29	-21.52	14.05	-2.66	0.90	1.00	67.76	-19.37	14.05	-2.66	Vehicle	Vehicle	516.29	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.37**	**7.28**	-----	-----
	U_2 - L_3	221.42	65.84	-22.83	11.83	-2.85	0.90	1.00	59.25	-20.55	11.83	-2.85	Vehicle	Vehicle	416.23	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.35**	**7.24**	-----	-----
	U_3 - L_4	178.30	63.43	-25.79	10.08	-3.23	0.90	1.00	57.09	-23.21	10.08	-3.23	Vehicle	Vehicle	355.48	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**4.19**	**6.99**	-----	-----
	U_4 - L_5	53.50	36.26	-21.86	5.37	-2.87	0.90	1.00	32.63	-19.67	5.37	-2.87	Vehicle	Vehicle	140.25	-----	0.00	16.85	16.8486	556.00	131.71	15.3958	1.9682	70.40	28.29	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**6.88**	**11.47**	-----	-----
	U_5 - L_6	-16.51	26.44	-21.73	2.23	-1.22	0.90	1.00	23.79	-19.56	2.23	-1.22	Vehicle	Vehicle	30.08	-63.85	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**11.20**	**18.67**	**9.49**	**15.81**
	U_6 - L_7	-133.21	4.60	-25.03	0.00	-5.36	0.90	1.00	4.14	-22.52	0.00	-5.36	Vehicle	Vehicle	-----	-221.97	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	**6.02**	**10.04**
	U_7 - L_7	208.77	33.38	-2.53	8.33	0.00	0.90	1.00	30.04	-2.28	8.33	0.00	Vehicle	Vehicle	336.49	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**7.88**	**13.13**	-----	-----
	U_8 - L_8	289.58	44.65	7.06	10.70	0.00	0.90	1.00	40.18	6.35	10.70	0.00	Vehicle	Vehicle	463.51	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**6.28**	**10.47**	-----	-----
	U_{10} - L_9	327.97	76.44	0.00	12.66	0.00	0.90	1.00	68.80	0.00	12.66	0.00	Vehicle	Vehicle	575.42	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.92**	**6.53**	-----	-----
	U_{11} - L_{10}	349.25	75.08	-7.84	12.70	0.00	0.90	1.00	67.57	-7.06	12.70	0.00	Vehicle	Vehicle	600.44	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.40**	**7.33**	-----	-----
	U_{12} - L_{11}	358.20	70.29	-11.74	13.52	0.00	0.90	1.00	63.26	-10.57	13.52	0.00	Vehicle	Vehicle	602.72	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.61**	**7.69**	-----	-----
	U_{13} - L_{12}	307.75	64.95	-23.74	12.26	-0.24	0.90	1.00	58.45	-21.36	12.26	-0.24	Vehicle	Vehicle	526.72	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.82**	**8.04**	-----	-----
	U_{14} - L_{13}	260.20	45.38	-20.11	9.65	0.00	0.90	1.00	40.84	-18.10	9.65	0.00	Vehicle	Vehicle	426.76	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**7.60**	**12.67**	-----	-----
	U_{15} - L_{14}	208.42	56.73	-16.43	11.04	-2.51	0.90	1.00	51.06	-14.78	11.04	-2.51	Vehicle	Vehicle	381.57	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.20**	**8.66**	-----	-----
	U_{16} - L_{15}	243.55	70.59	-13.56	11.54	-1.48	0.90	1.00	63.53	-12.21	11.54	-1.48	Vehicle	Vehicle	454.27	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.84**	**6.41**	-----	-----
	U_{16} - L_{17}	255.86	70.44	-9.26	12.23	0.00	0.90	1.00	63.39	-8.33	12.23	0.00	Vehicle	Vehicle	469.98	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**4.30**	**7.17**	-----	-----
	U_{17} - L_{18}	235.29	70.80	-10.52	11.35	0.00	0.90	1.00	63.72	-9.47	11.35	0.00	Vehicle	Vehicle	443.94	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.91**	**6.52**	-----	-----
	U_{18} - L_{19}	212.11	62.59	-9.30	11.09	0.00	0.90	1.00	56.33	-8.37	11.09	0.00	Vehicle	Vehicle	397.79	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.67**	**7.78**	-----	-----
	U_{19} - L_{20}	168.24	40.82	-10.03	9.14	0.00	0.90	1.00	36.73	-9.02	9.14	0.00	Vehicle	Vehicle	298.30	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**7.11**	**11.84**	-----	-----
Structure 2	U_{26} - L_{21}	97.26	27.18	-6.75	6.66	0.00	0.90	1.00	24.46	-6.08	6.66	0.00	Vehicle	Vehicle	179.43	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.11**	**13.51**	-----	-----
	U_{21} - L_{22}	30.60	1.33	-9.15	0.58	-2.18	0.90	1.00	1.20	-8.23	0.58	-2.18	Pedestrian	Vehicle	42.67	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**178.78**	**223.47**	-----	-----
	U_{23} - L_{22}	49.78	23.47	-2.46	5.11	-0.95	0.90	1.00	21.12	-2.21	5.11	-0.95	Vehicle	Pedestrian	110.47	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**10.74**	**17.89**	-----	-----
	U_{24} - L_{23}	115.07	39.32	-4.19	8.00	-0.72	0.90	1.00	35.39	-3.77	8.00	-0.72	Vehicle	Vehicle	226.26	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.30**	**8.83**	-----	-----
	U_{25} - L_{24}	179.22	69.73	1.28	10.10	0.00	0.90	1.00	62.76	1.15	10.10	0.00	Vehicle	Vehicle	368.96	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**4.05**	**6.76**	-----	-----
	U_{26} - L_{25}	220.97	72.69	-8.48	11.89	0.00	0.90	1.00	65.42	-7.63	11.89	0.00	Vehicle	Vehicle	429.01	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.94**	**6.57**	-----	-----
	U_{27} - L_{26}	234.87	68.31	-18.32	11.45	0.00	0.90	1.00	61.48	-16.49	11.45	0.00	Vehicle	Vehicle	438.52	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.06**	**6.76**	-----	-----
	U_{28} - L_{27}	253.15	64.35	-18.31	12.25	0.00	0.90	1.00	57.91	-16.47	12.25	0.00	Vehicle	Vehicle	454.56	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**4.74**	**7.89**	-----	-----
	U_{29} - L_{28}	215.91	54.66	-32.19	10.20	0.61	0.90	1.00	49.19	-28.97	10.20	0.61	Vehicle	Vehicle	387.27	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.30**	**8.84**	-----	-----
	U_{30} - L_{29}	180.73	43.29	-27.23	8.49	0.00	0.90	1.00	38.96	-24.51	8.49	0.00	Vehicle	Vehicle	319.36	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**7.24**	**12.06**	-----	-----
	U_{31} - L_{31}	294.99	62.82	-12.61	12.90	0.00	0.90	1.00	56.54	-11.35	12.90	0.00	Vehicle	Vehicle	505.98	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.12**	**8.54**	-----	-----
	U_{31} - L_{32}	342.70	71.74	-10.39	13.70	-0.55	0.90	1.00	64.56	-9.35	13.70	-0.55	Vehicle	Vehicle	585.40	-----	0.00	30.63	30.6305	1010.81	131.71	17.8750	2.8427	56.59	29.95	-779.87	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.04**	**6.74**	-----	-----
	U_{32} - L_{33}	363.39	73.85	-5.90	14.16	0.00	0.90	1.00	66.47	-5.31	14.16	0.00	Vehicle	Vehicle	616.42	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.34**	**7.24**	-----	-----
	U_{33} - L_{34}	349.50	52

Moment (End) - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: **HS20 Lane**
Condition: **As-Built**

Vehicle Load Factors: DL Factor: 1.30, LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30, LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1998

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Min) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	U_0-L_1	-129.89	-23.02	0.01	1.71	-2.34	-4.83	0.00	18.47	-25.24	-52.12
	U_0-L_2	-54.81	-01.14	0.28	3.04	-1.46	-9.18	0.00	32.88	-15.80	-99.15
	U_0-L_3	-54.81	44.59	0.28	44.59	-4.67	-4.33	0.00	32.88	-14.35	-47.58
	U_1-L_1	-52.27	61.68	2.75	4.32	-5.82	-12.55	0.00	29.71	46.67	-62.87
	U_1-L_2	-27.43	50.17	3.04	3.04	-1.74	-40.29	0.00	32.78	34.54	-104.74
	U_1-L_3	1.19	145.97	-2.27	49.99	-2.29	-1.16	0.00	-24.54	53.86	-24.73
	U_2-L_2	34.94	53.27	3.80	2.20	-3.67	-9.64	0.00	41.02	25.33	-38.19
	U_2-L_3	-70.13	598.66	-0.22	20.92	0.00	0.00	0.00	-67.17	225.56	0.00
	L_1-L_2	528.73	-128.77	0.33	0.71	9.97	-6.18	0.00	635.00	-157.77	920.62
	L_2-L_3	69.10	44.97	-1.60	2.93	1.86	-3.53	0.00	17.90	31.65	21.11
	L_3-L_4	101.46	-177.08	2.99	2.52	2.14	-8.67	0.00	32.27	27.26	23.07
	L_4-L_5	48.28	-160.13	2.46	2.12	-2.21	-6.47	0.00	37.28	-25.29	-97.23
	L_5-L_6	-56.63	-218.18	2.73	1.00	-1.26	-5.88	0.00	29.61	-12.83	-14.72
	L_6-L_7	-113.99	-340.42	1.95	1.95	-3.37	-24.25	0.00	19.65	-18.37	-64.47
	L_7-L_8	-287.89	-237.50	2.39	1.38	-23.81	-7.53	0.00	25.86	14.91	-257.09
	L_8-L_9	-196.26	-337.79	1.23	0.58	-6.26	-7.42	0.00	0.58	-6.26	-7.42
	L_9-L_{10}	-295.52	-154.89	0.90	0.26	-12.16	-3.86	0.00	9.71	7.82	-131.37
	L_{10}-L_{11}	-190.08	-29.82	-7.45	2.52	-1.89	-0.81	0.00	-80.42	27.25	-26.41
	L_{11}-L_{12}	-179.81	-60.24	7.75	0.69	-2.37	-1.34	0.00	-83.66	2.19	-2.94
	L_{12}-L_{13}	-290.19	260.74	-9.14	15.05	-1.58	-2.23	0.00	-59.17	691.02	-362.12
Structure 2	U_0-L_1	-27.02	-172.57	-0.53	1.66	-1.10	-8.36	0.00	-47.46	-185.56	-60.87
	U_0-L_2	-25.34	-194.81	-0.31	1.33	-1.10	-8.36	0.00	-40.26	-217.05	-6.30
	U_1-L_2	-52.13	-282.61	-0.87	2.31	-0.06	-12.62	0.00	-7.18	-24.97	-0.65
	U_1-L_3	-33.19	-287.61	-0.87	2.31	-0.06	-12.62	0.00	-83.34	-313.29	-69.18
	U_2-L_3	-360.73	-390.17	0.35	3.82	-7.68	-18.83	0.00	3.76	41.30	-82.91
	U_2-L_4	-403.61	-390.17	2.89	3.82	-7.68	-18.83	0.00	-46.03	-441.47	-648.62
	L_1-L_2	-349.76	-208.76	5.21	5.06	-13.49	-31.12	0.00	56.31	54.65	-149.72
	L_2-L_3	-253.89	-280.84	4.01	5.58	-31.78	-12.15	0.00	43.26	60.30	-343.20
	L_3-L_4	-330.50	-281.43	5.58	4.01	-12.15	-31.78	0.00	60.30	43.26	-137.72
	L_4-L_5	-237.13	-39.43	5.81	7.26	-9.64	-4.06	0.00	62.72	78.40	-104.10
	L_5-L_6	-152.28	-52.20	6.94	5.21	-13.06	-2.68	0.00	77.35	57.04	-137.37
	L_6-L_7	-116.81	170.72	-11.08	7.43	-3.89	-0.75	0.00	-119.75	80.19	-41.96
	L_7-L_8	-53.53	194.81	-7.43	11.08	-0.75	-3.89	0.00	-81.14	91.61	-6.64
	L_8-L_9	-211.75	1121.87	11.93	41.87	0.00	0.00	0.00	-128.89	452.23	0.00
	L_9-L_{10}	-1023.87	-26.76	-9.78	2.25	40.82	-4.25	0.00	-8.41	24.25	440.87
	L_{10}-L_{11}	9.93	54.04	-3.27	2.80	18.51	-1.51	0.00	2.80	18.51	-1.51
	L_{11}-L_{12}	-27.33	25.32	2.61	4.33	5.72	-6.87	0.00	28.18	46.73	61.81
	L_{12}-L_{13}	-14.17	-53.83	3.26	4.56	-5.03	-6.87	0.00	39.20	67.74	108.40
Structure 3	U_0-L_1	156.48	-8.75	4.10	5.53	2.61	-8.06	0.00	44.25	59.65	27.57
	U_0-L_2	48.44	11.25	4.99	4.83	-2.87	-6.36	0.00	53.41	52.15	-30.97
	U_1-L_2	-52.46	-69.91	4.47	5.50	-8.93	-23.92	0.00	48.30	59.35	-96.39
	U_1-L_3	-59.53	-69.91	4.47	5.50	-8.93	-23.92	0.00	48.30	59.35	-96.39
	U_2-L_3	-48.21	-31.51	4.40	4.10	-3.95	-6.24	0.00	47.53	44.31	-42.61
	U_2-L_4	-10.71	137.69	4.82	3.34	-2.05	-1.37	0.00	52.03	36.04	-22.10
	L_1-L_2	-57.19	-122.84	-12.05	6.78	-2.93	-0.29	0.00	-130.17	73.21	-31.64
	L_2-L_3	-85.58	-3.84	-4.36	1.24	-5.26	-0.99	0.00	-47.12	13.35	-56.75
	L_3-L_4	-14.12	816.00	-1.99	1.99	-0.44	-0.44	0.00	-78.99	812.34	0.00
	L_4-L_5	823.61	100.42	0.37	3.26	41.19	-9.54	0.00	3.96	35.21	444.87
	L_5-L_6	29.76	12.74	0.87	3.71	4.07	-11.48	0.00	6.41	36.68	88.17
	L_6-L_7	-79.26	-230.76	5.87	3.71	-4.07	-11.48	0.00	63.43	40.02	-43.98
	L_7-L_8	-58.29	-21.41	3.23	5.31	-11.23	-4.66	0.00	43.75	63.23	-123.54
	L_8-L_9	-84.35	-278.75	6.74	5.07	-28.63	-12.75	0.00	61.94	54.73	-311.33
	L_9-L_{10}	-138.80	-31.38	4.27	7.17	-12.75	-28.63	0.00	54.73	61.94	-137.71
	L_{10}-L_{11}	-275.08	-274.62	2.64	1.07	-21.38	-10.75	0.00	28.51	11.55	-230.95
	L_{11}-L_{12}	-257.08	-269.15	2.01	0.74	-14.21	-7.66	0.00	21.71	8.04	-153.41
	L_{12}-L_{13}	-154.75	-83.24	1.15	1.17	-7.66	-14.21	0.00	8.04	21.71	-82.71
	L_{13}-L_{14}	-154.97	-33.11	-2.41	0.11	-6.77	-2.49	0.00	-25.57	1.23	-73.16
	L_{14}-L_{15}	-127.01	-134.97	-1.01	2.41	-2.49	-6.77	0.00	-27.72	25.57	-21.06
	L_{15}-L_{16}	40.07	-167.86	0.45	0.46	-1.56	-5.27	0.00	-4.84	4.95	-16.80
	L_{16}-L_{17}	-10.53	-132.37	-0.36	0.57	-2.24	-7.13	0.00	-3.90	6.18	24.15
	L_{17}-L_{18}	-140.16	-260.93	0.26	0.77	-3.29	-9.36	0.00	2.78	8.36	-30.49
	L_{18}-L_{19}	-187.10	-276.08	1.31	1.82	-7.97	-24.57	0.00	14.16	19.65	-86.03
	L_{19}-L_{20}	-322.62	-140.48	2.61	1.31	-24.57	-7.97	0.00	19.65	14.16	-265.40
	L_{20}-L_{21}	-162.95	-104.84	0.99	2.85	-3.58	-3.71	0.00	10.70	30.86	-38.61
	L_{21}-L_{22}	-147.84	-26.72	2.17	3.39	-6.58	-0.93	0.00	23.38	36.61	-75.38
	L_{22}-L_{23}	-83.86	-61.93	1.97	2.45	-3.63	-2.56	0.00	20.98	26.45	-39.92
	L_{23}-L_{24}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{24}-L_{25}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{25}-L_{26}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{26}-L_{27}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{27}-L_{28}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{28}-L_{29}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{29}-L_{30}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{30}-L_{31}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{31}-L_{32}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{32}-L_{33}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{33}-L_{34}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{34}-L_{35}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{35}-L_{36}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{36}-L_{37}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{37}-L_{38}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{38}-L_{39}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{39}-L_{40}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{40}-L_{41}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{41}-L_{42}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{42}-L_{43}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{43}-L_{44}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{44}-L_{45}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{45}-L_{46}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{46}-L_{47}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{47}-L_{48}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{48}-L_{49}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{49}-L_{50}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{50}-L_{51}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{51}-L_{52}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{52}-L_{53}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{53}-L_{54}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{54}-L_{55}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{55}-L_{56}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{56}-L_{57}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{57}-L_{58}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{58}-L_{59}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{59}-L_{60}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{60}-L_{61}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{61}-L_{62}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{62}-L_{63}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{63}-L_{64}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{64}-L_{65}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{65}-L_{66}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{66}-L_{67}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{67}-L_{68}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{68}-L_{69}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{69}-L_{70}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{70}-L_{71}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{71}-L_{72}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{72}-L_{73}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{73}-L_{74}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{74}-L_{75}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{75}-L_{76}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{76}-L_{77}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{77}-L_{78}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{78}-L_{79}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{79}-L_{80}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{80}-L_{81}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{81}-L_{82}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{82}-L_{83}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{83}-L_{84}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{84}-L_{85}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{85}-L_{86}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{86}-L_{87}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{87}-L_{88}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{88}-L_{89}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{89}-L_{90}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{90}-L_{91}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{91}-L_{92}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{92}-L_{93}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{93}-L_{94}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{94}-L_{95}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{95}-L_{96}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{96}-L_{97}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{97}-L_{98}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{98}-L_{99}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{99}-L_{100}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{100}-L_{101}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{101}-L_{102}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{102}-L_{103}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{103}-L_{104}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{104}-L_{105}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{105}-L_{106}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{106}-L_{107}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{107}-L_{108}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{108}-L_{109}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{109}-L_{110}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{110}-L_{111}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{111}-L_{112}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{112}-L_{113}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{113}-L_{114}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{114}-L_{115}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{115}-L_{116}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{116}-L_{117}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{117}-L_{118}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{118}-L_{119}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{119}-L_{120}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{120}-L_{121}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{121}-L_{122}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{122}-L_{123}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{123}-L_{124}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{124}-L_{125}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{125}-L_{126}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{126}-L_{127}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{127}-L_{128}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{128}-L_{129}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{129}-L_{130}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{130}-L_{131}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{131}-L_{132}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{132}-L_{133}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{133}-L_{134}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{134}-L_{135}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{135}-L_{136}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{136}-L_{137}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{137}-L_{138}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{138}-L_{139}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{139}-L_{140}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{140}-L_{141}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{141}-L_{142}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{142}-L_{143}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{143}-L_{144}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{144}-L_{145}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{145}-L_{146}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{146}-L_{147}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{147}-L_{148}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{148}-L_{149}	10.71	-52.69	3.46	1.35	-6.18	-5.53	0.00	37.40	14.61	-66.78
	L_{149}-L_{150}	-8.36	-55.45	4.76	1.35	-6.18	-5.53	0.00	51.44	14.61	-66.78
	L_{150}-L_{151}	10.71	-52.69

Moment (End) - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
Allowable Capacities for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	L_0-L_1	-44.17	-99.07	0.96	1.01	3.23	-3.33				
	L_1-L_2	-131.02	-112.64	-0.39	2.44	-0.12	-6.78				
	L_2-L_3	-52.45	-79.76	2.63	-4.98	-6.54	-70.60				
	L_3-L_4	18.36	16.12	1.40	5.05	-4.81	-12.11				
	L_4-L_5	-68.34	210.22	0.00	0.00	-36.12	-8.78				
	L_5-L_6	8.36	229.14	-1.48	6.10	-2.13	-1.66				
	L_6-L_7	61.83	137.52	-3.86	2.76	3.81	-1.54				
	L_7-L_8	1.61	469.41	-0.57	18.68	0.00	0.00				
	L_8-L_9	439.88	-25.12	2.53	0.20	8.63	-1.65				
	L_9-L_{10}	204.03	-117.02	-2.36	2.65	4.12	-3.16				
	L_{10}-L_{11}	168.12	-117.13	4.23	2.04	2.43	-4.73				
	L_{11}-L_{12}	239.72	-27.68	3.98	1.28	5.13	-6.66				
	L_{12}-L_{13}	-19.73	-128.50	2.64	1.31	-1.54	-3.64				
	L_{13}-L_{14}	175.78	-425.21	2.05	1.79	1.28	-17.80				
	L_{14}-L_{15}	-409.28	-20.70	1.16	1.38	-2.13	-6.14				
	L_{15}-L_{16}	-209.39	-318.68	0.69	0.65	-7.38	-7.10				
	L_{16}-L_{17}	374.86	83.54	0.59	1.54	-6.24	-4.24				
	L_{17}-L_{18}	-171.07	19.86	-4.66	2.45	-1.20	-0.84				
	L_{18}-L_{19}	-208.33	253.78	-6.06	3.55	0.46	-0.61				
	L_{19}-L_{20}	-84.78	1.02	0.41	3.42	0.37	-0.39				
	L_0-L_{21}	10.35	-213.29	-0.58	1.31	3.47	-7.62				
	L_{21}-L_1	84.56	-247.73	0.41	1.16	3.75	-7.67				
	L_1-L_{22}	-0.36	-194.33	-0.66	1.42	1.31	-7.54				
	L_{22}-L_2	-39.61	-183.71	-0.57	1.42	0.61	-7.47				
	L_2-L_{23}	-287.80	-299.08	-0.13	2.41	-5.41	-11.06				
	L_{23}-L_3	-163.71	-183.52	-0.85	3.23	-6.45	-12.56				
	L_3-L_{24}	-467.54	-273.29	3.53	5.06	-16.72	-22.97				
	L_{24}-L_4	-310.55	-45.89	4.14	7.65	-22.09	-8.29				
	L_4-L_{25}	-469.28	-20.70	4.13	7.65	-21.98	-4.19				
	L_{25}-L_5	-209.39	-318.68	0.69	0.65	-7.38	-7.10				
	L_5-L_{26}	374.86	83.54	0.59	1.54	-6.24	-4.24				
	L_{26}-L_6	-171.07	19.86	-4.66	2.45	-1.20	-0.84				
	L_6-L_{27}	-208.33	253.78	-6.06	3.55	0.46	-0.61				
	L_{27}-L_7	-84.78	1.02	0.41	3.42	0.37	-0.39				
	L_7-L_{28}	10.35	-213.29	-0.58	1.31	3.47	-7.62				
	L_{28}-L_8	84.56	-247.73	0.41	1.16	3.75	-7.67				
	L_8-L_{29}	-0.36	-194.33	-0.66	1.42	1.31	-7.54				
	L_{29}-L_9	-39.61	-183.71	-0.57	1.42	0.61	-7.47				
	L_9-L_{30}	-287.80	-299.08	-0.13	2.41	-5.41	-11.06				
	L_{30}-L_{10}	-163.71	-183.52	-0.85	3.23	-6.45	-12.56				
	L_{10}-L_{31}	-467.54	-273.29	3.53	5.06	-16.72	-22.97				
	L_{31}-L_{11}	-310.55	-45.89	4.14	7.65	-22.09	-8.29				
	L_{11}-L_{32}	-469.28	-20.70	4.13	7.65	-21.98	-4.19				
	L_{32}-L_{12}	-209.39	-318.68	0.69	0.65	-7.38	-7.10				
	L_{12}-L_{33}	374.86	83.54	0.59	1.54	-6.24	-4.24				
	L_{33}-L_{13}	-171.07	19.86	-4.66	2.45	-1.20	-0.84				
	L_{13}-L_{34}	-208.33	253.78	-6.06	3.55	0.46	-0.61				
	L_{34}-L_{14}	-84.78	1.02	0.41	3.42	0.37	-0.39				
	L_{14}-L_{35}	10.35	-213.29	-0.58	1.31	3.47	-7.62				
	L_{35}-L_{15}	84.56	-247.73	0.41	1.16	3.75	-7.67				
	L_{15}-L_{36}	-0.36	-194.33	-0.66	1.42	1.31	-7.54				
	L_{36}-L_{16}	-39.61	-183.71	-0.57	1.42	0.61	-7.47				
	L_{16}-L_{37}	-287.80	-299.08	-0.13	2.41	-5.41	-11.06				
	L_{37}-L_{17}	-163.71	-183.52	-0.85	3.23	-6.45	-12.56				
	L_{17}-L_{38}	-467.54	-273.29	3.53	5.06	-16.72	-22.97				
	L_{38}-L_{18}	-310.55	-45.89	4.14	7.65	-22.09	-8.29				
	L_{18}-L_{39}	-469.28	-20.70	4.13	7.65	-21.98	-4.19				
	L_{39}-L_{19}	-209.39	-318.68	0.69	0.65	-7.38	-7.10				
	L_{19}-L_{40}	374.86	83.54	0.59	1.54	-6.24	-4.24				
	L_{40}-L_{20}	-171.07	19.86	-4.66	2.45	-1.20	-0.84				
	L_{20}-L_{41}	-208.33	253.78	-6.06	3.55	0.46	-0.61				
	L_{41}-L_0	-84.78	1.02	0.41	3.42	0.37	-0.39				
Structure 2	L_{21}-L_{22}	41.53	-186.96	3.37	6.65	-4.60	-23.86				
	L_{22}-L_{23}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{23}-L_{24}	-108.55	-10.73	3.75	4.74	-5.13	-6.06				
	L_{24}-L_{25}	-26.46	53.93	4.82	3.92	-7.13	-4.60				
	L_{25}-L_{26}	-65.47	170.47	3.52	3.99	-2.92	-1.69				
	L_{26}-L_{27}	-30.98	151.24	-7.31	8.14	0.00	0.00				
	L_{27}-L_{28}	-49.68	213.12	-7.31	8.14	0.00	0.00				
	L_{28}-L_{29}	-19.38	-193.41	-1.76	2.37	-1.50	-7.97				
	L_{29}-L_{30}	-29.13	-27.18	2.53	2.78	-1.98	-6.66				
	L_{30}-L_{31}	140.88	-268.17	0.00	0.00	38.12	-13.28				
	L_{31}-L_{32}	-140.43	-76.07	-1.53	4.14	2.26	-4.20				
	L_{32}-L_{33}	-27.79	-114.86	-1.25	3.11	1.97	-3.31				
	L_{33}-L_{34}	-147.94	-145.21	2.81	5.29	3.17	-8.25				
	L_{34}-L_{35}	-140.43	-76.07	-1.53	4.14	2.26	-4.20				
	L_{35}-L_{36}	-27.79	-114.86	-1.25	3.11	1.97	-3.31				
	L_{36}-L_{37}	-147.94	-145.21	2.81	5.29	3.17	-8.25				
	L_{37}-L_{38}	-140.43	-76.07	-1.53	4.14	2.26	-4.20				
	L_{38}-L_{39}	-27.79	-114.86	-1.25	3.11	1.97	-3.31				
	L_{39}-L_{40}	-147.94	-145.21	2.81	5.29	3.17	-8.25				
	L_{40}-L_{41}	-140.43	-76.07	-1.53	4.14	2.26	-4.20				
	L_{41}-L_{21}	-27.79	-114.86	-1.25	3.11	1.97	-3.31				
Structure 3	L_{21}-L_{42}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{42}-L_{43}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{43}-L_{44}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{44}-L_{45}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{45}-L_{46}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{46}-L_{47}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{47}-L_{48}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{48}-L_{49}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{49}-L_{50}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{50}-L_{51}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{51}-L_{52}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{52}-L_{53}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{53}-L_{54}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{54}-L_{55}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{55}-L_{56}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{56}-L_{57}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{57}-L_{58}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{58}-L_{59}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{59}-L_{60}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{60}-L_{61}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{61}-L_{62}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{62}-L_{63}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{63}-L_{64}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{64}-L_{65}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{65}-L_{66}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{66}-L_{67}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{67}-L_{68}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{68}-L_{69}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{69}-L_{70}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{70}-L_{71}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{71}-L_{72}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{72}-L_{73}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{73}-L_{74}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{74}-L_{75}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{75}-L_{76}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{76}-L_{77}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{77}-L_{78}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{78}-L_{79}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{79}-L_{80}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{80}-L_{81}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{81}-L_{82}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{82}-L_{83}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{83}-L_{84}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{84}-L_{85}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{85}-L_{86}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{86}-L_{87}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{87}-L_{88}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{88}-L_{89}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{89}-L_{90}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{90}-L_{91}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{91}-L_{92}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{92}-L_{93}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{93}-L_{94}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{94}-L_{95}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{95}-L_{96}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{96}-L_{97}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{97}-L_{98}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{98}-L_{99}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{99}-L_{100}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{100}-L_{101}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{101}-L_{102}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{102}-L_{103}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{103}-L_{104}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{104}-L_{105}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{105}-L_{106}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{106}-L_{107}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{107}-L_{108}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{108}-L_{109}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{109}-L_{110}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{110}-L_{111}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{111}-L_{112}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{112}-L_{113}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{113}-L_{114}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{114}-L_{115}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{115}-L_{116}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{116}-L_{117}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{117}-L_{118}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{118}-L_{119}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{119}-L_{120}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{120}-L_{121}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{121}-L_{122}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{122}-L_{123}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{123}-L_{124}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{124}-L_{125}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{125}-L_{126}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{126}-L_{127}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{127}-L_{128}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{128}-L_{129}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{129}-L_{130}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{130}-L_{131}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{131}-L_{132}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{132}-L_{133}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{133}-L_{134}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{134}-L_{135}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{135}-L_{136}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{136}-L_{137}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{137}-L_{138}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{138}-L_{139}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{139}-L_{140}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{140}-L_{141}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{141}-L_{142}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{142}-L_{143}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{143}-L_{144}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{144}-L_{145}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{145}-L_{146}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{146}-L_{147}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{147}-L_{148}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{148}-L_{149}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{149}-L_{150}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{150}-L_{151}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{151}-L_{152}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{152}-L_{153}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{153}-L_{154}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{154}-L_{155}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{155}-L_{156}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{156}-L_{157}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{157}-L_{158}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{158}-L_{159}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{159}-L_{160}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{160}-L_{161}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{161}-L_{162}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{162}-L_{163}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{163}-L_{164}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{164}-L_{165}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{165}-L_{166}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{166}-L_{167}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{167}-L_{168}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{168}-L_{169}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{169}-L_{170}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{170}-L_{171}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{171}-L_{172}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{172}-L_{173}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{173}-L_{174}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{174}-L_{175}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{175}-L_{176}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{176}-L_{177}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{177}-L_{178}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{178}-L_{179}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{179}-L_{180}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{180}-L_{181}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{181}-L_{182}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{182}-L_{183}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{183}-L_{184}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{184}-L_{185}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{185}-L_{186}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{186}-L_{187}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{187}-L_{188}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{188}-L_{189}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{189}-L_{190}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{190}-L_{191}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{191}-L_{192}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{192}-L_{193}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{193}-L_{194}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{194}-L_{195}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{195}-L_{196}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{196}-L_{197}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{197}-L_{198}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{198}-L_{199}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{199}-L_{200}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{200}-L_{201}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{201}-L_{202}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{202}-L_{203}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{203}-L_{204}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{204}-L_{205}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{205}-L_{206}	-19.37	-233.39	3.33	6.65	-4.60	-23.86				
	L_{206}-L_{207}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{207}-L_{208}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{208}-L_{209}	-227.31	-59.39	-8.84	3.03	1.28	-1.02				
	L_{209}-L_{210}	-304.19	-21.34	-5.57	0.48	-6.18	-1.53				
	L_{210}-L_{211}	-370.36	-165.17	4.04	0.96	-17.20	-10.23				
	L_{211}-L_{212}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{212}-L_{213}	-182.53	-415.63	3.67	3.43	-20.93	-18.43				
	L_{213}-L_{214}	-370.36	-165.17	4.04	0.96	-17.20

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spreadsheet
Condition: **HS20 Lane**
Location: **Ao Bolt**

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
Gusset Plate Capacities for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Min) End (k-ft)	Lane Reduction & Impact Live Load Max Start (k-ft)	Lane Reduction & Impact Live Load Max End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	U_0~L_1	-66.29	86.22	2.76	3.31	0.78	-1.02	-29.75	35.76	8.43	11.02
	U_1~L_1	-14.44	23.27	-2.49	2.64	0.98	-0.99	-26.86	28.46	10.58	-10.70
	U_1~L_2	0.00	-5.55	3.10	2.66	1.18	-1.34	-22.05	27.63	12.71	-14.44
	U_2~L_2	36.84	-39.22	-1.77	2.00	1.03	-1.26	-19.08	21.57	11.08	-13.64
	U_2~L_3	49.77	-49.19	0.00	1.61	0.98	-1.04	0.00	0.00	15.58	-19.89
	U_3~L_3	57.71	-69.80	0.04	0.61	3.58	-3.79	0.46	0.15	38.66	-40.94
	U_3~L_4	63.32	-67.29	0.07	0.70	3.10	-3.72	-8.78	2.38	34.54	-40.12
	U_4~L_4	106.28	-118.16	0.15	0.11	4.70	-5.01	-1.58	1.22	50.76	-54.08
	U_4~L_5	-10.96	6.72	-3.76	4.49	4.87	-5.89	-40.64	48.54	52.57	-53.58
	U_5~L_5	-144.91	167.70	-4.54	5.17	0.27	-0.23	-294.57	338.96	-152.08	212.65
	U_5~L_6	-102.02	95.66	-3.30	3.64	0.28	-0.33	-35.62	39.26	9.91	-3.53
	U_6~L_6	-111.13	106.65	-4.33	5.10	0.02	-0.15	-64.72	57.91	4.29	-1.37
	U_6~L_7	-96.42	93.90	3.60	3.76	-0.02	-0.02	-38.87	40.65	-0.18	-0.24
	U_7~L_7	-60.91	75.94	-3.72	3.91	0.00	0.00	-40.18	42.27	0.00	0.00
	U_7~L_8	-53.33	59.63	-3.72	3.91	0.00	0.00	-21.00	21.62	-62.24	-44.51
	U_8~L_8	8.32	-15.87	-0.74	0.81	2.57	-2.68	-7.96	8.69	27.70	-28.98
	U_8~L_9	47.73	-50.39	-0.73	0.72	2.80	-3.04	-7.97	7.81	30.88	-32.61
	U_9~L_9	61.55	-72.81	-0.55	0.56	3.27	-3.42	-5.95	6.02	35.27	-36.94
	U_9~L_{10}	133.11	-138.25	-0.76	0.77	3.24	-3.46	-15.16	15.11	67.71	-70.63
	U_{10}~L_{10}	157.87	-153.86	-0.78	0.70	6.51	-6.20	-8.41	7.54	70.32	-66.91
	U_{10}~L_{11}	-131.38	-213.66	-0.34	0.57	2.52	-5.23	-3.63	6.10	31.04	-56.47
	U_{11}~L_{11}	-143.17	191.00	-0.16	0.16	1.16	-11.62	-0.06	0.00	0.00	0.00
	U_{11}~L_{12}	-122.87	130.77	-4.75	5.08	0.98	-1.02	-51.31	54.83	10.62	-10.99
	U_{12}~L_{12}	-117.87	124.76	-5.19	5.31	1.22	-1.27	-56.07	58.34	13.14	-13.12
	U_{12}~L_{13}	-62.46	-69.03	-2.79	2.98	0.78	-0.80	-30.16	32.15	8.40	-8.63
	U_{13}~L_{13}	-37.86	-43.29	-2.67	2.87	0.78	-0.78	-30.68	32.68	10.78	-10.47
	U_{13}~L_{14}	-9.11	15.69	-2.43	2.72	1.17	-1.22	-26.24	29.41	12.58	-13.12
	U_{14}~L_{14}	14.84	-14.93	-2.03	2.11	0.97	-1.10	21.91	22.82	10.52	-11.66
	U_{14}~L_{15}	39.69	-45.43	0.00	0.00	1.30	-1.52	0.00	0.00	11.30	-13.19
	U_{15}~L_{15}	88.81	-97.92	0.00	0.00	4.09	-4.09	0.00	0.00	43.18	-44.19
	U_{15}~L_{16}	133.08	-133.02	0.00	0.00	5.57	-5.57	0.00	0.00	57.22	-62.94
	U_{16}~L_{16}	140.09	-147.00	0.01	0.12	5.60	-6.09	0.06	1.34	60.49	-64.80
	U_{16}~L_{17}	148.96	-153.44	-0.16	0.30	6.15	-6.70	-1.12	3.19	60.70	-63.60
	U_{17}~L_{17}	147.37	-139.56	-0.75	0.57	4.59	-5.03	-4.45	4.82	59.91	-63.02
	U_{17}~L_{18}	185.41	-182.32	-0.60	0.43	7.03	-6.97	-6.46	4.62	75.91	-75.31
	U_{18}~L_{18}	72.60	-73.13	-0.57	0.31	3.07	-3.42	-57.34	54.89	16.30	-16.23
	U_{18}~L_{19}	-128.28	129.98	-6.41	6.32	1.16	-1.02	-69.22	68.21	12.50	-11.03
	U_{19}~L_{19}	-125.94	122.64	-6.71	6.56	1.16	-1.02	-69.22	68.21	12.50	-11.03
	U_{19}~L_{20}	-125.94	122.64	-7.56	7.45	0.92	-1.03	-81.67	80.43	9.88	-11.03
	U_{20}~L_{20}	-109.69	106.91	-6.97	6.55	0.60	-0.52	-64.32	70.76	7.03	-6.89
	U_{20}~L_{21}	-88.63	86.39	-6.39	6.00	0.60	-0.52	-64.32	70.76	7.03	-6.89
	U_{21}~L_{21}	-43.25	43.74	-2.80	3.00	0.25	-0.30	-30.24	32.38	2.67	-3.25
	U_{21}~L_{22}	-29.76	24.19	-3.12	3.12	0.25	-0.30	-30.24	32.38	2.67	-3.25
	U_{22}~L_{22}	-4.28	1.60	-0.69	0.81	0.54	-0.61	-7.43	8.72	5.81	-6.53
	U_{22}~L_{23}	38.81	-38.63	-0.30	0.37	0.30	-0.21	34.56	36.25	2.51	-2.51
	U_{23}~L_{23}	46.57	-51.18	-0.37	0.39	2.85	-3.08	-3.97	4.23	30.81	-33.25
	U_{23}~L_{24}	62.68	-61.36	-0.54	0.59	4.33	-4.30	-5.81	6.36	45.74	-46.39
	U_{24}~L_{24}	73.53	-73.53	-0.63	0.68	5.13	-5.13	-6.84	7.48	54.01	-54.78
	U_{24}~L_{25}	106.60	-105.79	-1.13	1.16	8.32	-8.41	-12.20	12.53	89.87	-90.78
	U_{25}~L_{25}	113.74	-113.74	-1.21	1.24	8.96	-9.05	-13.04	13.40	96.78	-97.76
	U_{25}~L_{26}	114.56	-114.55	-0.74	0.57	7.63	-7.65	-7.94	6.19	84.53	-82.62
	U_{26}~L_{26}	113.74	-113.74	-0.83	0.66	8.96	-9.05	-13.04	13.40	96.78	-97.76
	U_{26}~L_{27}	-121.12	118.67	4.18	6.16	0.88	-0.84	-66.72	66.50	9.55	-9.08
	U_{27}~L_{27}	-92.37	86.40	-5.19	4.64	0.69	-0.99	-56.03	50.56	7.43	-10.65
	U_{27}~L_{28}	-73.53	73.53	-5.63	5.06	0.77	-1.10	-61.34	55.14	8.29	-11.77
	U_{28}~L_{28}	-96.77	103.11	-4.77	5.12	0.01	-0.29	-51.47	55.29	0.14	-3.13
	U_{28}~L_{29}	-81.56	77.54	-5.10	5.57	0.01	-0.37	-45.85	47.61	0.00	-0.37
	U_{29}~L_{29}	-43.45	70.69	-4.29	4.39	0.00	0.00	-45.85	47.61	0.00	0.00
	U_{29}~L_{30}	-32.66	38.67	-1.22	1.44	0.00	0.00	-13.20	15.57	0.00	0.00
	U_{30}~L_{30}	-16.16	17.79	-1.65	1.77	0.00	0.00	-13.20	15.57	0.00	0.00
	U_{30}~L_{31}	4.46	-6.40	-1.25	1.30	2.18	-2.48	-13.31	14.00	23.53	-26.81
	U_{31}~L_{31}	22.58	-22.58	-1.13	1.17	1.96	-2.23	-12.23	12.74	21.62	-24.36
	U_{31}~L_{32}	47.22	-50.55	-0.95	0.96	3.40	-3.59	-10.26	10.36	36.76	-38.77
	U_{32}~L_{32}	92.05	-98.07	-1.73	1.77	6.34	-6.68	-16.33	16.89	67.89	-71.60
	U_{32}~L_{33}	104.86	-112.00	-1.36	1.28	7.10	-6.91	-14.66	13.79	76.64	-74.57
	U_{33}~L_{33}	108.12	-132.79	-0.68	1.11	3.05	-6.57	-7.35	12.03	32.98	-65.56
	U_{33}~L_{34}	124.18	-163.05	-0.32	0.56	1.43	-5.07	-4.26	7.37	19.26	-39.39
	U_{34}~L_{34}	-109.22	116.95	-4.19	4.39	0.52	-0.49	-45.25	47.36	5.64	-5.31
	U_{34}~L_{35}	-88.65	88.79	-4.26	4.39	0.52	-0.49	-46.64	47.36	5.64	-5.31
	U_{35}~L_{35}	-48.65	58.79	-2.56	2.73	0.43	-0.44	-27.65	29.45	4.68	-4.73
	U_{35}~L_{36}	-33.15	42.89	-2.67	2.87	0.43	-0.44	-27.65	29.45	4.68	-4.73
	U_{36}~L_{36}	-5.41	11.55	-2.52	3.08	0.66	-0.73	-37.03	33.23	7.07	-7.83
	U_{36}~L_{37}	27.86	-30.67	0.00	0.04	0.86	-0.90	0.00	0.00	0.00	0.00
	U_{37}~L_{37}	56.06	-58.36	0.00	0.04	1.16	-1.22	0.00	0.00	0.00	0.00
	U_{38}~L_{38}	85.73	-83.03	0.00	0.00	3.79	-4.04	0.00	0.00	40.90	-43.61
	U_{38}~L_{39}	90.07	-90.07	0.00	0.00	3.79	-4.04	0.00	0.00	40.90	-43.61
	U_{39}~L_{39}	95.00	-97.81	0.16	0.28	4.11	-4.66	1.71	2.98	44.43	-50.28
	U_{39}~L_{40}	99.11	-131.50	0.03	0.04	5.08	-6.04	0.29	0.46	54.81	-65.24
	U_{40}~L_{40}	95.00	-87.91	0.16	0.28	4.11	-4.66	1.71	2.98	44.43	-50.28
	U_{40}~L_{41}	135.46	-154.19	-0.19	0.17	5.53	-6.30	-2.00	1.79	59.77	-68.03
	U_{41}~L_{41}	52.77	-74.32	-3.54	4.45	4.56	-5.92	-42.00	48.09	49.25	-63.91
	U_{41}~L_{42}	-62.87	69.54	-3.90	4.16	0.21	-0.18	-38.87	40.65	-0.18	-0.24
	U_{42}~L_{42}	-41.65	35.38	-2.61	2.98	0.12	-0.32	-28.17	32.23	1.27	-3.40
	U_{43}~L_{43}	-36.85	40.05	-3.44	3.87	-0.07	-0.04	-37.17	38.50	0.73	-0.46
	U_{44}~L_{44}	-39.84	39.91	-1.83	2.02	0.00	0.00	-20.89	21.79	0.00	0.00
	U_{45}~L_{45}	-38.87	40.30	-1.18	1.40	1.37	-1.49	-12.75	13.07	14.84	-16.05
	U_{46}~L_{46}	-13.42	14.14	-1.40	1.59	2.11	-2.68	-15.15	17.15	22.77	-28.89
	U_{47}~L_{47}	5.87	-8.62	-1.47	1.31	3.93	-3.58	-15.87	14.16	42.45	-38.62
	U_{48}~L_{48}	20.19	-40.81	-0.35	1.92	0.93	-3.12	-3.81	11.06	10.07	-33.64

Location	Member	Max. Neg. Mom. Start (k-ft)	Max. Neg. Mom. End (k-ft)	S_{bb} (in^3)	S_b (in^3)	S_{tb} (in^3)	Z_z (in^3)	I_z (in^4)	Shape Factor f	M_p (k-in)	Formula f_b Term = F_y*S_bb	M_y (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor $C_{b(UU)}$	Equivalent Mom. Factor $C_{b(SS)}$
Structure 1	U_0~L_1	-137.64	189.56	54.90	88.22	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_1~L_1	-76.97	91.91	4.16	7.07	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_1~L_2	-60.73	53.08	35.89	38.55	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_2~L_2	6.54	71.90	-75.34	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.904
	U_2~L_3	64.71	63.55	-101.05	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.999
	U_3~L_3	76.02	90.41	158.79	179.44	19.4	19.37	19.31	29.87	3	907.0	1.54	986	1.5	958.8
	U_3~L_4	-87.14	42.95	162.58	174.41	23.8	20.80	20.67	34.66	3	1078.0	1.67	1144	1.5	1029.6
	U_4~L_4	-248.15	-270.77	18.5	18.45	18.36	30.78	7	1020.9	1.67	1016	1.5	913.3	-0.916	0.23
	U_4~L_5	-102.30	113.89	99.67	-129.03	107.1	107.13	107.11	162.71	26	2056.9	1.52	5369	1.5	5302.3
	U_5~L_5	-294.57	338.96	-152.08	212.65	33.1	33.05	32.91	54.51	14	1408.8	1.65	1799	1.5	1636.0
	U_5~L_6	-209.79	209.42	-130.65	116.71	35.5	35.52	35.44	58.46	14	1309.7	1.65	1929	1.5	1758.2
	U_6~L_6	-245.67	222.89	-140.00	220.67	42.74	42.74	42.74	65.30	16	1389.6	1.53	2155	1.5	2115.6
	U_6~L_7	-209.56	210.15	-128.74	121.56	21.1	21.09	21.09	36.48	10	1137.6	1.68	1170	1.5	1044.0
	U_7~L_7	-166.23	190.31	-75.18	98.72	17.2	17.24	17.24	26.54	2	824.7	1.54	876	1.5	853.4
	U_7~L_8	-71.00	62.24	-44.51	51.80	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_8~L_8	-44.44	1.80	70.83	-83.42	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_8~L_9	-7.97	7.81	30.88	-32.61	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_9~L_9	-5.95	6.02	35.27	-36.94	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_9~L_{10}	-15.16	15.11	67.71	-70.63	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{10}~L_{10}	-8.41	7.54	70.32	-66.91	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{10}~L_{11}	-3.63	6.10	31.04	-56.47	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{11}~L_{11}	-0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{11}~L_{12}	-51.31	54.83	10.62	-10.99	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{12}~L_{12}	-56.07	58.34	13.14	-13.12	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{12}~L_{13}	-30.16	32.15	8.40	-8.63	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{13}~L_{13}	-30.68	32.68	10.78	-10.47	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{13}~L_{14}	-26.24	29.41	12.58	-13.12	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{14}~L_{14}	21.91	22.82	10.52	-11.66	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{14}~L_{15}	0.00	0.00	11.30	-13.19	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{15}~L_{15}	0.00	0.00	43.18	-44.19	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{15}~L_{16}	0.00	0.00	57.22	-62.94	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{16}~L_{16}	0.06	1.34	60.49	-64.80	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{16}~L_{17}	-1.12	3.19	60.70	-63.60	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{17}~L_{17}	-4.45	4.82	59.91	-63.02	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{17}~L_{18}	-6.46	4.62	75.91	-75.31	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{18}~L_{18}	-57.34	54.89	16.30	-16.23	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{18}~L_{19}	-69.22	68.21	12.50	-11.03	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{19}~L_{19}	-69.22	68.21	12.50	-11.03	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{19}~L_{20}	-81.67	80.43	9.88	-11.03	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{20}~L_{20}	-64.32	70.76	7.03	-6.89	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{20}~L_{21}	-64.32	70.76	7.03	-6.89	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{21}~L_{21}	-30.24	32.38	2.67	-3.25	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{21}~L_{22}	-30.24	32.38	2.67	-3.25	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{22}~L_{22}	-7.43	8.72	5.81	-6.53	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{22}~L_{23}	34.56	36.25	2.51	-2.51	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{23}~L_{23}	-3.97	4.23	30.81	-33.25	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{23}~L_{24}	-5.81	6.36	45.74	-46.39	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{24}~L_{24}	-6.84	7.48	54.01	-54.78	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{24}~L_{25}	-12.20	12.53	89.87	-90.78	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{25}~L_{25}	-13.04	13.40	96.78	-97.76	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{25}~L_{26}	-7.94	6.19	84.53	-82.62	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{26}~L_{26}	-13.04	13.40	96.78	-97.76	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{27}~L_{27}	-66.72	66.50	9.55	-9.08	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{27}~L_{28}	-56.03	50.56	7.43	-10.65	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{28}~L_{28}	-61.34	55.14	8.29	-11.77	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{28}~L_{29}	-51.47	55.29	0.14	-3.13	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{29}~L_{29}	-45.85	47.61	0.00	-0.37	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{29}~L_{30}	-45.85	47.61	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{30}~L_{30}	-13.20	15.57	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{30}~L_{31}	-13.20	15.57	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{31}~L_{31}	-13.31	14.00	23.53	-26.81	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{31}~L_{32}	-12.23	12.74	21.62	-24.36	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{32}~L_{32}	-10.26	10.36	36.76	-38.77	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{32}~L_{33}	-16.33	16.89	67.89	-71.60	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{33}~L_{33}	-14.66	13.79	76.64	-74.57	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{33}~L_{34}	-7.35	12.03	32.98	-65.56	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{34}~L_{34}	-4.26	7.37	19.26	-39.39	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{34}~L_{35}	-45.25	47.36	5.64	-5.31	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{35}~L_{35}	-46.64	47.36	5.64	-5.31	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{35}~L_{36}	-27.65	29.45	4.68	-4.73	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{36}~L_{36}	-27.65	29.45	4.68	-4.73	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{36}~L_{37}	-37.03	33.23	7.07	-7.83	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{37}~L_{37}	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{38}~L_{38}	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{38}~L_{39}	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	1.54	0	1.5	763.3
	U_{39}~L_{39}	0.16	0.28	4.11	-4.66	1.71	2.98	44.43	-50.28	0.00	0.00	0.00	0.00	0	0.0
	U_{39}~L_{40}	-129.47	-169.94	247.69	-312.31	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6
	U_{40}~L_{40}	76.91	59.72	219.77	-256.23	36.5	35.52	35.44	58.46	14	1309.7	1.65	1929	1.5	1758.2
	U_{40}~L_{41}	-32.45	53.08	35.89	-38.55	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
	U_{41}~L_{41}	-143.17	191.00	-0.16	0.16	1.16	-11.

Moment (End) - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Max) End (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	U_0-L_1	-23.44	-7.53	-1.15	0.76	0.52	-0.25	-12.37	-8.19	-3.41	-2.68
	L_1-L_2	-3.41	-8.42	-0.96	0.22	0.40	-0.15	-10.51	-12.05	-2.35	-4.32
	L_2-L_3	-10.31	-12.05	-0.15	0.20	-0.20	-0.23	-27.09	-10.32	-6.76	-2.43
	L_3-L_4	-7.93	-13.37	0.46	0.12	-0.82	-0.97	4.92	1.25	-8.81	-10.47
	L_4-L_5	-14.61	-18.52	0.21	0.74	-1.10	-0.97	2.22	7.94	-15.92	-4.37
	L_5-L_6	-37.44	-76.90	-2.12	3.24	0.00	0.00	-22.90	-34.99	0.00	0.00
	L_6-L_7	-21.19	-37.44	-2.62	2.51	0.00	0.00	-39.28	-37.80	0.00	0.00
	L_7-L_8	-8.75	-101.99	-0.74	3.98	0.00	0.00	-8.00	-42.93	0.00	0.00
	L_8-L_9	-5.11	-118.70	0.46	3.63	0.37	-0.15	-4.12	-29.30	3.97	-1.57
	L_9-L_{10}	-17.69	-73.54	-2.26	2.26	0.34	-0.10	-24.35	-31.46	3.72	-1.11
	L_{10}-L_{11}	-43.88	-73.22	-1.55	2.42	0.00	0.00	-16.70	-28.15	0.00	0.00
	L_{11}-L_{12}	-73.22	-73.22	-2.28	2.28	0.00	0.00	-24.65	-25.12	0.00	0.00
	L_{12}-L_{13}	-65.20	-48.77	-2.26	2.10	0.00	0.00	-24.39	-22.70	0.00	0.00
	L_{13}-L_{14}	-24.90	8.63	-1.44	0.36	0.00	0.00	-15.58	3.92	0.00	0.00
	L_{14}-L_{15}	-6.81	-22.83	-0.68	0.86	0.00	0.00	-1.05	-9.63	0.00	0.00
	L_{15}-L_{16}	-25.30	9.99	-1.47	1.01	0.37	-0.33	-15.90	11.85	4.03	-3.52
	L_{16}-L_{17}	-37.01	-20.01	-2.04	1.46	0.34	-0.43	-22.60	13.78	3.69	-3.53
	L_{17}-L_{18}	-101.94	14.52	-3.64	3.15	0.50	-0.50	-29.29	34.01	5.43	-5.39
	L_{18}-L_{19}	-115.87	80.00	-4.18	4.23	0.46	-0.50	-45.13	74.56	-4.50	5.00
	L_{19}-L_{20}	-75.88	78.94	-1.40	2.46	0.10	-0.25	-15.10	26.58	1.12	-2.00
	L_{20}-L_{21}	-109.41	98.91	-4.00	3.73	0.67	-0.68	-43.22	40.25	7.18	-7.33
	L_{21}-L_{22}	-99.79	75.74	-3.75	3.47	0.71	-0.71	-40.12	34.76	8.75	-7.71
	L_{22}-L_{23}	-90.87	71.82	-3.83	3.06	0.93	-0.79	-41.33	33.02	10.04	-8.58
	L_{23}-L_{24}	-82.73	133.41	-2.25	3.66	0.10	-0.10	-24.13	61.75	1.05	-1.05
	L_{24}-L_{25}	-20.35	9.86	-1.76	1.28	0.63	-0.54	-18.96	-13.85	6.76	-6.80
	L_{25}-L_{26}	-13.39	1.28	-1.38	1.20	0.55	-0.55	-14.66	-7.51	7.41	-6.41
	L_{26}-L_{27}	6.85	-23.87	0.00	0.00	0.19	-0.67	0.00	0.00	2.05	-7.25
	L_{27}-L_{28}	-44.41	-35.31	-1.29	0.91	-0.48	0.15	-13.92	9.86	5.15	-1.66
	L_{28}-L_{29}	-96.57	69.69	-3.80	2.46	-0.28	0.28	-41.79	23.76	0.00	0.00
	L_{29}-L_{30}	-85.40	67.30	-3.98	2.19	0.00	0.00	-42.98	23.63	0.00	0.00
	L_{30}-L_{31}	-46.73	36.96	-4.38	3.07	0.00	0.00	-46.67	33.53	0.00	0.00
	L_{31}-L_{32}	-109.84	116.34	-4.20	4.38	0.00	0.00	-45.39	47.26	0.00	0.00
	L_{32}-L_{33}	-141.98	130.62	-5.79	5.00	0.99	-0.99	-62.05	54.01	10.75	-10.75
	L_{33}-L_{34}	-82.78	133.41	-2.25	3.66	0.10	-0.10	-24.13	61.75	1.05	-1.05
	L_{34}-L_{35}	-11.96	79.20	-1.21	3.65	0.95	-0.82	-13.10	39.37	10.26	-8.85
	L_{35}-L_{36}	-77.27	73.64	-4.22	3.66	0.00	0.00	-46.98	44.60	0.00	0.00
	L_{36}-L_{37}	-66.19	89.97	-4.28	5.00	0.94	-0.72	-46.21	53.96	10.17	-7.78
	L_{37}-L_{38}	-66.19	89.97	-4.28	5.00	0.94	-0.72	-46.98	54.60	10.26	-7.83
	L_{38}-L_{39}	-56.07	72.69	-3.26	3.03	0.77	-0.26	-35.25	32.70	8.29	-2.80
	L_{39}-L_{40}	-37.84	37.59	-2.46	1.89	0.46	-0.12	-26.98	20.00	4.99	-1.34
	L_{40}-L_{41}	-29.01	23.08	-2.28	1.46	0.46	-0.12	-24.65	13.78	4.99	-1.34
	L_{41}-L_{42}	-10.03	3.77	-0.80	0.35	-0.21	-0.37	-8.64	3.74	-2.28	-4.01
	L_{42}-L_{43}	-8.78	2.44	-0.70	0.31	-0.18	-0.32	-7.56	3.24	-1.96	-3.45
	L_{43}-L_{44}	-19.43	19.57	-1.56	1.10	-0.62	-0.12	-16.84	11.85	-6.18	-1.24
	L_{44}-L_{45}	-46.53	58.29	-3.60	3.03	0.00	0.00	-27.78	31.18	0.00	0.00
	L_{45}-L_{46}	-46.53	58.29	-3.60	3.03	0.00	0.00	-38.85	32.72	0.00	0.00
	L_{46}-L_{47}	-54.32	68.37	-4.38	4.23	0.65	-0.17	-47.35	45.67	7.05	-1.81
	L_{47}-L_{48}	-69.49	72.12	-5.25	4.19	0.74	-0.65	-56.69	53.10	8.01	-7.11
	L_{48}-L_{49}	-56.69	53.10	-5.25	4.52	0.74	-0.65	-56.69	53.10	8.01	-7.11
	L_{49}-L_{50}	-39.78	70.53	-3.45	3.07	0.00	0.00	-20.47	36.29	0.00	0.00
	L_{50}-L_{51}	-35.84	53.55	-1.53	4.46	0.99	-0.78	-16.67	48.11	10.72	-8.37
	L_{51}-L_{52}	-28.18	42.23	-1.20	3.51	0.78	-0.61	-13.11	37.85	8.42	-6.58
	L_{52}-L_{53}	-76.64	55.13	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	L_{53}-L_{54}	-39.78	33.90	-1.36	1.36	0.00	0.00	-14.71	12.42	0.00	0.00
	L_{54}-L_{55}	6.26	-17.63	0.00	0.00	0.31	-0.75	0.00	0.00	3.38	-8.13
	L_{55}-L_{56}	-11.69	1.03	-0.98	0.42	0.67	-0.50	-11.69	4.48	7.18	-5.39
	L_{56}-L_{57}	-13.28	8.78	-1.24	0.75	0.79	-0.79	-13.28	8.78	8.51	-8.51
	L_{57}-L_{58}	-33.71	19.61	-2.45	1.82	0.69	-0.61	-26.43	19.67	7.45	-6.58
	L_{58}-L_{59}	-45.83	28.53	-3.23	2.57	0.00	0.00	-45.83	28.53	0.00	0.00
	L_{59}-L_{60}	-78.83	60.14	-4.98	3.97	0.93	-0.83	-53.83	42.83	10.01	-8.96
	L_{60}-L_{61}	-78.83	60.14	-4.98	3.97	0.93	-0.83	-53.83	42.83	10.01	-8.96
	L_{61}-L_{62}	-18.12	63.30	-4.06	3.17	0.27	-0.26	-43.88	34.24	2.95	-2.43
	L_{62}-L_{63}	-30.42	64.48	-2.95	2.43	0.33	-0.31	-31.90	26.22	3.57	-3.30
	L_{63}-L_{64}	-38.78	63.72	-3.61	2.96	0.33	-0.31	-35.16	26.73	3.57	-3.30
	L_{64}-L_{65}	-33.53	18.27	-1.85	1.38	0.31	-0.29	-19.99	14.88	3.39	-3.14
	L_{65}-L_{66}	-22.93	8.42	-1.29	0.91	0.31	-0.29	-16.11	7.40	3.28	-3.04
	L_{66}-L_{67}	-1.49	-18.99	0.00	0.00	-0.87	-0.48	0.00	0.00	-1.94	-34.69
	L_{67}-L_{68}	-8.78	2.44	-0.70	0.31	-0.18	-0.32	-7.56	3.24	-1.96	-3.45
	L_{68}-L_{69}	-53.89	37.99	-2.30	1.89	0.00	0.00	-24.81	20.39	0.00	0.00
	L_{69}-L_{70}	-61.82	22.38	-2.69	1.71	0.00	0.00	-29.02	18.49	0.00	0.00
	L_{70}-L_{71}	-52.79	52.24	-2.22	2.22	0.00	0.00	-29.02	18.49	0.00	0.00
	L_{71}-L_{72}	-72.27	65.81	-2.81	3.33	0.00	0.00	-30.38	35.96	0.00	0.00
	L_{72}-L_{73}	-53.89	37.99	-2.30	1.89	0.00	0.00	-24.81	20.39	0.00	0.00
	L_{73}-L_{74}	-5.27	6.61	-0.21	0.33	0.00	0.00	-2.76	3.46	0.00	0.00
	L_{74}-L_{75}	-3.55	3.55	-0.14	0.14	0.00	0.00	-1.48	1.48	0.00	0.00
	L_{75}-L_{76}	-38.99	50.41	-2.96	3.15	0.00	0.00	-31.94	34.05	0.00	0.00
	L_{76}-L_{77}	-7.78	19.68	-0.25	0.76	-1.48	-0.25	2.72	8.16	-15.96	-2.67
	L_{77}-L_{78}	-3.12	7.78	-0.10	0.30	-0.58	-0.10	1.07	3.12	-6.26	-1.07
	L_{78}-L_{79}	2.61	-8.77	0.00	0.00	-0.03	-3.12	0.00	0.00	-0.10	-12.49
	L_{79}-L_{80}	-3.12	-7.78	-0.10	0.30	-0.58	-0.10	1.07	3.12	-6.26	-1.07
	L_{80}-L_{81}	-5.74	-19.68	-0.58	0.31	-0.10	-0.74	-6.31	3.39	-1.99	-17.77

ZZ Axis Moments from STAAD

Location	Member	Max. Pos. Moment Start (k-ft)	Max. Pos. Moment End (k-ft)	Max. Neg. Moment Start (k-ft)	Max. Neg. Moment End (k-ft)	S_{top} (in^3)	S_{bot} (in^3)	Z_z (in^3)	I_z (in^4)	$I_{t/n}$ (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F_y/S_x	M_z (k-in)	Equivalent Mom. Factor a	$C_{b(+)}$	$C_{b(-)}$
Structure 1	U_0-L_1	-67.27	27.52	23.08	3.98	15.6	15.63	15.58	25.56	5	804.0	1.66	857	1.5	773.7	-0.481	0.41	0.41
	L_1-L_2	-24.16	5.36	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	0.218	0.65	0.69	0.69
	L_2-L_3	-27.09	-10.32	4.76	-17.59	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	0.219	0.65	0.69	0.69
	L_3-L_4	20.97	-14.67	-8.79	-40.06	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	0.219	0.65	0.69	0.69
	L_4-L_5	-14.18	-20.32	-13.81	-45.01	15.4	15.42	15.42	19.37	19.37	29.87	907.0	1.54	782	1.5	958.8	-0.273	0.44	0.49
	L_5-L_6	-68.28	115.79	-48.68	99.97	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5	1737.0	-0.559	0.38	0.38
	L_6-L_7	-39.28	37.80	-62.93	99.69	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5	1737.0	-0.128	0.55	0.55
	L_7-L_8	-8.00	42.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_8-L_9	-4.12	29.30	3.97	-1.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_9-L_{10}	-24.35	31.46	3.72	-1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{10}-L_{11}	-16.70	28.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{11}-L_{12}	-24.65	25.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{12}-L_{13}	-24.39	22.70	0.00	0.00	0.00	0.00	20.80	20.80	20.67	34.66	1076.0	1.67	1244	1.5	1322.1	-0.818	0.27	0.27
	L_{13}-L_{14}	-15.58	3.92	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.298	0.48	0.48
	L_{14}-L_{15}	-1.05	-9.63	0.00	0.00	0.00	0.00	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.542	0.38	0.38
	L_{15}-L_{16}	-15.90	11.85	4.03	-3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{16}-L_{17}	-22.60	13.78	3.69	-3.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{17}-L_{18}	-29.29	34.01	5.43	-5.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{18}-L_{19}	-45.13	74.56	-4.50	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{19}-L_{20}	-15.10	26.58	1.12	-2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{20}-L_{21}	-43.22	40.25	7.18	-7.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{21}-L_{22}	-40.12	34.76	8.75	-7.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{22}-L_{23}	-41.33	33.02	10.04	-8.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{23}-L_{24}	-24.13	61.75	1.05	-1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{24}-L_{25}	-18.96	-13.85	6.76	-6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{25}-L_{26}	-14.66	-7.51	7.41	-6.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{26}-L_{27}	0.00	0.00	2.05	-7.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{27}-L_{28}	-13.92	9.86	5.15	-1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{28}-L_{29}	-41.79	23.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{29}-L_{30}	-42.98	23.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{30}-L_{31}	-46.67	33.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{31}-L_{32}	-45.39	47.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{32}-L_{33}	-62.05	54.01	10.75	-10.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{33}-L_{34}	-24.13	61.75	1.05	-1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{34}-L_{35}	-13.10	39.37	10.26	-8.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{35}-L_{36}	-46.98	44.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{36}-L_{37}	-46.21	53.96	10.17	-7.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{37}-L_{38}	-46.98	54.60	10.26	-7.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{38}-L_{39}	-35.25	32.70	8.29	-2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{39}-L_{40}	-26.98	20.00	4.99	-1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{40}-L_{41}	-24.65	13.78	4.99	-1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{41}-L_{42}	-8.64	3.74	-2.28	-4.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{42}-L_{43}	-7.56	3.24	-1.96	-3.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{43}-L_{44}	-16.84	11.85	-6.18	-1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{44}-L_{45}	-27.78	31.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{45}-L_{46}	-38.85	32.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{46}-L_{47}	-47.35	45.67	7.05	-1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{47}-L_{48}	-56.69	53.10	8.01	-7.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{48}-L_{49}	-56.69	53.10	8.01	-7.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{49}-L_{50}	-20.47	36.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{50}-L_{51}	-16.67	48.11	10.72	-8.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{51}-L_{52}	-13.11	37.85	8.42	-6.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{52}-L_{53}	-41.00	27.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{53}-L_{54}	-14.71	12.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{54}-L_{55}	0.00	0.00	3.38	-8.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{55}-L_{56}	-11.69	4.48	7.18	-5.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{56}-L_{57}	-13.28	8.78	8.51	-8.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{57}-L_{58}	-26.43	19.67	7.45	-6.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{58}-L_{59}	-45.83	28.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{59}-L_{60}	-53.83	42.83	10.01	-8.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{60}-L_{61}	-53.83	42.83	10.01	-8.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{61}-L_{62}	-43.88	34.24	2.95	-2.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{62}-L_{63}	-31.90	26.22	3.57	-3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{63}-L_{64}	-35.16	26.73	3.57	-3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{64}-L_{65}	-19.99	14.88	3.39	-3.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{65}-L_{66}	-16.11	7.40	3.28	-3.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{66}-L_{67}	0.00	0.00	-1.94	-34.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{67}-L_{68}	-7.56	3.24	-1.96	-3.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{68}-L_{69}	-24.81	20.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{69}-L_{70}	-29.02	18.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{70}-

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
(c) Governing Section Based on Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Min) Start (k-ft)	Pedestrian Load (Min) End (k-ft)	Lane Reduction & Impact Live Load Max Start (k-ft)	Lane Reduction & Impact Live Load Max End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	U_0-U_1	-75.12	-0.70	-1.14	1.61	1.85	-5.69				
	U_1-U_2	-45.61	-20.16	0.29	2.79	-2.09	-8.40				
	U_2-U_3	-112.19	86.51	1.37	3.60	-3.01	-5.58				
	U_3-U_4	-15.68	66.14	2.31	3.37	-4.83	-1.58				
	L_0-L_1	-9.16	61.58	1.94	3.48	-10.93	-3.11				
	L_1-L_2	42.76	120.09	2.01	6.13	-4.82	-0.17				
	L_2-L_3	93.72	43.04	2.96	4.34	-6.47	-5.25				
	L_3-L_4	-47.40	525.96	-7.25	21.65	0.00	0.00				
	U_0-L_1	474.61	-124.27	4.14	1.01	10.86	-7.12				
	U_1-L_1	46.76	20.63	1.43	2.34	1.01	-4.37				
	U_1-L_2	64.51	-138.68	3.26	1.79	2.61	-7.25				
	U_2-L_2	27.83	-140.42	2.62	1.39	-1.33	-6.64				
	U_2-L_3	-106.18	-154.99	2.04	0.74	-0.54	-5.91				
	U_3-L_3	-137.97	-262.06	1.46	0.42	-0.69	-5.37				
	U_3-L_4	-245.66	-182.98	1.35	1.02	-26.24	-6.95				
	U_4-L_4	-123.52	-326.70	1.72	0.79	-4.92	-9.60				
	L_0-U_1	-269.82	-144.58	0.59	0.05	-14.64	-4.28				
	L_1-U_2	-134.10	-67.23	-0.86	1.75	0.60	-8.30				
	L_2-U_3	-170.35	-20.48	2.01	1.06	-3.88	-9.20				
	L_3-U_4	-186.12	24.46	-5.27	4.22	0.58	-9.96				
	U_1-U_2	0.00	0.00	-299.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_2-U_3	0.00	0.00	-88.00	-181.00	-0.28	0.00	0.00	0.00	0.00	0.00
	U_3-U_4	0.00	0.00	-52.00	-327.18	-1.28	0.00	0.00	0.00	0.00	0.00
	L_1-L_2	0.00	0.00	-325.33	1.48	13.35	29.92	-77.02	-111.76	0.00	0.00
	L_2-L_3	0.00	0.00	-299.21	3.98	19.99	44.06	-152.89	-165.89	0.00	0.00
	L_3-L_4	0.00	0.00	-396.09	-197.74	3.27	6.52	-113.67	-58.58	0.00	0.00
	L_0-U_1	-344.15	-179.39	5.02	4.37	-8.84	-27.28				
	L_1-U_2	-226.10	-291.71	3.60	4.95	-2.27	-27.71				
	L_2-U_3	-350.17	-90.75	-3.38	5.74	-6.73	-9.32				
	L_3-U_4	-370.24	-23.72	-4.82	6.07	-20.51	-28.50				
	U_1-L_1	-167.07	-39.82	5.51	5.42	-8.65	-2.03				
	U_1-L_2	-109.77	170.72	6.77	7.32	0.00	0.00				
	U_2-L_2	-42.71	-15.50	8.09	8.39	-46.85	0.00				
	U_2-L_3	-261.00	1265.93	-16.35	40.66	0.00	0.00				
	U_3-L_3	-1192.75	1.91	0.00	0.00	31.94	0.00				
	U_3-L_4	-25.30	71.62	1.69	4.86	-1.56	-8.44				
	L_0-U_1	-185.34	-21.63	2.63	2.12	-1.03	-6.14				
	L_1-U_2	-150.58	33.05	2.76	4.81	5.61	-12.91				
	L_2-U_3	-147.30	4.36	3.82	4.76	1.74	-8.22				
	L_3-U_4	-148.03	-23.77	4.87	4.76	-0.49	-7.48				
	U_1-L_1	-31.67	-34.01	3.66	4.08	-1.93	-8.31				
	U_1-L_2	-86.04	-77.79	4.95	5.01	0.00	0.00				
	U_2-L_2	-60.95	-86.97	3.59	3.90	-23.80	-7.59				
	U_2-L_3	-32.99	-28.66	4.02	4.10	-12.20	-3.62				
	U_3-L_3	-15.12	113.76	4.56	3.57	-4.23	-2.20				
	U_3-L_4	-2.69	209.81	-4.98	5.25	0.00	0.00				
	L_0-U_1	-122.28	-116.58	-9.79	42.17	0.00	0.00				
	L_1-U_2	-1153.78	-196.80	5.82	3.85	22.57	-12.50				
	L_2-U_3	-67.81	62.50	-7.88	7.39	0.00	0.00				
	L_3-U_4	178.87	-59.61	4.18	5.10	6.78	-13.61				
	U_1-L_1	-68.77	-178.57	5.94	4.88	-4.51	-14.92				
	U_1-L_2	-236.40	-133.06	4.52	3.97	-8.92	-27.47				
	U_2-L_2	-98.63	-313.14	4.78	4.50	-27.26	-9.46				
	U_2-L_3	-250.27	-386.72	3.52	3.96	-26.80	-7.65				
	U_3-L_3	-278.82	-117.63	-9.21	1.95	-8.40	-1.08				
	U_3-L_4	-292.26	-37.63	-7.10	2.61	-6.45	-1.21				
	L_0-U_1	-186.18	-74.10	-8.89	4.59	1.82	-1.17				
	L_1-U_2	-139.59	-187.78	-0.15	0.71	-0.58	-8.45				
	L_2-U_3	-147.42	-119.54	-0.61	0.20	-1.05	-7.89				
	L_3-U_4	-52.50	-128.95	-0.18	0.88	1.27	-7.54				
	U_1-L_1	-277.57	-111.60	0.10	1.79	-3.67	-6.69				
	U_1-L_2	-166.87	-243.33	1.20	1.62	-6.62	-25.58				
	U_2-L_2	-287.50	-127.74	1.44	-17.72	-5.32	-9.05				
	U_2-L_3	-141.30	-113.93	0.74	2.16	-5.22	-4.40				
	U_3-L_3	-136.41	-27.73	0.74	1.21	-4.47	-2.51				
	U_3-L_4	-141.54	56.98	-4.55	4.89	0.00	0.00				
	L_0-U_1	-136.80	470.88	-7.39	19.97	0.00	0.00				
	L_1-U_2	-497.19	-34.44	5.17	1.51	11.63	-7.08				
	L_2-U_3	-139.59	-187.78	-0.15	0.71	-0.58	-8.45				
	L_3-U_4	-52.50	-128.95	-0.18	0.88	1.27	-7.54				
	U_1-L_1	-277.57	-111.60	0.10	1.79	-3.67	-6.69				
	U_1-L_2	-166.87	-243.33	1.20	1.62	-6.62	-25.58				
	U_2-L_2	-287.50	-127.74	1.44	-17.72	-5.32	-9.05				
	U_2-L_3	-141.30	-113.93	0.74	2.16	-5.22	-4.40				
	U_3-L_3	-136.41	-27.73	0.74	1.21	-4.47	-2.51				
	U_3-L_4	-141.54	56.98	-4.55	4.89	0.00	0.00				
	L_0-U_1	-136.80	470.88	-7.39	19.97	0.00	0.00				
	L_1-U_2	-497.19	-34.44	5.17	1.51	11.63	-7.08				
	L_2-U_3	-113.01	44.44	3.60	2.67	2.03	-5.08				
	L_3-U_4	-99.30	15.07	3.55	2.26	-3.07	-15.00				
	U_1-L_1	-86.04	-19.79	3.53	2.02	-8.49	-4.81				
	U_1-L_2	-80.24	-119.59	3.59	0.74	-4.85	-7.13				
	U_2-L_2	-24.67	-27.08	1.37	0.42	-12.12	-2.40				
	U_2-L_3	-29.36	-160.66	-4.53	3.39	1.88	-2.47				

Location	Member	Lane Reduction & Impact Live Load Max Start (k-ft)	Lane Reduction & Impact Live Load Max End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	U_0-U_1				
	U_1-U_2				
	U_2-U_3				
	U_3-U_4				
	L_0-L_1				
	L_1-L_2				
	L_2-L_3				
	L_3-L_4				
	U_0-L_1				
	U_1-L_1				
	U_1-L_2				
	U_2-L_2				
	U_2-L_3				
	U_3-L_3				
	U_3-L_4				
	L_0-U_1				
	L_1-U_2				
	L_2-U_3				
	L_3-U_4				
	U_1-U_2	0.00	0.00	0.00	0.00
	U_2-U_3	0.00	0.00	0.00	0.00
	U_3-U_4	0.00	0.00	0.00	0.00
	L_1-L_2	0.00	0.00	0.00	0.00
	L_2-L_3	0.00	0.00	0.00	0.00
	L_3-L_4	0.00	0.00	0.00	0.00
	L_0-U_1				
	L_1-U_2				
	L_2-U_3				
	L_3-U_4				
	U_1-L_1				
	U_1-L_2				
	U_2-L_2				
	U_2-L_3				
	U_3-L_3				
	U_3-L_4			

Moment (End) - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: **HS20 Lane**
Condition: **As-Built**

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
(c) Guidelines for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	L_0-L_1	-15.54	-73.33	0.00	0.58	2.73	-3.45
	L_1-L_2	39.76	-67.96	-0.17	2.23	-0.99	-6.31
	L_2-L_3	79.39	-42.20	-1.36	2.40	-3.17	-5.52
	L_3-L_4	-11.34	11.55	1.25	3.99	-3.77	+2.17
	L_4-L_5	-49.11	208.03	-10.39	6.10	-43.11	5.30
	L_5-L_6	-0.48	181.07	-1.13	7.33	-4.51	-0.61
	L_6-L_7	41.44	78.72	-6.07	2.24	2.19	-2.14
	L_7-L_8	-25.11	448.74	-1.35	19.35	0.00	0.00
	L_8-L_9	425.89	-36.02	4.52	0.61	9.89	-1.47
	L_9-L_{10}	150.02	-126.53	-0.73	2.50	-2.79	-4.32
	L_{10}-L_{11}	120.44	-115.99	3.19	1.49	0.98	-4.52
	L_{11}-L_{12}	109.58	-108.12	2.27	1.17	0.89	-4.04
	L_{12}-L_{13}	-45.24	-121.26	1.97	0.84	-2.78	-3.63
	L_{13}-L_{14}	96.32	-264.98	1.60	1.07	1.54	-17.48
	L_{14}-L_{15}	352.24	-64.89	1.34	0.61	7.97	-1.49
	L_{15}-L_{16}	-191.89	-319.35	0.71	0.26	-7.75	-8.23
	L_{16}-L_{17}	339.58	64.88	0.95	1.16	6.48	-3.61
	L_{17}-L_{18}	-154.50	-31.26	-4.45	1.63	6.27	-0.24
	L_{18}-L_{19}	-215.80	145.76	-2.44	0.44	-2.17	-3.45
	L_{19}-L_{20}	-136.32	49.67	-0.86	3.64	0.34	-0.19
	L_0-L_5	-2.68	-185.02	-0.76	1.58	3.45	-8.29
	L_5-L_{10}	313.76	243.23	1.57	0.46	12.75	-8.13
	L_{10}-L_{15}	-4.23	-180.72	-0.24	1.66	-0.79	-7.55
	L_{15}-L_{20}	313.76	243.23	1.57	0.46	12.75	-8.13
	L_0-L_4	-252.85	-295.03	1.50	2.75	-8.73	-11.10
	L_4-L_8	1.41	1.41	0.00	0.00	0.00	0.00
	L_8-L_{12}	-475.08	-292.18	4.28	4.38	-10.79	-19.12
	L_{12}-L_{16}	-280.47	-64.51	3.56	6.30	-17.36	-5.98
	L_{16}-L_{20}	-292.36	219.74	4.44	4.89	-17.36	-5.98
	L_1-L_5	-225.83	141.30	2.52	6.40	-11.84	-0.20
	L_5-L_9	201.52	229.14	4.99	0.00	0.48	0.61
	L_9-L_{13}	-160.03	387.16	-8.33	13.68	0.00	0.00
	L_{13}-L_{17}	-202.71	204.45	-2.82	2.30	-4.02	-11.48
	L_{17}-L_{20}	-374.76	1103.14	-14.38	2.97	-2.79	-4.33
	L_1-L_4	1072.48	412.35	0.00	0.00	37.18	-14.92
	L_4-L_7	339.46	-81.91	-4.36	0.00	-23.77	49.38
	L_7-L_{11}	475.57	-49.03	4.70	2.79	4.71	-5.49
	L_{11}-L_{15}	1.41	1.41	0.00	0.00	0.00	0.00
	L_{15}-L_{18}	226.51	-41.81	4.76	3.31	1.64	-6.15
	L_{18}-L_{20}	214.45	-56.43	2.58	4.63	-1.01	-7.68
	L_0-L_3	1.41	1.41	0.00	0.00	0.00	0.00
	L_3-L_6	49.27	202.49	3.06	5.00	-4.18	-21.90
	L_6-L_{10}	197.10	24.93	4.39	3.00	-4.18	-21.90
	L_{10}-L_{14}	-111.92	0.86	3.43	4.41	-9.68	-5.88
	L_{14}-L_{17}	379.76	1103.14	14.38	2.97	2.79	4.33
	L_{17}-L_{20}	-60.79	179.81	3.18	4.49	0.00	0.00
	L_0-L_1	-81.80	265.56	-8.20	6.99	0.00	0.00
	L_1-L_2	319.46	-81.91	-4.36	0.00	-23.77	49.38
	L_2-L_3	-99.81	-279.28	-0.35	1.92	-1.92	-11.22
	L_3-L_4	371.96	1004.43	-1.63	1.24	-61.25	38.69
	L_4-L_5	1026.29	362.30	0.00	0.00	38.21	-15.04
	L_5-L_6	-226.76	-125.36	-2.59	5.47	-2.20	-8.97
	L_6-L_7	278.05	-132.91	2.58	5.23	1.76	-9.28
	L_7-L_8	222.98	-243.21	3.71	4.12	-2.52	-8.75
	L_8-L_9	1.41	1.41	0.00	0.00	0.00	0.00
	L_9-L_{10}	-167.58	-470.72	4.66	3.35	-16.69	-14.06
	L_{10}-L_{11}	-445.06	-93.48	0.91	-14.89	-14.93	
	L_{11}-L_{12}	291.79	-319.50	2.11	7.17	-61.25	-38.69
	L_{12}-L_{13}	-392.27	38.30	0.00	0.00	-5.36	-2.58
	L_{13}-L_{14}	1.41	1.41	0.00	0.00	0.00	0.00
	L_{14}-L_{15}	-297.04	199.10	-6.54	1.58	1.47	-6.61
	L_{15}-L_{16}	1.41	1.41	0.00	0.00	0.00	0.00
	L_{16}-L_{17}	24.53	-109.42	-0.32	0.50	3.53	-5.63
	L_{17}-L_{18}	139.90	-177.77	-0.32	0.71	2.23	-6.10
	L_{18}-L_{19}	-11.57	-138.73	-0.35	0.61	1.40	-5.35
	L_{19}-L_{20}	47.96	-293.64	-0.24	0.98	-0.50	-8.14
	L_0-L_2	1.41	1.41	0.00	0.00	0.00	0.00
	L_2-L_4	-47.68	-343.07	0.26	1.80	-2.90	-19.74
	L_4-L_6	291.79	-319.50	2.11	7.17	-61.25	-38.69
	L_6-L_8	-392.27	38.30	0.00	0.00	-5.36	-2.58
	L_8-L_{10}	1.41	1.41	0.00	0.00	0.00	0.00
	L_{10}-L_{12}	-297.04	199.10	-6.54	1.58	1.47	-6.61
	L_{12}-L_{14}	1.41	1.41	0.00	0.00	0.00	0.00
	L_{14}-L_{16}	24.53	-109.42	-0.32	0.50	3.53	-5.63
	L_{16}-L_{18}	139.90	-177.77	-0.32	0.71	2.23	-6.10
	L_{18}-L_{20}	-11.57	-138.73	-0.35	0.61	1.40	-5.35
	L_0-L_1	47.96	-293.64	-0.24	0.98	-0.50	-8.14
Structure 2	U_0-U_1	-47.68	-343.07	0.26	1.80	-2.90	-19.74
	U_1-U_2	341.10	86.20	-13.04	3.48	-13.45	-1.62
	U_2-U_3	-120.39	-54.79	-0.23	0.00	-0.23	0.00
	U_3-U_4	-201.09	152.30	-6.17	3.96	0.00	0.00
	U_4-U_5	1.41	1.41	0.00	0.00	0.00	0.00
	U_5-U_6	-148.24	148.96	-3.95	3.03	1.57	-1.98
	U_6-U_7	1.41	1.41	0.00	0.00	0.00	0.00
	U_7-U_8	428.31	-26.46	0.09	6.48	18.41	-1.42
	U_8-U_9	1.41	1.41	0.00	0.00	0.00	0.00
	U_9-U_{10}	70.66	-27.56	0.66	3.08	1.62	-4.62
	U_{10}-U_{11}	1.41	1.41	0.00	0.00	0.00	0.00
	U_{11}-U_{12}	194.48	-25.11	3.48	3.00	2.43	-12.50
	U_{12}-U_{13}	1.41	1.41	0.00	0.00	0.00	0.00
	U_{13}-U_{14}	445.48	-80.88	2.14	0.74	-6.76	-7.31
	U_{14}-U_{15}	1.41	1.41	0.00	0.00	0.00	0.00
	U_{15}-U_{16}	-74.44	-5.53	-3.64	3.27	0.78	-0.68
Structure 3	L_0-L_1	-15.54	-73.33	0.00	0.58	2.73	-3.45
	L_1-L_2	39.76	-67.96	-0.17	2.23	-0.99	-6.31
	L_2-L_3	79.39	-42.20	-1.36	2.40	-3.17	-5.52
	L_3-L_4	-11.34	11.55	1.25	3.99	-3.77	+2.17
	L_4-L_5	-49.11	208.03	-10.39	6.10	-43.11	5.30
	L_5-L_6	-0.48	181.07	-1.13	7.33	-4.51	-0.61
	L_6-L_7	41.44	78.72	-6.07	2.24	2.19	-2.14
	L_7-L_8	-25.11	448.74	-1.35	19.35	0.00	0.00
	L_8-L_9	425.89	-36.02	4.52	0.61	9.89	-1.47
	L_9-L_{10}	150.02	-126.53	-0.73	2.50	-2.79	-4.32
	L_{10}-L_{11}	120.44	-115.99	3.19	1.49	0.98	-4.52
	L_{11}-L_{12}	109.58	-108.12	2.27	1.17	0.89	-4.04
	L_{12}-L_{13}	-45.24	-121.26	1.97	0.84	-2.78	-3.63
	L_{13}-L_{14}	96.32	-264.98	1.60	1.07	1.54	-17.48
	L_{14}-L_{15}	352.24	-64.89	1.34	0.61	7.97	-1.49
	L_{15}-L_{16}	-191.89	-319.35	0.71	0.26	-7.75	-8.23
	L_{16}-L_{17}	339.58	64.88	0.95	1.16	6.48	-3.61
	L_{17}-L_{18}	-154.50	-31.26	-4.45	1.63	6.27	-0.24
	L_{18}-L_{19}	-215.80	145.76	-2.44	0.44	-2.17	-3.45
	L_{19}-L_{20}	-136.32	49.67	-0.86	3.64	0.34	-0.19
	L_0-L_5	-2.68	-185.02	-0.76	1.58	3.45	-8.29
	L_5-L_{10}	313.76	243.23	1.57	0.46	12.75	-8.13
	L_{10}-L_{15}	-4.23	-180.72	-0.24	1.66	-0.79	-7.55
	L_{15}-L_{20}	313.76	243.23	1.57	0.46	12.75	-8.13
	L_0-L_4	-252.85	-295.03	1.50	2.75	-8.73	-11.10
	L_4-L_8	1.41	1.41	0.00	0.00	0.00	0.00
	L_8-L_{12}	-475.08	-292.18	4.28	4.38	-10.79	-19.12
	L_{12}-L_{16}	-280.47	-64.51	3.56	6.30	-17.36	-5.98
	L_{16}-L_{20}	-292.36	219.74	4.44	4.89	-17.36	-5.98
	L_1-L_5	-225.83	141.30	2.52	6.40	-11.84	-0.20
	L_5-L_9	201.52	229.14	4.99	0.00	0.48	0.61
	L_9-L_{13}	-160.03	387.16	-8.33	13.68	0.00	0.00
	L_{13}-L_{17}	-202.71	204.45	-2.82	2.30	-4.02	-11.48
	L_{17}-L_{20}	-374.76	1103.14	-14.38	2.97	-2.79	-4.33
	L_1-L_4	1072.48	412.35	0.00	0.00	37.18	-14.92
	L_4-L_7	339.46	-81.91	-4.36	0.00	-23.77	49.38
	L_7-L_{11}	475.57	-49.03	4.70	2.79	4.71	-5.49
	L_{11}-L_{15}	1.41	1.41	0.00	0.00	0.00	0.00
	L_{15}-L_{18}	226.51	-41.81	4.76	3.31	1.64	-6.15
	L_{18}-L_{20}	214.45	-56.43	2.58	4.63	-1.01	-7.68
	L_0-L_3	1.41	1.41	0.00	0.00	0.00	0.00
	L_3-L_6	49.27	202.49	3.06	5.00	-4.18	-21.90
	L_6-L_{10}	197.10	24.93	4.39	3.00	-4.18	-21.90
	L_{10}-L_{14}	-111.92	0.86	3.43	4.41	-9.68	-5.88
	L_{14}-L_{17}	379.76	1103.14	14.38	2.97	2.79	4.33
	L_{17}-L_{20}	-60.79	179.81	3.18	4.49	0.00	0.00
	L_0-L_1	-81.80	265.56	-8.20	6.99	0.00	0.00
	L_1-L_2	319.46	-81.91	-4.36	0.00	-23.77	49.38
	L_2-L_3	-99.81	-279.28	-0.35	1.92	-1.92	-11.22
	L_3-L_4	371.96	1004.43	-1.63	1.24	-61.25	38.69
	L_4-L_5	1026.29	362.30	0.00	0.00	38.21	-15.04
	L_5-L_6	-226.76	-125.36	-2.59	5.47	-2.20	-8.97
	L_6-L_7	278.05	-132.91	2.58	5.23	1.76	-9.28
	L_7-L_8	222.98	-243.21	3.71	4.12	-2.52	-8.75
	L_8-L_9	1.41	1.41	0.00	0.00	0.00	0.00
	L_9-L_{10}	-167.58	-470.72	4.66	3.35	-16.69	-14.06
	L_{10}-L_{11}	-445.06	-93.48	0.91	-14.89	-14.93	
	L_{11}-L_{12}	291.79	-319.50	2.11	7.17	-61.25	-38.69
	L_{12}-L_{13}	-392.27	38.30	0.00	0.00	-5.36	-2.58
	L_{13}-L_{14}	1.41	1.41	0.00	0.00	0.00	0.00
	L_{14}-L_{15}	-297.04	199.10	-6.54	1.58	1.47	-6.61
	L_{15}-L_{16}	1.41	1.41	0.00	0.00	0.00	0.00
	L_{16}-L_{17}	24.53	-109.42	-0.32	0.50	3.53	-5.63
	L_{17}-L_{18}	139.90	-177.77	-0.32	0.71	2.23	-6.10
	L_{18}-L_{19}	-11.57	-138.73	-0.35	0.61	1.40	-5.35
	L_{19}-L_{20}	47.96	-293.64	-0.24	0.98	-0.50	-8.14
	L_0-L_2	1.41	1.41	0.00	0.00	0.00	0.00
	L_2-L_4	-47.68	-343.07	0.26	1.80	-2.90	-19.74
	L_4-L_6	291.79	-319.50	2.11	7.17	-61.25	-38.69
	L_6-L_8	-392.27	38.30	0.00	0.00	-5.36	-2.58
	L_8-L_{10}	1.41	1.41	0.00	0.00	0.00	0.00
	L_{10}-L_{12}	-297.04	199.10	-6.54	1.58	1.47	-6.61
	L_{12}-L_{14}	1.41	1.41	0.00	0.00	0.00	0.00
	L_{14}-L_{16}	24.53	-109.42	-0.32	0.50	3.53	-5.63
	L_{16}-L_{18}	139.90	-177.77	-0.32	0.71	2.23	-6.10
	L_{18}-L_{20}	-11.57	-138.73	-0.35	0.61	1.40	-5.35
	L_0-L_1	47.96	-293.64	-0.24	0.98	-0.50	-8.14
	U_0-U_1	-47.68	-343.07	0.26	1.80	-2.90	-19.74
	U_1-U_2	341.10	86.20	-13.04	3.48	-13.45	-1.62
	U_2-U_3	-120.39	-54.79	-0.23	0.00	-0.23	0.00
	U_3-U_4	-201.09	152.30	-6.17	3.96	0.00	0.00
	U_4-U_5	1.41	1.41	0.00	0.00	0.00	0.00
	U_5-U_6	-148.24	148.96	-3.95	3.03	1.57	-1.98
	U_6-U_7	1.41	1.41	0.00	0.00	0.00	0.00
	U_7-U_8	428.31	-26.46	0.09	6.48	18.41	-1.42
	U_8-U_9	1.41	1.41	0.00	0.00	0.00	0.00
	U_9-U_{10}	70.66	-27.56	0.66	3.08	1.62	-4.62
	U_{10}-U_{11}	1.41	1.41	0.00	0.00	0.00	0.00
	U_{11}-U_{12}	194.48	-25.11	3.48	3.00	2.43	-12.50
	U_{12}-U_{13}	1.41	1.41	0.00	0.00	0.00	0.00
	U_{13}-U_{14}	445.48	-80.88	2.14	0.74	-6.76	-7.31
	U_{14}-U_{15}	1.41	1.41	0.00	0.00	0.00	0.00
	U_{15}-U_{16}	-74.44	-5.53	-3.64	3.27	0.78	-0.68

ZZ Axis Moments from STAAD

Member	Max. Pos. Mom. Start (k-in)	Max. Pos. Mom. End (k-in)	S_{req} (in^3)	S_x (in^3)	Z_z (in^3)	I (in^4)	I_{eff} (in^4)	Shape Factor a	Shape Factor f	M_p (k-in)	Formula 1.8 Term * F$_y$/S$_{req}$	M_r (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor C_{mod}	C_{calc}
L_0-L_1	-37.77	-76.32	33.03	162.63	83.6	83.58	74.65	100.97	2577	1026.3	1.21	3332	0.99900394	2755.4	-0.203
L_1-L_2	48.44	-70.81	32.37	-237.38	83.6	83.58	67.49	100.97	2577	1026.3	1.21	3332	0.99900394	2755.4	-0.136
L_2-L_3	-75.95	-40.37	-50.48	-162.44	99.5	99.53	91.00	129.45	3409	1372.0	1.26	4141	0.99911881	3294.8	0.397
L_3-L_4	9.70	92.75	-88.25	-222.26	99.9	99.93	84.14	129.49	3409	1372.0	1.26	4141	0.99911881	3294.8	0.397
L_4-L_5	-265.57	260.57	107.91	275.04	92.6	92.58	76.68	114.47	3186	1282.0	1.24	3777	0.99913181	3052.5	-0.078
L_5-L_6	-52.53	378.33	-88.48	223.50	104.6	104.58	95.61	136.57	4040	1678.1	1.31	4520	0.99923445	3448.5	-0.060
L_6-L_7	-117.22	187.27	-11.21	-76.70	114.5	114.45	129.09	152.94	5091	2102.4	1.34	6364	0.99914981	4776.0	-0.891
L_7-L_8	-58.97	960.68	-32.65	583.36	145.8	145.75	130.44	228.84	6500	2932.4	1.57	7552	0.99952915	4806.3	-0.081
L_8-L_9	641.70	-34.93	746.51	75.57	145.8	145.75	136.74	228.84	6500	2932.4	1.57	7552	0.99951691	4806.4	-0.101
L_9-L_{10}	180.87	-118.80	249.42	-248.80	144.9	144.85	129.09	192.84	5010	2379.8	1.33	6364	0.99914981	4776.1	-0.959
L_{10}-L_{11}	-218.80	-121.69	175.66	-238.86	92.6	92.58	83.65	114.47	3295	1304.9	1.24	3777	0.99913872	3052.5	-0.735
L_{11}-L_{12}	-267.11	-234.79	190.21	-474.71	92.6	92.58	83.65	114.47	3295	1304.9	1.24	3777	0.99913872	3052.5	-0.735
L_{12}-L_{13}	-20.50	-139.41	-113.19	-229.37	130.1	130.08	121.10	170.72	3885	1793.2	1.31	5634	0.99922662	4288.6	0.495
L_{13}-L_{14}	-156.42	-440.66	155.31	-802.25	162.9	162.89	147.19	219.93	6987	2613.8	1.35	7258	0.99910S	5370.6	-0.194
L_{14}-L_{15}	-427.51	-22.78	-373.3	-64.20	114.5	114.45	104.62	152.94	5091	2102.4	1.34	6364	0.99914981	4776.0	-0.891
L_{15}-L_{16}	-235.63	-408.74	-600.61	-574.40	179.7	179.69	170.68	251.43	8293	3050.7	1.40	8297	0.99913252	5924.6	0.697
L_{16}-L_{17}	-615.88	51.91	-549.29	-48.25	163.9	163.89	138.16	236.43	7872	2460.7	1.34	8297	0.99914981	5273.9	-1.031
L_{17}-L_{18}	-287.59	-8.91	-195.51	-45.38	121.1	121.08	112.11	157.22	3591	1640.0	1.30	5188	0.99904481	3891.8	0.031
L_{18}-L_{19}	-386.52	231.71	-271.86	185.18	83.6	83.58	74.62	100.97	2740	1090.2	1.21	3332	0.99905917	2755.5	-0.959
L_{19}-L_{20}	-291.40	133.88	-170.60	60.91	83.6	83.58	67.49	100.97	2740	1090.2	1.21	3332	0.99905359	2755.5	-0.499
L_0-L_5	-18.38	-209.73	63.80	-402.16	122.0	122.01	103.28	148.92	3592	1395.7	1.22	4914	0.99853332	4022.0	-0.159
L_5-L_{10}	164.14	-278.87	228.23	-369.33	122.0	122.01	103.28	148.92	3592	1395.7	1.22	4914	0.99853332	4022.0	-0.159
L_{10}-L_{15}	-10.20	-202.64	-20.81	-382.12	162.5	162.51	151.98	209.67	4946	2152.2	1.29	6919	0.99904246	5357.7	0.054
L_{15}-L_{20}	-3.53	-202.64	-20.81	-382.12	162.5	162.51	151.98	209.67	4946	2152.2	1.29	6919	0.99904246	5357.7	0.054
L_0-L_4	-299.43	-329.99	-499.01	-699.91	174.3	174.28	163.71	320.70	7266	3127.5	1.84	10583	0.99952244	5746.8	0.832
L_4-L_8	1.41	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00000000	0.0	0.000
L_8-L_{12}	-61.24	-607.14	235.14	-1129.71	174.3	174.28	163.71	320.70	7266	3127.5	1.84	10583	0.99952244	5746.8	0.832
L_{12}-L_{16}	-634.14	-242.31	-828.01	-701.71	216.3	216.33	205.74	344.78	7625	3425.8	1.59	11379	0.99911744	7132.6	0.846
L_{16}-L_{20}	-296.12	38.91	-703.14	-200.40	205.7	205.71	195.15	274.47	5445	2642.2	1.33	9057	0.99895457	6781.3	0.285
L_1-L_5	-294.62	363.92	-241.39	60.74	169.2	169.19	159.22	224.64	5010	2379.8	1.33	6364	0.99914981	4776.1	-0.959
L_5-L_9	236.57	308.46	-524.37	179.82	149.0	149.01	130.61	189.42	4793	1908.4	1.27	6251	0.99904981	4912.7	-0.343
L_9-L_{13}	-594.76	363.82	-251.39	-90.74	169.2	169.19	159.22	224.64	5010	2379.8	1.33	6364	0.99914981	4776.1	-0.959
L_{13}-L_{17}	-370.90	770.03	-298.04	503.30	165.6	165.55	155.01	222.43	5842	2444.6	1.34	7340	0.99916251	5468.6	-0.481
L_{17}-L_{20}	-318.51	-220.95	-341.93	-489.58	226.0	225.96	215.39	304.84	7486	3164.4	1.39	11452	0.99900705	7449.1	0.698
L_1-L_4	-769.90	-272.12	-1012.72	-698.49	226.0	225.96	208.81	347.03	8498	3698.4	1.39	11452	0.99900000	8222.0	-0.390
L_4-L_7	1394.19	-536.06	2119.26	-826.90	249.4	249.40	238.81	347.03	8498	3698.4	1.39	11452	0.99900000	8222.0	-0.390
L_7-L_{11}	-515.92	-39.12	-633.27	-49.38	226.0	225.96	215.39	304.84	7486	3164.4	1.39	11452	0.99916251	5468.6	-0.481
L_{11}-L_{15}	1.41	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00000000	0.0	0.000
L_{15}-L_{18}	-923.39	-9.37	-703.66	-110.80	180.3	180.26	169.70	249.67	6400	2721.8	1.36	8701	0.99915S7	6543.8	-0.243
L_{18}-L_{20}	-1000.74	-1.64	-1.64	-1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00000000	0.0	0.000
L_0-L_3	-387.25	-52.26	-326.43	-174.36	127.4	127.41	116.92	157.02	3868	1501.0	1.23	5182	0.99898898	4200.3	0.026
L_3-L_6	-529.10	-14.25	-299.09	-225.64	127.4	127.41	108.77	157.02	3868	1501.0	1.23	5182	0.99898891	4200.3	0.043
L_6-L_{10}	-152.86	-88.64	-153.94	-293.22	127.4	127.41	116.92	157.02	3868	1501.0	1.23	5182	0.99898898	4200.3	0.026
L_{10}-L_{14}	-123.69	-165.79	-17.49	-660.28	161.2	161.16	142.40	207.64	4974	2128.2	1.29	6852	0.99905S7	5313.3	0.025
L_{14}-L_{17}	-1.64	-10.72	-14.19	-9.20	161.2	161.16	142.40	207.64	4974	2128.2	1.29	6852	0.99905S7	5313.3	0.025
L_{17}-$L_{20}

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Member
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors: DL Factor= 1.30, LL Factor= 2.17
Pedestrian Load Factors: DL Factor= 1.30, LL Factor= 1.60

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Min) End (k-ft)	Lane Reduction & Impact Live Load Max Start (k-ft)	Lane Reduction & Impact Live Load Max End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	U_0~L_1	-29.84	49.00	-2.45	2.99	0.83	-0.94	-22.04	26.94	7.46	-8.49
	U_1~L_1	-9.06	15.16	-2.41	2.41	0.80	-0.84	-21.73	21.72	7.17	-7.59
	U_1~L_2	-16.00	9.71	-2.00	2.44	0.56	-1.09	-18.00	22.06	8.55	-9.78
	U_2~L_2	33.43	-34.38	-2.28	2.43	0.91	-1.11	-20.51	21.91	8.19	-9.95
	U_2~L_3	41.60	-42.42	-2.50	3.00	0.91	-0.98	-16.98	-16.88	0.00	0.00
	U_3~L_3	45.52	-51.05	0.00	0.00	4.14	-4.28	0.00	0.00	37.30	-38.48
	U_3~L_4	53.57	-55.55	0.00	0.00	4.14	-4.28	0.00	0.00	28.42	-32.04
	U_4~L_4	91.21	-101.85	0.00	0.00	6.12	-5.45	0.00	0.00	46.10	-49.07
	U_4~L_5	-20.53	21.18	-3.09	3.70	4.66	-5.41	-27.79	33.31	40.15	-48.66
	U_5~L_5	-135.19	155.81	-4.57	5.01	0.00	0.00	-47.14	55.55	0.00	0.00
	U_5~L_6	-88.41	88.14	-2.95	3.24	-0.27	-0.15	-26.06	29.12	-2.39	-1.36
	U_6~L_6	-91.02	93.29	-2.95	4.71	0.00	0.00	-45.09	42.41	0.00	0.00
	U_6~L_7	-79.50	78.32	-3.33	3.01	0.00	0.00	-30.00	31.56	0.00	0.00
	U_7~L_7	-49.20	60.09	-3.88	3.98	0.00	0.00	-34.89	35.83	0.00	0.00
	U_7~L_8	-29.72	34.60	-3.33	4.50	0.00	0.00	-41.57	-25.06	0.00	0.00
	U_8~L_8	-1.46	-2.70	-0.47	0.52	3.07	3.10	-4.27	4.67	27.60	27.87
	U_8~L_9	34.16	-36.57	-0.46	0.45	2.52	2.63	-4.11	4.07	22.67	23.65
	U_9~L_9	46.21	-55.82	-0.32	0.33	2.98	-3.09	-2.92	3.00	26.83	27.82
	U_9~L_{10}	110.34	-114.53	-0.44	0.44	4.49	-4.70	-3.92	3.92	40.40	42.26
	U_{10}~L_{10}	121.24	-131.09	-0.39	0.39	4.60	-4.79	-3.48	3.47	41.40	43.09
	U_{10}~L_{11}	-134.20	-173.18	-0.21	0.31	4.36	-5.28	-1.93	2.82	39.22	47.51
	U_{11}~L_{11}	-114.26	168.30	-0.35	0.27	4.16	-3.79	-2.52	2.43	37.46	36.41
	U_{11}~L_{12}	-124.38	133.15	-4.79	5.26	1.16	-1.23	-43.11	47.38	10.45	-11.09
	U_{12}~L_{12}	-118.97	118.97	-4.63	4.87	1.13	-1.36	-41.66	41.66	10.19	-12.22
	U_{12}~L_{13}	-56.00	62.15	-2.30	2.64	0.80	-0.84	-20.74	22.83	7.18	-7.52
	U_{13}~L_{13}	-34.04	39.78	-2.30	2.28	0.80	-0.84	-20.48	20.48	7.18	-7.17
	U_{13}~L_{14}	-7.09	12.30	-1.88	2.10	0.92	-0.96	-16.95	18.94	8.26	-8.64
	U_{14}~L_{14}	15.85	-15.58	-1.77	1.83	0.77	-0.87	-15.96	16.44	6.90	-7.83
	U_{14}~L_{15}	38.85	-44.93	0.00	0.00	3.11	-3.13	0.00	0.00	28.00	-28.27
	U_{15}~L_{15}	86.89	-96.05	0.00	0.00	3.92	-3.92	0.00	0.00	35.27	-35.27
	U_{15}~L_{16}	155.09	-164.45	0.00	0.00	3.99	-3.76	0.00	0.00	35.92	-42.79
	U_{16}~L_{16}	141.21	-149.39	0.00	0.00	5.17	-5.39	0.00	0.00	46.51	-48.15
	U_{16}~L_{17}	192.53	-192.81	0.00	0.00	4.59	-5.13	0.00	0.00	41.28	-46.74
	U_{17}~L_{17}	147.39	-149.76	0.00	0.00	4.59	-5.13	0.00	0.00	41.28	-46.74
	U_{17}~L_{18}	203.50	-203.15	0.00	0.00	6.75	-6.79	0.00	0.00	60.72	-61.10
	U_{18}~L_{18}	60.02	-59.44	0.00	0.00	6.75	-6.79	0.00	0.00	60.72	-61.10
	U_{18}~L_{19}	-159.87	162.82	-6.75	6.72	1.08	-0.91	-60.73	60.44	9.70	-8.19
	U_{19}~L_{19}	-113.84	114.42	-6.65	6.57	1.07	-0.91	-59.85	59.85	9.63	-8.19
	U_{19}~L_{20}	-130.37	127.18	-7.62	7.53	0.66	-0.83	-68.62	67.79	5.90	-7.47
	U_{20}~L_{20}	-113.07	114.60	-6.07	5.91	0.38	-0.72	-45.62	53.16	3.38	-6.49
	U_{20}~L_{21}	-47.60	47.44	-2.96	2.96	0.00	0.00	-14.58	14.58	0.00	0.00
	U_{21}~L_{21}	-44.77	46.58	-2.30	2.47	0.05	-0.10	-20.69	22.20	0.47	-0.89
	U_{21}~L_{22}	-30.30	34.39	-2.30	2.47	0.05	-0.10	-20.69	20.69	0.47	-0.89
	U_{22}~L_{22}	-3.70	4.34	-0.47	0.55	0.70	-0.80	-4.28	4.98	6.33	-7.21
	U_{22}~L_{23}	22.64	-24.75	-0.08	0.07	0.11	-0.12	-0.68	0.61	1.00	-1.07
	U_{23}~L_{23}	39.39	-42.12	-0.12	0.13	2.49	-2.63	-1.07	1.18	22.43	-23.64
	U_{23}~L_{24}	88.55	-87.48	-0.10	0.16	3.67	-3.60	-0.89	1.45	33.02	-32.40
	U_{24}~L_{24}	78.55	-72.91	-0.36	0.38	3.67	-3.60	-4.14	4.55	33.02	-32.40
	U_{24}~L_{25}	138.22	-138.66	-0.48	0.53	8.15	-8.15	-4.35	4.82	73.36	-73.33
	U_{25}~L_{25}	129.45	-129.45	-0.48	0.53	8.15	-8.15	-4.35	4.82	73.36	-73.33
	U_{25}~L_{26}	173.80	-176.10	0.00	0.00	7.92	-7.83	-6.69	7.71	71.29	-70.45
	U_{26}~L_{26}	121.38	-121.38	0.00	0.00	7.92	-7.83	-6.69	7.71	71.29	-70.45
	U_{26}~L_{27}	-167.09	167.27	-6.62	6.63	0.56	-0.52	-59.42	59.66	4.96	-4.65
	U_{27}~L_{27}	-116.04	109.89	-5.38	5.10	0.47	-0.91	-50.25	45.88	4.22	-8.23
	U_{27}~L_{28}	-34.38	37.47	-1.42	1.47	0.00	-1.95	-14.67	16.07	0.00	-17.59
	U_{28}~L_{28}	-119.83	124.38	-3.67	4.14	0.00	0.00	-33.01	37.25	0.00	0.00
	U_{28}~L_{29}	-79.34	79.34	-3.67	4.14	0.00	0.00	-33.01	33.01	0.00	0.00
	U_{29}~L_{29}	-79.51	88.86	-3.54	3.61	0.00	0.00	-37.86	32.50	0.00	0.00
	U_{29}~L_{30}	-43.96	51.93	-0.86	1.06	0.00	0.00	-7.70	9.56	0.00	0.00
	U_{30}~L_{30}	-28.91	31.03	-0.86	1.06	0.00	0.00	-7.70	7.70	0.00	0.00
	U_{30}~L_{31}	-5.57	1.81	-1.00	1.04	2.27	-2.46	-9.03	9.35	20.44	-22.12
	U_{31}~L_{31}	24.84	-26.75	-0.29	0.29	0.42	-0.46	-2.80	2.80	3.78	-4.09
	U_{31}~L_{32}	55.25	-61.09	-0.78	0.80	2.87	-3.02	-7.05	7.25	25.80	-27.14
	U_{32}~L_{32}	110.85	-122.73	-1.22	1.22	3.85	-4.04	-11.08	11.08	47.38	-47.97
	U_{32}~L_{33}	-137.13	-150.74	-1.04	1.05	4.96	-5.18	-9.32	9.41	44.62	-46.62
	U_{33}~L_{33}	-165.72	-206.83	-0.72	0.99	4.42	-5.82	-6.46	8.87	39.80	-52.42
	U_{34}~L_{34}	-79.72	-143.30	-0.11	0.49	2.42	-4.42	-2.76	4.67	14.63	-26.61
	U_{35}~L_{35}	-109.81	-112.89	-0.94	4.31	0.47	-0.50	-35.46	38.80	4.23	-4.48
	U_{36}~L_{36}	-33.05	-33.05	-0.94	4.31	0.47	-0.50	-33.05	33.05	4.23	-4.48
	U_{37}~L_{37}	-38.40	-68.11	-0.19	2.35	0.35	-0.37	-19.75	21.15	3.11	-3.40
	U_{38}~L_{38}	-28.91	-31.03	-0.47	2.27	0.35	-0.37	-19.75	19.75	3.11	-3.40
	U_{39}~L_{39}	-5.57	-2.78	-0.39	2.06	0.43	-0.48	-25.88	26.51	3.88	-4.33
	U_{40}~L_{40}	25.87	-28.68	0.00	0.00	1.41	-1.54	0.00	0.00	12.65	-13.84
	U_{41}~L_{41}	55.25	-61.09	0.00	0.00	1.41	-1.54	0.00	0.00	12.65	-13.84
	U_{42}~L_{42}	75.95	-76.96	0.00	0.00	3.67	-3.82	0.00	0.00	33.03	-34.40
	U_{43}~L_{43}	82.27	-85.87	0.23	0.07	3.88	-3.97	2.07	0.66	34.92	-35.69
	U_{44}~L_{44}	142.63	-166.12	0.00	0.00	5.27	-6.27	0.00	0.00	47.41	-56.40
	U_{45}~L_{45}	111.89	-112.89	-0.94	4.31	0.47	-0.50	-35.46	38.80	4.23	-4.48
	U_{46}~L_{46}	-81.19	89.90	-4.11	4.38	0.00	0.00	-36.95	39.46	0.00	0.00
	U_{47}~L_{47}	-38.99	40.31	-2.04	2.15	0.00	0.00	-18.32	19.31	0.00	0.00
	U_{48}~L_{48}	-37.48	38.73	-1.02	1.19	2.42	-2.52	-8.16	10.74	21.79	-22.64
	U_{49}~L_{49}	-10.29	11.13	-1.07	1.18	2.24	-2.64	-9.65	10.62	20.17	-23.77
	U_{50}~L_{50}	3.53	-11.97	-0.88	0.84	3.57	-3.44	-7.95	7.57	32.10	-30.96
	U_{50}~L_{52}	44.79	-53.89	-0.50	0.77	2.37	-3.54	-4.46	6.89	21.30	-32.73

ZZ Axis Moments from STAAD

Location	Member	Max. Neg. Mom. Start (k-ft)	Max. Neg. Mom. End (k-ft)	S_{bb} (in^3)	S_{tb} (in^3)	Z_z (in^3)	I_z (in^4)	I_{xn} (in^4)	Shape Factor f	M_p (k-in)	Formula 1.8 Term * F$_y$/S_{bb}	M_u (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor $C_{b(a)}$	Equivalent Mom. Factor $C_{b(m)}$
Structure 1	U_0~L_1	-865.55	1322.66	22.63	45.31	15.4	15.42	15.42	23.71	2	791.9	1.54	782	1.5	763.3
	U_1~L_1	-58.85	66.76	3.76	3.76	2.47	15.42	15.42	23.71	2	791.9	1.54	782	1.5	763.3
	U_1~L_2	-25.75	30.54	31.78	-33.81	15.4	15.42	15.42	23.71	2	791.9	1.54	782	1.5	763.3
	U_2~L_2	-0.99	2.78	61.20	-66.24	15.4	15.42	15.42	23.71	2	791.9	1.54	782	1.5	763.3
	U_2~L_3	54.09	-55.14	37.21	-39.54	15.4	15.42	15.42	23.71	2	791.9	1.54	782	1.5	763.3
	U_3~L_3	69.17	-66.37	139.98	-149.75	19.4	19.37	19.31	29.87	3	907.0	1.54	986	1.5	958.8
	U_3~L_4	-264.88	309.90	-175.75	202.55	33.1	33.05	32.91	54.51	14	1439.8	1.65	1799	1.5	1636.0
	U_4~L_4	-172.48	177.67	-120.32	111.64	39.5	35.52	35.44	58.46	14	1309.7	1.65	1929	1.5	1758.2
	U_4~L_5	-195.45	253.08	-118.34	161.17	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6
	U_5~L_5	86.50	99.70	60.31	-77.91	107.1	107.13	107.11	162.71	26	2058.9	1.52	5369	1.5	5302.3
	U_5~L_6	-264.88	309.90	-175.75	202.55	33.1	33.05	32.91	54.51	14	1439.8	1.65	1799	1.5	1636.0
	U_6~L_6	-172.48	177.67	-120.32	111.64	39.5	35.52	35.44	58.46	14	1309.7	1.65	1929	1.5	1758.2
	U_6~L_7	-195.45	253.08	-118.34	161.17	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6
	U_7~L_7	-168.35	170.20	-102.36	101.81	21.1	21.09	21.09	35.48	10	1134.0	1.69	1299	1.5	1154.0
	U_7~L_8	-139.56	155.75	-83.96	78.12	17.2	17.24	17.24	28.54	2	824.7	1.54	876	1.5	853.4
	U_8~L_8	-64.57	-75.06	-37.21	-43.16	15.4	15.42	15.42	23.71	2	791.9	1.54	782	1.5	763.3
	U_8~L_9	-54.59	-65.14	-32.62	-37.81	15.4	15.42	15.42	23.71	2	791.9	1.54	782	1.5	763.3
	U_9~L_9	-53.76	-66.08	118.21	-132.85	19.4	19.37	19.37	29.87	3	907.0	1.54	986	1.5	958.8
	U_9~L_{10}	-134.83	-140.27	231.07	-240.46	33.1	35.09	35.09	53.51	4	1157.1	1.53	1766	1.5	1737.2
	U_{10}~L_{10}	-550.07	-182.91	247.32	-263.68	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6
	U_{10}~L_{11}	-170.29	-219.03	259.44	-328.07	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6
	U_{11}~L_{11}	-252.84	343.12	-239.90	325.56	42.7	42.74	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1
	U_{11}~L_{12}	-256.09	275.75	-139.09	149.08	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1
	U_{12}~L_{12}	-118.97	-63.63	-64.57	-34.53	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1
	U_{12}~L_{13}	-117.73	130.27	-57.30	64.52	21.5	21.54	21.54	33.27	5	987.9	1.54	1098	1.5	1066.2
	U_{13}~L_{13}	-20.48	20.48	-9.97	9.97	21.5	21.54	21.54	33.27	5	987.9	1.54	1098	1.5	1066.2
	U_{13}~L_{14}	-16.95	18.94	8.26	-8.64	0.00	0.00	-45.88	57.02	7.54	751.9	1.54	782	1.5	763.3
	U_{14}~L_{14}	-15.96	16.44	6.90	-7.83	0.00	0.00	-13.98	15.37	35.56	-37.22
	U_{14}~L_{15}	0.00	0.00	3.11	-11.33	0.00	0.00	50.50	-58.41	71.54	-82.76
	U_{15}~L_{15}	0.00	0.00	35.27	-35.27	0.00	0.00	-112.96	-124.86	189.38	-201.28
	U_{15}~L_{16}	0.00	0.00	35.92	-42.79	0.00	0.00	-207.37	-207.27	270.39	-270.29
	U_{16}~L_{16}	0.00	0.00	46.51	-48.15	0.00	0.00	183.57	-194.21	284.34	-298.53
	U_{16}~L_{17}	0.00	0.00	41.28	-46.74	0.00	0.00	-199.69	-196.05	289.13	-297.32
	U_{17}~L_{17}	0.00	0.00	41.28	-46.74	0.00	0.00	-339.42	-342.63	-166.81	193.92
	U_{18}~L_{18}	0.00	0.00	60.72	-61.10	0.00	0.00	-354.55	-354.09	396.12	-396.48
	U_{18}~L_{19}	0.00	0.00	60.72	-61.10	0.00	0.00	-21.20	-21.20	54.49	-54.49
	U_{19}~L_{19}	-60.73	60.44	9.70	-8.19	0.00	0.00	-339.42	-342.63	-166.81	193.92
	U_{19}~L_{20}	-59.85	59.85	9.63	-8.19	0.00	0.00	-318.95	-318.95	396.12	-396.48
	U_{20}~L_{20}	-68.62	67.79	5.90	-7.47	0.00	0.00	-318.95	312.21	-166.69	149.15
	U_{20}~L_{21}	-45.62	53.16	3.38	-6.49	0.00	0.00	-245.84	264.17	-139.68	134.92
	U_{21}~L_{21}	-14.58	14.58	0.00	0.00	0.00	0.00	-144.58	-145.37	-69.72	69.72
	U_{21}~L_{22}	-20.69	22.20	0.47	-0.89	0.00	0.00	-103.03	-108.66	-57.19	58.62
	U_{22}~L_{22}	-20.69	20.69	0.47	-0.89	0.00	0.00	-58.11	-58.11	-32.62	32.62
	U_{23}~L_{23}	-4.28	4.98	6.33	-7.21	0.00	0.00	14.03	18.42	8.90	-9.98
	U_{24}~L_{24}	22.64	-24.75	28.76	-28.95	0.00	0.00	49.47	-52.21	100.38	-105.99
	U_{25}~L_{25}	-4.35	4.82	73.36	-73.33	0.00	0.00	170.27	-170.26	338.63	-339.54
	U_{26}~L_{26}	-6.69	7.71	71.29	-70.45	0.00	0.00	225.94	-228.93	380.40	-381.64
	U_{27}~L_{27}	-59.42	59.66	4.96	-4.65	0.00	0.00	-346.33	346.72	-296.44	297.37
	U_{28}~L_{28}	-50.25	45.88	4.22	-8.23	0.00	0.00	2140.4	-1417.25	125.03	43.2
	U_{29}~L_{29}	-14.67	16.07	0.00	-17.59	0.00	0.00	-1172.39	1185.93	-103.36	115.52
	U_{30}~L_{30}	-33.01	37.25	0.00	0.00	0.00	0.00	-227.31	242.41	-155.78	161.70
	U_{31}~L_{31}	-33.01	33.01	0.00	0.00	0.00	0.00	-172.39	185.93	-103.36	115.52
	U_{32}~L_{32}	-37.86	32.50	0.00	0.00	0.00	0.00	-73.71	88.22	-57.01	67.91
	U_{33}~L_{33}	-7.70	9.56	0.00	0.00	0.00	0.00	-54.04	-58.57	-6.26	10.19
	U_{34}~L_{34}	-241.40	11.80	0.00	0.00	0.00	0.00	-2212.1	-2212.1	-1172.39	1185.93
	U_{35}~L_{35}	-35.46	38.80	4.23	-4.48	0.00	0.00	1039.7	1039.7	1143.1	1143.1
	U_{36}~L_{36}	-33.05	33.05	4.23	-4.48	0.00	0.00	-1172.39	1185.93	-103.36	115.52
	U_{37}~L_{37}	-19.75	21.15	3.11	-3.40	0.00	0.00	-62.71	108.37	-43.20	55.35
	U_{38}~L_{38}	-19.75	19.75	3.11	-3.40	0.00	0.00	-62.71	108.37	-43.20	55.35
	U_{39}~L_{39}	-25.88	26.51	3.88	-4.33	0.00	0.00	-69.69	68.35	4.80	1.53
	U_{40}~L_{40}	0.00	0.00	12.65	-13.84	0.00	0.00	33.63	-37.28	61.02	-67.27
	U_{41}~L_{41}	0.00	0.00	12.65	-13.84	0.00	0.00	60.89	-67.24	102.46	-108.81
	U_{42}~L_{42}	0.00	0.00	33.03	-34.40	0.00	0.00	103.15	-100.05	174.71	-174.57
	U_{43}~L_{43}	2.07	0.66	34.92	-35.69	0.00	0.00	124.43	-123.20	196.61	-201.96
	U_{44}~L_{44}	0.00	0.00	47.41	-56.40	0.00	0.00	185.42	-215.92	288.15	-338.13
	U_{45}~L_{45}	-35.46	38.80	4.23	-4.48	0.00	0.00	-1172.39	1185.93	-103.36	115.52
	U_{46}~L_{46}	-36.95	39.46	0.00	0.00	0.00	0.00	-185.59	202.20	-155.55	116.87
	U_{47}~L_{47}	-18.32	19.31	0.00	0.00	0.00	0.00	-91.55	94.25	-51.86	52.40
	U_{48}~L_{48}	-8.16	10.74	21.79	-22.64	0.00	0.00	-68.57	73.61	-1.51	1.29
	U_{49}~L_{49}	-9.65	10.62	20.17	-23.77	0.00	0.00	-34.28	37.48	30.32	-37.03
	U_{50}~L_{50}	-7.95	7.57	32.10	-30.96	0.00	0.00	-12.63	0.84	74.14	-82.64
	U_{50}~L_{52}	-4.46	6.89	21.30	-32.73	0.00	0.00	-48.98	-59.13	104.39	-140.97

YY Axis Moments from STAAD

Location	Member	Max. Neg. Mom. Start (k-ft)	Max. Neg. Mom. End (k-ft)	S_{bb} (in^3)	S_{tb} (in^3)	Z_z (in^3)	I_{zn} (in^4)	I_{xn} (in^4)	Shape Factor f	M_p (k-in)	Formula 1.8 Term * F$_y$/S_{bb}	M_u (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor $C_{b(a)}$	Equivalent Mom. Factor $C_{b(m)}$
Structure 1	U_0~L_1	0.00	0.00	43.56	-51.10	0.00	0.00	122.49	-163.63	216.87	-274.35
	U_1~L_1	0.00	0.00	34.92	-35.69	0.00	0.00	124.43	-123.20	196.61	-201.96
	U_1~L_2	0.00	0.00	31.78	-33.81	15.4	15.42	15.42	23.71	2	791.9
	U_2~L_2	0.00	0.00	61.20	-66.24	15.4	15.42	15.42	23.71	2	791.9
	U_2~L_3	0.00	0.00	37.21	-39.54	15.4	15.42	15.42	23.71	2	791.9
	U_3~L_3	0.00	0.00	37.30	-38.48	0.00	0.00	69.17	-66.37	139.98	-149.75
	U_3~L_4	0.00	0.00	28.42	-32.04	0.00	0.00	72.24	-72.32	-61.54	61.48
	U_4~L_4	0.00	0.00	46.10	-49.07	0.00	0.00	118.58	-132.40	218.46	-238.71
	U_4~L_5	-27.79	33.31	40.15	-48.66	0.00	0.00	-86.90	99.70	60.31	-77.91
	U_5~L_5	-47.14	55.55	0.00	0.00	0.00	0.00	-264.88	309.90	-175.75	202.55
	U_5~L_6	-26.06	29.12	-2.39	-1.36	0.00	0.00	-172.48	177.67	-120.32	111.64
	U_6~L_6	-45.09	42.41	0.00	0.00	0.00	0.00	-195.45	253.08	-118.34	161.17
	U_6~L_7	-30.00	31.56	0.00	0.00	0.00	0.00	-168.35	170.20	-102.36	101.81
	U_7~L_7	-34.89	35.83	0.00	0.00	0.00	0.00	-139.56	155.75	-83.96	78.12
	U_7~L_8	-41.57	-25.06	0.00	0.00	0.00	0.00	-64.57	-75.06	-37.21	-43.16
	U_8~L_8	-4.27	4.67	27.60	-27.87	0.00	0.00	-11.14	6.62	57.91	-63.90
	U_8~L_9	-4.11	4.07	22.67	-23.65	0.00	0.00	35.53	-38.78	50.42	-56.73
	U_9~L_9	-2.92	3.00	26.83	-27.82	0.00	0.00	53.76	-66.08	118.21	-132.85
	U_9~L_{10}	-3.92	3.92	40.40	-42.26	0.00	0.00	134.83	-140.27	231.07	-240.46
	U_{10}~L_{10}	-3.48	3.47	41.40	-43.09	0.00	0.00	150.07	-182.91	247.32	-263.68
	U_{10}~L_{11}	-1.93	2.82	39.22	-47.51	0.00	0.00	170.29	-219.03	259.44	-328.07
	U_{11}~L_{11}	-2.52	2.43	37.46	-36.41	0.00	0.00	252.84	343.12	-239.90	325.56
	U_{11}~L_{12}	-43.11	47.38	10.45	-11.09	0.

Moment (End) - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: **HS20 Lane**
Condition: **As-Built**

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1998

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

| Location | Member | ZZ Axis Moments from STAAD: Dead Load Start (k-in) | End (k-in) | Live Load (Max) Start (k-in) | End (k-in) | Live Load (Min) Start (k-in) | End (k-in) | Pedestrian Load (Max) Start (k-in) | End (k-in) | Pedestrian Load (Min) Start (k-in) | End (k-in) | Lane Reduction & Impact Live Load Start (k-in) | End (k-in) | Lane Reduction & Impact Live Load End (k-in) | Start (k-in) | Impact Pedestrian Load Max End (k-in) | Start (k-in) | Impact Pedestrian Load Min End (k-in) | Max. Neg. Mom. Start (k-in) | End (k-in) | S_{bb} (in^3) | S_{tb} (in^3) | S_{tt} (in^3) | I (in^4) | I_{eff} (in^4) | Shape Factor | M_p (k-in) | Formula 1.8 Term * F_y/S_xx | M_u (k-in) | Equivalent Mom. Factor a | $C_{m(a)}$ | $C_{m(b)}$ | Dead Load Start (k-in) | End (k-in) | Live Load (Max) Start (k-in) | End (k-in) | Live Load (Min) Start (k-in) | End (k-in) | Pedestrian Load (Max) Start (k-in) | End (k-in) | Pedestrian Load (Min) Start (k-in) | End (k-in) | Lane Reduction & Impact Live Load Start (k-in) | End (k-in) | Lane Reduction & Impact Live Load End (k-in) | Start (k-in) | Impact Pedestrian Load Max End (k-in) | Start (k-in) | Impact Pedestrian Load Min End (k-in) | Max. Neg. Mom. Start (k-in) | End (k-in) | S_{bb} (in^3) | S_{tb} (in^3) | Z_f (in^3) | I_{gt} (in^4) | Shape Factor | M_p (k-in) | ϕ_{bb} | Formula 1.8 Term * F_y/S_xx | M_u (k-in) | Equivalent Mom. Factor a | $C_{m(a)}$ | $C_{m(b)}$ | Axial Force (k) | Moment (k-in) | Pass | Axial Force (k) | Moment (k-in) | Total | Pass | Axial Force (k) | Moment (k-in) | Total | Pass | Axial Force (k) | Moment (k-in) | Pass | Axial Force (k) | Moment (k-in) | Total | Pass |
|---|---|---|---

Moment (End) - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LFD) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	U_1-U_2	89.33	-98.19	-2.28	2.05	4.97	-5.18	-0.65	0.45	2.38	-2.03
	U_2-U_3	89.33	-98.19	-2.28	2.05	4.97	-5.18	-0.65	0.45	2.38	-2.03
	U_3-U_4	-130.88	58.71	1.34	3.66	-5.50	-3.02	2.20	0.80	-3.90	1.67
	U_4-U_5	-46.29	16.63	0.23	1.49	-2.24	-1.42	0.72	-0.13	-1.24	0.53
	U_5-U_6	-26.07	74.96	2.65	3.48	-4.47	-1.92	0.47	0.77	-1.36	-0.71
	U_6-U_7	19.43	119.86	4.91	3.80	-0.80	-0.32	-0.65	0.89	0.00	0.00
	U_7-U_8	131.07	62.39	2.65	0.61	0.41	-0.80	-0.32	-0.65	0.89	0.00
	U_8-U_9	-71.37	696.06	-2.09	10.86	1.68	-1.45	-1.34	3.99	0.00	0.00
	U_9-U_{10}	624.62	-195.24	2.33	0.55	-5.38	1.79	0.13	-1.65	27.36	9.96
	U_{10}-U_{11}	71.38	-13.83	0.94	1.85	1.20	-4.17	0.28	0.49	0.23	-0.97
	U_{11}-U_{12}	78.26	-223.12	0.92	1.82	0.87	-4.71	0.49	0.39	0.26	-1.01
	U_{12}-U_{13}	35.32	221.77	1.89	1.26	-10.47	0.56	0.33	0.24	-1.72	20.41
	U_{13}-U_{14}	-120.58	-238.24	1.66	0.65	-5.76	-4.89	0.44	0.14	-0.62	-1.62
	U_{14}-U_{15}	201.64	-423.96	1.10	1.30	-5.32	-9.07	0.29	0.28	-1.36	-2.97
	U_{15}-U_{16}	380.63	-263.81	1.50	0.86	-5.33	-5.41	0.32	0.20	2.38	-1.60
	U_{16}-U_{17}	227.35	-387.93	1.51	0.69	-5.37	-8.27	0.00	0.00	0.00	0.00
	U_{17}-U_{18}	-353.36	-172.80	0.94	0.38	-6.14	-2.40	0.00	0.00	-19.08	-8.23
	U_{18}-U_{19}	-227.35	-24.62	0.41	0.94	-2.30	-1.49	0.02	0.10	-0.08	-0.54
	U_{19}-U_{20}	-214.14	19.61	4.94	0.19	-1.72	-1.32	-1.42	0.34	0.09	-0.06
	U_{20}-U_{21}	-232.24	7.36	2.67	3.02	-1.83	-1.35	0.05	0.06	-0.04	-0.28
	U_{21}-U_{22}	420.38	-379.27	-2.95	0.23	3.23	-3.23	0.00	0.00	0.00	0.00
	U_{22}-U_{23}	-113.13	-299.08	-0.04	1.49	-1.30	-7.25	0.00	0.18	-0.50	-1.31
	U_{23}-U_{24}	-433.72	24.73	0.23	0.07	-7.75	0.25	0.00	0.00	0.00	0.00
	U_{24}-U_{25}	-433.72	-494.87	0.85	2.61	-6.04	-11.73	0.08	0.31	-1.29	-3.60
	U_{25}-U_{26}	-485.37	-542.49	1.22	2.63	-6.76	-12.91	0.08	0.34	-1.43	-3.96
	U_{26}-U_{27}	-543.26	-229.84	2.97	0.48	-10.30	-9.99	0.37	0.87	-2.84	-2.75
	U_{27}-U_{28}	-414.57	-309.81	4.88	4.10	-10.86	-16.87	0.64	0.58	-1.77	-2.26
	U_{28}-U_{29}	388.32	-228.14	3.43	3.73	-9.79	-14.07	0.45	0.49	-1.25	-1.94
	U_{29}-U_{30}	-443.90	-59.15	4.39	5.52	-11.02	-4.06	0.49	0.82	-2.01	-0.82
	U_{30}-U_{31}	-165.92	30.76	3.80	4.93	-9.63	-2.25	0.43	0.77	-1.80	0.34
	U_{31}-U_{32}	-165.92	101.76	5.80	4.97	-9.63	-2.25	0.77	0.79	1.44	-0.29
	U_{32}-U_{33}	-149.71	264.88	2.39	5.92	-3.44	-1.33	-0.68	1.10	0.00	0.00
	U_{33}-U_{34}	-291.45	80.79	4.89	6.09	-7.98	-2.62	0.68	0.50	0.00	0.00
	U_{34}-U_{35}	-291.45	1963.41	3.89	23.40	3.37	-4.70	-1.35	5.47	0.00	0.00
	U_{35}-U_{36}	1538.34	-1963.41	23.40	3.89	-4.70	3.37	5.47	-1.35	0.00	0.00
	U_{36}-U_{37}	-27.62	20.42	0.75	3.51	0.90	-6.08	0.13	0.62	-0.37	-0.96
	U_{37}-U_{38}	301.53	-242.84	3.51	0.75	-4.73	0.90	-6.08	0.13	0.62	-0.37
	U_{38}-U_{39}	186.22	-233.02	2.26	3.41	1.43	-7.93	0.46	0.70	0.18	-1.19
	U_{39}-U_{40}	179.28	-73.30	3.28	4.15	-0.36	-6.56	0.59	0.66	0.03	-1.32
	U_{40}-U_{41}	179.28	-73.30	3.28	4.15	-0.36	-6.56	0.59	0.66	0.03	-1.32
	U_{41}-U_{42}	-76.62	-111.17	3.67	3.22	-9.51	-5.29	0.57	0.45	0.79	-1.30
	U_{42}-U_{43}	-158.30	-160.50	3.67	3.22	-9.51	-5.29	0.57	0.45	0.79	-1.30
	U_{43}-U_{44}	-164.26	-164.79	4.49	3.46	-8.67	-6.42	0.68	0.50	1.67	-1.21
	U_{44}-U_{45}	-137.26	-164.79	4.49	3.46	-8.67	-6.42	0.68	0.50	1.67	-1.21
	U_{45}-U_{46}	-44.20	54.61	3.77	3.06	-4.90	-2.43	0.49	0.43	0.96	-0.49
	U_{46}-U_{47}	-69.18	212.29	-3.22	4.71	-2.64	-2.20	0.76	1.00	0.00	0.00
	U_{47}-U_{48}	-40.92	345.56	-2.56	6.71	-1.65	-0.85	-0.61	1.31	0.00	0.00
	U_{48}-U_{49}	91.24	-22.64	4.93	0.76	-1.71	-0.29	0.18	0.04	0.00	0.00
	U_{49}-U_{50}	-149.00	1535.72	-2.86	23.57	4.00	-4.01	-0.98	5.62	0.00	0.00
	U_{50}-U_{51}	1621.12	-341.75	5.92	2.80	24.17	-9.16	1.89	0.56	-1.91	0.69
	U_{51}-U_{52}	1621.12	-341.75	5.92	2.80	24.17	-9.16	1.89	0.56	-1.91	0.69
	U_{52}-U_{53}	253.89	-149.73	3.37	4.35	1.22	-7.50	0.52	0.59	0.48	-1.39
	U_{53}-U_{54}	253.89	-149.73	3.37	4.35	1.22	-7.50	0.52	0.59	0.48	-1.39
	U_{54}-U_{55}	84.18	-327.28	5.03	4.24	-3.24	-10.80	0.74	0.58	-0.40	-1.98
	U_{55}-U_{56}	84.18	-327.28	5.03	4.24	-3.24	-10.80	0.74	0.58	-0.40	-1.98
	U_{56}-U_{57}	-358.58	-362.04	4.04	5.63	-9.81	-18.16	0.64	0.55	1.52	-2.40
	U_{57}-U_{58}	-300.98	-456.96	4.43	3.95	-17.96	-10.67	0.69	0.52	-2.51	-1.72
	U_{58}-U_{59}	-158.30	-160.50	3.67	3.22	-9.51	-5.29	0.57	0.45	0.79	-1.30
	U_{59}-U_{60}	-569.52	-449.99	2.27	1.31	-12.38	-6.32	0.00	0.00	-2.06	-1.25
	U_{60}-U_{61}	-474.07	-449.99	2.27	1.31	-12.38	-6.32	0.00	0.00	-2.06	-1.25
	U_{61}-U_{62}	-406.59	-544.41	-8.33	0.55	-4.90	-0.97	-1.89	0.04	-1.61	-0.19
	U_{62}-U_{63}	-406.59	-544.41	-8.33	0.55	-4.90	-0.97	-1.89	0.04	-1.61	-0.19
	U_{63}-U_{64}	-290.66	-12.32	-0.78	0.99	-2.56	-2.40	-1.64	0.67	0.20	-0.31
	U_{64}-U_{65}	-434.97	-311.66	-1.17	0.65	-7.89	-6.16	0.25	0.07	3.50	-2.00
	U_{65}-U_{66}	-50.48	-220.41	-0.31	0.79	-1.19	-4.47	0.03	0.11	0.79	-1.41
	U_{66}-U_{67}	-21.73	-219.02	-0.37	0.70	0.55	-4.66	-0.12	0.10	0.40	-1.52
	U_{67}-U_{68}	-361.44	-188.09	0.51	1.63	-9.83	-3.70	-0.02	0.37	1.24	-1.70
	U_{68}-U_{69}	-252.08	-374.59	1.12	1.74	-3.95	-8.64	0.20	0.27	3.26	-3.18
	U_{69}-U_{70}	-444.56	-197.91	1.35	0.51	-10.10	-4.15	0.12	0.29	-2.38	-1.45
	U_{70}-U_{71}	-235.24	-84.04	0.96	1.87	-5.54	-1.24	0.14	0.46	1.65	-0.50
	U_{71}-U_{72}	-214.94	-128.20	-3.69	3.05	-1.64	-0.21	-0.39	0.85	0.00	0.00
	U_{72}-U_{73}	-187.04	640.76	-3.29	9.95	1.26	-1.18	-1.47	3.55	0.00	0.00
	U_{73}-U_{74}	-101.33	-63.04	1.75	0.20	-1.00	-0.39	0.53	0.02	-1.79	-0.65
	U_{74}-U_{75}	-55.82	170.13	-0.81	1.31	-0.47	-2.29	0.26	0.12	-1.52	-0.15

ZZ Axis Moment Properties

Location	Member	Start (k-in)	End (k-in)	Max (k-in)	Min (k-in)	S_{bb} (in^3)	S_b (in^3)	S_{tb} (in^3)	J (in^4)	I_{zz} (in^4)	Shape Factor f	M_p (k-in)	Formula 1.8 Term = F$_y$*S_{bb}	M_r (k-in)	Equivalent Mem. Factor a	Equivalent Mem. Factor C_{mm}
Structure 1	U_1-U_2	0.94	0.94	-161.86	-160.19	-0.30	0.42	-4.29	-3.76	0.16	0.19	0.31	-0.99	-3.24	4.56	-46.36
	U_2-U_3	0.94	0.94	-152.79	-2.66	-0.47	-3.64	2.28	0.61	-0.31	0.00	0.00	28.73	-5.03	-39.31	-34.65
	U_3-U_4	0.34	0.34	-19.79	-2.66	-0.47	-3.64	2.28	0.61	-0.31	0.00	0.00	-87.97	-144.53	89.61	-65.77
	U_4-U_5	0.53	0.59	-73.71	3.14	-0.34	2.03	7.27	-6.81	0.07	0.22	-0.69	0.29	-3.64	21.56	78.51
	U_5-U_6	0.59	0.59	-153.23	-68.34	-0.42	0.73	-1.02	-0.69	0.06	0.22	-0.77	-0.10	-4.54	7.64	13.35
	U_6-U_7	0.61	0.61	0.93	-2.40	0.52	0.18	0.21	-0.14	-0.98	0.13	10.09	-25.52	0.83	-2.21	-1.72
	U_7-U_8	0.61	0.61	22.23	-29.57	-1.98	0.76	-2.21	-1.07	0.43	0.00	0.00	-21.42	8.15	-23.85	-11.59
	U_8-U_9	0.22	0.22	86.19	-61.24	-1.91	3.62	-0.65	-0.94	0.76	0.18	-142.56	23.66	-34.01	4.46	6.73
	U_9-U_{10}	0.42	0.42	2197.7	1765.3	1.39	5965	0.998509	4554.8	-0.128	0.55	55	2440.43	327.74	0.24	4.20
	U_{10}-U_{11}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.651	0.34	0.34	-19.79	-2.65	-0.47	-3.64
	U_{11}-U_{12}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.651	0.34	0.34	-19.79	-2.65	-0.47	-3.64
	U_{12}-U_{13}	0.42	0.42	2197.7	1765.3	1.39	5965	0.998509	4554.8	-0.128	0.55	55	2440.43	327.74	0.24	4.20
	U_{13}-U_{14}	0.53	0.59	-73.71	3.14	-0.34	2.03	7.27	-6.81	0.07	0.22	-0.69	0.29	-3.64	21.56	78.51
	U_{14}-U_{15}	0.59	0.59	-153.23	-68.34	-0.42	0.73	-1.02	-0.69	0.06	0.22	-0.77	-0.10	-4.54	7.64	13.35
	U_{15}-U_{16}	0.61	0.61	0.93	-2.40	0.52	0.18	0.21	-0.14	-0.98	0.13	10.09	-25.52	0.83	-2.21	-1.72
	U_{16}-U_{17}	0.61	0.61	22.23	-29.57	-1.98	0.76	-2.21	-1.07	0.43	0.00	0.00	-21.42	8.15	-23.85	-11.59
	U_{17}-U_{18}	0.61	0.61	86.19	-61.24	-1.91	3.62	-0.65	-0.94	0.76	0.18	-142.56	23.66	-34.01	4.46	6.73
	U_{18}-U_{19}	0.22	0.22	2197.7	1765.3	1.39	5965	0.998509	4554.8	-0.128	0.55	55	2440.43	327.74	0.24	4.20
	U_{19}-U_{20}	0.42	0.42	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.651	0.34	0.34	-19.79	-2.65	-0.47	-3.64
	U_{20}-U_{21}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.651	0.34	0.34	-19.79	-2.65	-0.47	-3.64
	U_{21}-U_{22}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	0.147	0.66	0.65	-23.32	-53.13	-3.82	2.11
	U_{22}-U_{23}	0.42	0.42	2197.7	1765.3	1.39	5965	0.998509	4554.8	-0.128	0.55	55	2440.43	327.74	0.24	4.20
	U_{23}-U_{24}	0.53	0.59	-73.71	3.14	-0.34	2.03	7.27	-6.81	0.07	0.22	-0.69	0.29	-3.64	21.56	78.51
	U_{24}-U_{25}	0.59	0.59	-153.23	-68.34	-0.42	0.73	-1.02	-0.69	0.06	0.22	-0.77	-0.10	-4.54	7.64	13.35
	U_{25}-U_{26}	0.61	0.61	0.93	-2.40	0.52	0.18	0.21	-0.14	-0.98	0.13	10.09	-25.52	0.83	-2.21	-1.72
	U_{26}-U_{27}	0.61	0.61	22.23	-29.57	-1.98	0.76	-2.21	-1.07	0.43	0.00	0.00	-21.42	8.15	-23.85	-11.59
	U_{27}-U_{28}	0.61	0.61	86.19	-61.24	-1.91	3.62	-0.65	-0.94	0.76	0.18	-142.56	23.66	-34.01	4.46	6.73
	U_{28}-U_{29}	0.22	0.22	2197.7	1765.3	1.39	5965	0.998509	4554.8	-0.128	0.55	55	2440.43	327.74	0.24	4.20
	U_{29}-U_{30}	0.42	0.42	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.651	0.34	0.34	-19.79	-2.65	-0.47	-3.64
	U_{30}-U_{31}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	0.147	0.66	0.65	-23.32	-53.13	-3.82	2.11
	U_{31}-U_{32}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.955	0.22	0.22	47.17	110.44	-0.37	0.97
	U_{32}-U_{33}	0.42	0.42	2197.7	1765.3	1.39	5965	0.998509	4554.8	-0.128	0.55	55	2440.43	327.74	0.24	4.20
	U_{33}-U_{34}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.955	0.22	0.22	47.17	110.44	-0.37	0.97
	U_{34}-U_{35}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.955	0.22	0.22	47.17	110.44	-0.37	0.97
	U_{35}-U_{36}	0.42	0.42	2197.7	1765.3	1.39	5965	0.998509	4554.8	-0.128	0.55	55	2440.43	327.74	0.24	4.20
	U_{36}-U_{37}	0.53	0.59	-73.71	3.14	-0.34	2.03	7.27	-6.81	0.07	0.22	-0.69	0.29	-3.64	21.56	78.51
	U_{37}-U_{38}	0.59	0.59	-153.23	-68.34	-0.42	0.73	-1.02	-0.69	0.06	0.22	-0.77	-0.10	-4.54	7.64	13.35
	U_{38}-U_{39}	0.61	0.61	0.93	-2.40	0.52	0.18	0.21	-0.14	-0.98	0.13	10.09	-25.52	0.83	-2.21	-1.72
	U_{39}-U_{40}	0.61	0.61	22.23	-29.57	-1.98	0.76	-2.21	-1.07	0.43	0.00	0.00	-21.42	8.15	-23.85	-11.59
	U_{40}-U_{41}	0.61	0.61	86.19	-61.24	-1.91	3.62	-0.65	-0.94	0.76	0.18	-142.56	23.66	-34.01	4.46	6.73
	U_{41}-U_{42}	0.22	0.22	2197.7	1765.3	1.39	5965	0.998509	4554.8	-0.128	0.55	55	2440.43	327.74	0.24	4.20
	U_{42}-U_{43}	0.42	0.42	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.651	0.34	0.34	-19.79	-2.65	-0.47	-3.64
	U_{43}-U_{44}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	0.147	0.66	0.65	-23.32	-53.13	-3.82	2.11
	U_{44}-U_{45}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.955	0.22	0.22	47.17	110.44	-0.37	0.97
	U_{45}-U_{46}	0.42	0.42	2197.7	1765.3	1.39	5965	0.998509	4554.8	-0.128	0.55	55	2440.43	327.74	0.24	4.20
	U_{46}-U_{47}	0.53	0.59	-73.71	3.14	-0.34	2.03	7.27	-6.81	0.07	0.22	-0.69	0.29	-3.64	21.56	78.51
	U_{47}-U_{48}	0.59	0.59	-153.23	-68.34	-0.42	0.73	-1.02	-0.69	0.06	0.22	-0.77	-0.10	-4.54	7.64	13.35
	U_{48}-U_{49}	0.61	0.61	0.93	-2.40	0.52	0.18	0.21	-0.14	-0.98	0.13	10.09	-25.52	0.83	-2.21	-1.72
	U_{49}-U_{50}	0.61	0.61	22.23	-29.57	-1.98	0.76	-2.21	-1.07	0.43	0.00	0.00	-21.42	8.15	-23.85	-11.59
	U_{50}-U_{51}	0.61	0.61	86.19	-61.24	-1.91	3.62	-0.65	-0.94	0.76	0.18	-142.56	23.66	-34.01	4.46	6.73
	U_{51}-U_{52}	0.22	0.22	2197.7	1765.3	1.39	5965	0.998509	4554.8	-0.128	0.55	55	2440.43	327.74	0.24	4.20
	U_{52}-U_{53}	0.42	0.42	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.651	0.34	0.34	-19.79	-2.65	-0.47	-3.64
	U_{53}-U_{54}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	0.147	0.66	0.65	-23.32	-53.13	-3.82	2.11
	U_{54}-U_{55}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.955	0.22	0.22	47.17	110.44	-0.37	0.97
	U_{55}-U_{56}	0.42	0.42	2197.7	1765.3	1.39	5965	0.998509	4554.8	-0.128	0.55	55	2440.43	327.74	0.24	4.20
	U_{56}-U_{57}	0.53	0.59	-73.71	3.14	-0.34	2.03	7.27	-6.81	0.07	0.22	-0.69	0.29	-3.64	21.56	78.51
	U_{57}-U_{58}	0.59	0.59	-153.23	-68.34	-0.42	0.73	-1.02	-0.69	0.06	0.22	-0.77	-0.10	-4.54	7.64	13.35
	U_{58}-U_{59}	0.61	0.61	0.93	-2.40	0.52	0.18	0.21	-0.14	-0.98	0.13	10.09	-25.52	0.83	-2.21	-1.72
	U_{59}-U_{60}	0.61	0.61	22.23	-29.57	-1.98	0.76	-2.21	-1.07	0.43	0.00	0.00	-21.42	8.15	-23.85	-11.59
	U_{60}-U_{61}	0.61	0.61	86.19	-61.24	-1.91	3.62	-0.65	-0.94	0.76	0.18	-142.56	23.66	-34.01	4.46	6.73
	U_{61}-U_{62}	0.22	0.22	2197.7	1765.3	1.39	5965	0.998509	4554.8	-0.128	0.55	55	2440.43	327.74	0.24	4.20
	U_{62}-U_{63}	0.42	0.42	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.651	0.34	0.34	-19.79	-2.65	-0.47	-3.64
	U_{63}-U_{64}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	0.147	0.66	0.65	-23.32	-53.13	-3.82	2.11
	U_{64}-U_{65}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.955	0.22	0.22	47.17	110.44	-0.37	0.97
	U_{65}-U_{66}	0.42	0.42	2197.7	1765.3	1.39	5965	0.998509	4554.8	-0.128	0.55	55	2440.43	327.74	0.24	4.20
	U_{66}-U_{67}	0.53	0.59	-73.71	3.14	-0.34	2.03	7.27	-6.81	0.07	0.22	-0.69	0.29	-3.64	21.56	78.51
	U_{67}-U_{68}	0.59	0.59	-153.23	-68.34	-0.42	0.73	-1.02	-0.69	0.06	0.22	-0.77	-0.10	-4.54	7.64	13.35
	U_{68}-U_{69}	0.61	0.61	0.93	-2.40	0.52	0.18	0.21	-0.14	-0.98	0.13	10.09	-25.52	0.83	-2.21	-1.72
	U_{69}-U_{70}	0.61	0.61	22.23	-29.57	-1.98	0.76	-2.21	-1.07	0.43	0.00	0.00	-21.42	8.15	-23.85	-11.59
	U_{70}-U_{71}	0.61	0.61	86.19	-61.24	-1.91	3.62	-0.65	-0.94	0.76	0.18	-142.56	23.66	-34.01	4.46	6.73
	U_{71}-U_{72}	0.22	0.22	2197.7	1765.3	1.39	5965	0.998509	4554.8	-0.128	0.55	55	2440.43	327.74	0.24	4.20
	U_{72}-U_{73}	0.42	0.42	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.651	0.34	0.34	-19.79	-2.65	-0.47	-3.64
	U_{73}-U_{74}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	0.147	0.66	0.65	-23.32	-53.13	-3.82	2.11
	U_{74}-U_{75}	0.97	0.97	1387.9	1302.6	1.40	4465	0.998731	3184.1	-0.955	0.22	0.22	47.17	110.44	-0.37	0.97

M_y Information

YY Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	U_1-U_2	-202.01	70.38	1.78	2.08	-2.08	-0.74	0.30	0.99	-1.62	-0.15
	U_2-U_3	-214.94	128.20	-3.69	3.05	-1.64	-0.27	-1.39	0.85	0.00	0.00
	U_3-U_4	-291.45	1963.41	-3.89	23.40	3.37	-4.70	-1.35	5.47	0.00	0.00
	U_4-U_5	1538.34	-1963.41	23.40	-3.89	-4.70	3.37	5.47	-1.35	0.00	0.00
	U_5-U_6	-27.62	20.42	0.75	3.51	0.90	-6.08	0.13	0.62	-0.37	-0.96
	U_6-U_7	301.53	-242.84	3.51	0.75	-4.73	0.90	-6.08	0.13	0.62	-0.37
	U_7-U_8	186.22	-233.02	2.26	3.41	1.43	-7.93	0.46	0.70	0.18	-1.19
	U_8-U_9	179.28	-73.30	3.28	4.15	-0.36	-6.56	0.59	0.66	0.03	-1.32
	U_9-U_{10}	179.28	-73.30	3.28	4.15	-0.36	-6.56	0.59	0.66

Moment (End) - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: **HS20 Lane**
Condition: **As-Built**

Vehicle Load Factors: DL Factor= 1.30, LL Factor= 2.17
Pedestrian Load Factors: DL Factor= 1.30, LL Factor= 1.60

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Mxx, Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

| | | | | ZZ Axis Moments from STAAD | | | | | | | | | | | | Max. Pos. Mom. | | | | | | | | | | | |

Moment (End) - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors: LL Factor: 2.17 | Pedestrian Load Factors: DL Factor: 1.39, DL Factor: 1.39, LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Min) Start (k-ft)	Pedestrian Load (Min) End (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Start (k-ft)	Impact Pedestrian Load End (k-ft)
Structure 1	U_0–L_1	-15.70	54.51	-1.01	2.25	0.54	-0.81	-0.04	0.43	0.03	-0.13
	U_1–L_2	-27.61	29.28	-2.68	2.54	1.06	-0.98	-0.57	0.52	0.20	-0.18
	U_2–L_3	-38.51	5.24	-3.70	1.98	1.48	-1.15	-0.26	0.35	-0.22	0.25
	U_3–L_4	-40.61	-41.50	-0.15	0.22	1.58	-1.64	-0.06	0.10	0.17	-0.21
	U_4–L_5	-56.81	-57.80	0.00	0.00	2.21	-2.30	0.00	0.00	0.00	0.00
	L_0–L_1	64.44	-72.22	-0.07	0.14	1.56	-1.68	0.00	0.00	0.00	0.42
	L_1–L_2	64.44	-72.27	-0.74	0.41	1.56	-1.68	-0.04	0.04	0.00	0.42
	L_2–L_3	109.00	-121.35	-0.64	0.67	2.48	-2.64	0.00	0.00	0.00	0.00
	L_3–L_4	-42.62	47.12	-3.11	3.73	2.02	-2.45	-0.77	0.93	0.77	-0.93
	L_4–L_5	-161.01	209.70	-3.52	3.84	1.08	-1.00	-0.76	0.72	0.38	-0.36
	U_0–L_1	-123.92	126.16	-2.58	3.03	-0.23	-0.27	-0.61	0.71	-0.04	-0.05
	U_1–L_2	-127.70	127.45	-2.58	3.15	3.81	-3.67	-0.61	0.74	0.93	-0.89
	U_2–L_3	-106.29	107.56	-1.68	2.02	0.02	-0.53	-0.52	0.55	0.00	0.00
	U_3–L_4	-66.48	79.89	-1.12	1.23	0.02	-0.04	-0.35	0.40	0.00	0.00
	U_4–L_5	31.84	36.79	-0.38	0.38	0.00	0.00	-0.12	0.12	0.00	0.00
	L_0–L_1	17.16	23.69	-0.42	0.46	1.22	-1.39	-0.10	0.11	0.27	-0.30
	L_1–L_2	60.40	64.15	-0.42	0.41	1.68	-1.68	-0.09	0.09	0.37	-0.36
	L_2–L_3	74.44	85.11	-0.32	0.32	1.63	-1.74	-0.06	0.06	0.34	-0.34
	L_3–L_4	167.77	162.63	-0.43	0.43	2.74	-2.84	-0.08	0.08	0.53	-0.53
	L_4–L_5	164.37	173.76	-0.37	0.36	2.50	-2.74	-0.07	0.07	0.91	-0.93
	U_0–L_1	194.92	235.55	-0.24	0.32	2.90	-3.11	-0.06	0.07	1.66	-1.77
	U_1–L_2	133.48	204.38	-0.17	0.21	3.99	-4.26	-0.04	0.05	2.29	-2.72
	U_2–L_3	201.30	204.79	-4.46	4.44	1.16	-1.11	-0.91	0.88	0.15	-0.14
	U_3–L_4	159.18	182.03	-3.88	4.04	1.23	-1.33	-0.79	0.86	0.15	-0.17
	U_4–L_5	-79.54	88.71	-2.14	2.31	0.78	-0.81	-0.37	0.41	0.10	-0.10
	L_0–L_1	-67.01	54.59	-1.85	1.99	0.11	-0.11	-0.38	0.41	0.01	-0.01
	L_1–L_2	-4.04	12.50	1.29	1.50	0.94	-1.00	-0.17	0.21	0.13	-0.13
	L_2–L_3	27.52	-27.99	-0.76	0.81	0.72	-0.82	-0.04	0.05	0.10	-0.12
	L_3–L_4	59.94	-69.39	-0.51	0.59	1.41	-1.59	-0.07	0.08	0.31	-0.37
	L_4–L_5	130.31	141.80	0.00	0.00	2.70	-2.82	0.00	0.00	0.00	0.00
	U_0–L_1	216.98	-231.45	0.00	0.00	3.59	-3.75	0.00	0.00	0.00	0.00
	U_1–L_2	193.18	-200.19	-0.22	0.37	3.95	-3.89	0.00	0.00	0.00	0.00
	U_2–L_3	194.78	-194.55	-0.47	0.60	3.57	-3.53	0.00	0.00	0.00	0.00
	U_3–L_4	177.12	-170.02	-0.35	0.50	3.25	-3.21	0.00	0.00	0.00	0.00
	U_4–L_5	231.65	-230.62	-1.38	1.38	3.58	-3.50	0.00	0.00	0.00	0.00
	L_0–L_1	26.62	-29.24	-0.74	0.74	0.63	-0.63	-0.03	0.03	0.00	0.00
	L_1–L_2	-220.23	219.22	-4.54	4.72	0.53	-0.37	-0.83	0.81	0.00	0.00
	L_2–L_3	-182.78	182.39	-4.52	4.72	0.53	-0.37	-0.83	0.81	0.00	0.00
	L_3–L_4	-182.78	181.59	-4.51	4.63	0.74	-0.89	-0.77	0.78	0.07	0.08
	L_4–L_5	-159.35	160.90	-4.04	4.49	0.50	-0.84	-0.74	0.76	0.07	0.08
	U_0–L_1	60.40	64.15	-0.42	0.41	1.68	-1.68	-0.09	0.09	0.37	-0.36
	U_1–L_2	-69.51	63.36	-1.31	0.22	-0.25	-0.34	0.35	0.00	-0.01	-0.14
	U_2–L_3	-37.62	42.64	-0.33	0.39	-0.23	-0.29	-0.04	0.04	0.00	-0.10
	U_3–L_4	-6.56	-5.01	-0.39	0.67	-0.79	-0.07	0.09	0.13	-0.14	-3.56
	U_4–L_5	28.49	65.08	-0.33	0.39	0.67	-0.79	-0.07	0.09	0.13	-0.14
	L_0–L_1	70.77	-74.09	-0.39	0.41	1.97	-2.16	-0.05	0.05	0.40	-0.41
	L_1–L_2	104.65	-105.00	-0.47	0.50	3.32	-3.21	-0.06	0.06	0.52	-0.51
	L_2–L_3	104.65	-105.79	-0.81	0.79	3.32	-3.21	-0.06	0.06	0.52	-0.51
	L_3–L_4	189.58	-191.05	-0.85	0.99	4.28	-4.31	-0.06	0.06	0.80	-0.81
	L_4–L_5	153.03	-157.72	-0.74	0.93	4.38	-4.16	-0.05	0.06	0.80	-0.81
	U_0–L_1	207.01	-210.59	-1.52	1.90	3.96	-3.89	0.00	0.00	0.81	-0.81
	U_1–L_2	144.02	-148.50	-1.07	1.34	2.77	-2.72	0.00	0.00	0.56	-0.57
	U_2–L_3	-251.15	246.51	-3.73	3.70	0.47	-0.42	-0.82	0.81	0.00	0.00
	U_3–L_4	-185.39	178.08	-3.50	3.64	0.44	-0.80	-0.66	0.69	-0.06	-0.06
	U_4–L_5	-144.02	148.50	-3.08	3.20	0.41	-0.80	-0.66	0.69	-0.06	-0.06
	L_0–L_1	-185.34	192.19	-3.21	3.57	-0.05	-0.15	-0.64	0.64	0.00	0.00
	L_1–L_2	-185.34	192.19	-3.21	3.57	-0.05	-0.15	-0.64	0.64	0.00	0.00
	L_2–L_3	-116.39	129.36	-2.30	2.46	0.00	0.00	-0.42	0.45	0.00	0.00
	L_3–L_4	-52.79	62.48	-0.79	0.84	0.00	0.00	-0.16	0.16	0.00	0.00
	L_4–L_5	-19.71	20.05	-0.81	0.81	0.00	0.00	-0.16	0.16	0.00	0.00
	U_0–L_1	18.83	-25.50	-0.95	0.98	1.81	-1.98	-0.14	0.14	0.22	-0.25
	U_1–L_2	77.03	-77.72	-0.37	0.37	1.77	-1.93	-0.05	0.05	0.22	-0.25
	U_2–L_3	95.02	-96.90	-0.72	0.73	2.24	-2.34	-0.10	0.10	0.37	-0.40
	U_3–L_4	177.21	-183.34	-1.11	1.11	2.24	-2.34	-0.10	0.10	0.37	-0.40
	U_4–L_5	189.59	-202.30	-0.90	0.87	3.46	-3.59	-0.12	0.11	0.78	-0.81
	L_0–L_1	214.89	-270.10	-0.56	0.81	3.34	-3.98	-0.06	-0.10	0.79	-0.93
	L_1–L_2	177.21	-183.34	-1.11	1.11	2.24	-2.34	-0.10	0.10	0.37	-0.40
	L_2–L_3	-186.19	183.63	-3.25	4.16	0.54	-0.10	-1.03	0.43	0.09	-0.38
	L_3–L_4	-186.19	183.63	-3.25	4.16	0.54	-0.10	-1.03	0.43	0.09	-0.38
	L_4–L_5	-66.06	78.17	-2.22	2.36	0.36	-0.36	-0.44	0.48	0.07	-0.07
	U_0–L_1	-11.00	18.48	0.52	0.58	0.40	-0.45	-0.22	0.26	0.10	-0.11
	U_1–L_2	-11.00	18.48	0.52	0.58	0.40	-0.45	-0.22	0.26	0.10	-0.11
	U_2–L_3	39.39	-43.59	0.00	0.00	1.21	-1.37	0.00	0.00	0.00	0.00
	U_3–L_4	119.89	-118.13	0.00	0.00	2.26	-2.29	0.00	0.00	0.56	-0.59
	U_4–L_5	119.89	-118.13	0.00	0.00	2.26	-2.29	0.00	0.00	0.56	-0.59
	L_0–L_1	129.25	-129.19	-0.22	0.38	2.67	-2.29	0.05	0.02	0.62	-0.71
	L_1–L_2	129.25	-129.19	-0.22	0.38	2.67	-2.29	0.05	0.02	0.62	-0.71
	L_2–L_3	180.48	-209.68	-0.63	0.73	3.14	-3.50	0.00	0.00	0.93	-1.09
	L_3–L_4	24.90	-49.24	-3.12	3.54	2.30	-2.94	-0.77	0.86	0.79	-1.01
	L_4–L_5	-121.66	132.24	-2.92	3.05	0.10	-0.07	-0.72	0.78	0.00	0.00
	U_0–L_1	-77.50	76.02	-1.46	1.98	0.01	-0.21	-0.43	0.51	-0.04	-0.03
	U_1–L_2	42.60	70.37	-0.80	0.86	0.03	-0.10	-0.40	0.43	0.00	0.00
	U_2–L_3	-57.67	58.82	-0.71	0.73	0.03	-0.01	-0.32	0.33	0.00	0.00
	U_3–L_4	-41.96	42.31	-0.84	0.88	0.60	-0.75	-0.17	0.20	0.03	-0.06
	U_4–L_5	-9.20	-2.43	-0.93	1.04	1.19	-1.37	-0.19	0.21	0.28	-0.35
	U_0–L_1	28.09	-38.34	-0.82	0.78	1.26	-1.32	-0.15	0.16	0.50	-0.53
	U_1–L_2	78.23	-95.55	-0.49	0.73	1.50	-1.66	-0.15	0.17	0.56	-0.71

ZZ Axis Moment Properties

Member	Start (k-in)	End (k-in)	Max. Pos. Mom. Start (k-in)	Max. Pos. Mom. End (k-in)	S_{top} (in^3)	S_b (in^3)	Z_z (in^3)	J (in^4)	I_{xx} (in^4)	Shape Factor f	M_p (k-in)	Formula 1.8 Term * F/S_{bc}	M_u (k-in)	Equivalent Mom. Factor
U_0–L_1	-44.62	123.61	12.45	62.01	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
U_1–L_2	-78.43	82.09	11.60	15.08	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
U_2–L_3	-108.43	14.76	10.75	12.39	-13.1	-13.4	15.42	23.71	2	751.9	1.54	782	1.5	763.3
U_3–L_4	-114.92	-116.91	0.42	0.62	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
U_4–L_5	-159.97	-162.78	0.00	0.00	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3
L_0–L_1	181.60	-203.61	-3.26	2.75	-13.1	-13.4	15.42	23.71	2	907.0	1.54	986	1.5	958.8
L_1–L_2	181.60	-203.61	-2.08	1.96	-13.1	-13.4	15.42	23.71	2	907.0	1.54	986	1.5	958.8
L_2–L_3	307.35	-342.97	-1.40	1.40	-13.1	-13.4	15.42	23.71	2	907.0	1.54	986	1.5	958.8
L_3–L_4	322.98	-359.74	-0.06	0.10	-13.1	-13.4	15.42	23.71	2	907.0	1.54	986	1.5	958.8
L_4–L_5	451.45	-503.27	0.00	0.00	-13.1	-13.4	15.42	23.71	2	907.0	1.54	986	1.5	958.8
U_0–L_1	548.07	-611.00	3.29	0.00	-13.1	-13.4	15.42	23.71	2	907.0	1.54	986	1.5	958.8
U_1–L_2	377.61	-421.04	2.52	0.00	-13.1	-13.4	15.42	23.71	2	907.0	1.54	986	1.5	958.8
U_2–L_3	-707.39	788.70	2.52	0.00	-13.1	-13.4	15.42	23.71	2	907.0	1.54	986	1.5	958.8
U_3–L_4	-521.63	581.75	2.52	0.00	-13.1	-13.4	15.42	23.71	2	907.0	1.54	986	1.5	958.8
U_4–L_5	-521.63	581.75	2.52	0.00	-13.1	-13.4	15.42	23.71	2	907.0	1.54	986	1.5	958.8
L_0–L_1	1389.6	1.53	2155	1.5	2115.6	-0.790	0.28	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
L_1–L_2	1309.7	1.65	1929	1.5	1758.2	-0.977	0.21	772.20	425.17	9.57	5.28	-5.17	-0.59	-0.68
L_2–L_3	1309.7	1.65	1929	1.5	1758.2	-0.977	0.21	772.20	425.17	9.57	5.28	-5.17	-0.59	-0.68
L_3–L_4	1389.6	1.53	2155	1.5	2115.6	-0.790	0.28	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
L_4–L_5	1389.6	1.53	2155	1.5	2115.6	-0.790	0.28	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
U_0–L_1	1389.6	1.53	2155	1.5	2115.6	-0.790	0.28	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
U_1–L_2	1309.7	1.65	1929	1.5	1758.2	-0.977	0.21	772.20	425.17	9.57	5.28	-5.17	-0.59	-0.68
U_2–L_3	1309.7	1.65	1929	1.5	1758.2	-0.977	0.21	772.20	425.17	9.57	5.28	-5.17	-0.59	-0.68
U_3–L_4	1389.6	1.53	2155	1.5	2115.6	-0.790	0.28	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
U_4–L_5	1389.6	1.53	2155	1.5	2115.6	-0.790	0.28	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
L_0–L_1	1389.6	1.53	2155	1.5	2115.6	-0.790	0.28	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
L_1–L_2	1309.7	1.65	1929	1.5	1758.2	-0.945	0.22	772.20	425.17	9.57	5.28	-5.17	-0.59	-0.68
L_2–L_3	1309.7	1.65	1929	1.5	1758.2	-0.945	0.22	772.20	425.17	9.57	5.28	-5.17	-0.59	-0.68
L_3–L_4	1389.6	1.53	2155	1.5	2115.6	-0.772	0.29	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
L_4–L_5	1389.6	1.53	2155	1.5	2115.6	-0.772	0.29	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
U_0–L_1	1389.6	1.53	2155	1.5	2115.6	-0.772	0.29	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
U_1–L_2	1309.7	1.65	1929	1.5	1758.2	-0.945	0.22	772.20	425.17	9.57	5.28	-5.17	-0.59	-0.68
U_2–L_3	1309.7	1.65	1929	1.5	1758.2	-0.945	0.22	772.20	425.17	9.57	5.28	-5.17	-0.59	-0.68
U_3–L_4	1389.6	1.53	2155	1.5	2115.6	-0.772	0.29	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
U_4–L_5	1389.6	1.53	2155	1.5	2115.6	-0.772	0.29	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
L_0–L_1	1389.6	1.53	2155	1.5	2115.6	-0.790	0.28	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
L_1–L_2	1309.7	1.65	1929	1.5	1758.2	-0.977	0.21	772.20	425.17	9.57	5.28	-5.17	-0.59	-0.68
L_2–L_3	1309.7	1.65	1929	1.5	1758.2	-0.977	0.21	772.20	425.17	9.57	5.28	-5.17	-0.59	-0.68
L_3–L_4	1389.6	1.53	2155	1.5	2115.6	-0.790	0.28	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
L_4–L_5	1389.6	1.53	2155	1.5	2115.6	-0.790	0.28	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
U_0–L_1	1389.6	1.53	2155	1.5	2115.6	-0.790	0.28	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
U_1–L_2	1309.7	1.65	1929	1.5	1758.2	-0.977	0.21	772.20	425.17	9.57	5.28	-5.17	-0.59	-0.68
U_2–L_3	1309.7	1.65	1929	1.5	1758.2	-0.977	0.21	772.20	425.17	9.57	5.28	-5.17	-0.59	-0.68
U_3–L_4	1389.6	1.53	2155	1.5	2115.6	-0.790	0.28	626.28	359.82	6.79	4.34	-7.52	-2.24	0.00
U_4–L_5	1389.6	1.53	2155	1.5	2115.6	-0.790	0.28

Moment (End) - AB2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Vehicle Load Factors: DL Factor: 1.30, LL Factor: 1.65
Pedestrian Load Factors: DL Factor: 1.30, LL Factor: 1.65

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

Location	Member	ZZ Axis Moments from STAAD: Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Max) End (k-ft)	Lane Reduction & Impact Live Load Max Start (k-ft)	Lane Reduction & Impact Live Load Max End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)	Max. Pos. Mom. Start (k-ft)	Max. Pos. Mom. End (k-ft)	Max. Neg. Mom. Start (k-ft)	Max. Neg. Mom. End (k-ft)	S_{top} (in^3)	S_b (in^3)	Z_z (in^3)	I_z (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F_y/S_x	M_z (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor $C_{b(+)}$	Equivalent Mom. Factor $C_{b(-)}$
Structure 1	U_0-L_1	3.65	-1.42	0.01	0.39	-0.02	-0.15	0.15	0.01	0.03	-0.02	-0.13	4.19	-0.24	-1.58	1.75	0.12	-0.34	-0.23	4.47	7.24	4.23	-5.26	15.6	19.63	15.58	25.96	5	804.0	1.66	857	1.5	773.7	0.617	0.85	653	-84.92	-28.02	-8.71	-5.19	2.83	2.73	-1.09	-0.56	0.65	0.50	-94.05	-55.63	30.54	29.47	-13.07	-6.73	6.56	6.00	-314.17	-156.96	-44.22	27.43	100.5	100.60	120.29	66.1	1.20	3970	144	0.94275776	3126.1	0.500	0.80	0.80	0.309	0.088	0.40	Yes	0.187	0.048	0.24	Yes	—	—	—

Moment (End) AB Inventory

Inventory Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
North Truss - Upper Chord	Structure 1	U_0 - U_1	84.91	-595.44	-168	161	-430	-569	6	12	-66	-131	0.097	0.157	0.26	Yes	0.067	0.108	0.18	Yes	0.810	0.186	1.00	Yes	0.803	0.135	0.94	Yes	1.00	**4.77**
		U_1 - U_2	76.79	-598.45	-54	118	-160	-623	-7	-7	-17	-154	0.088	0.174	0.27	Yes	0.060	0.119	0.18	Yes	0.814	0.181	1.00	Yes	0.807	0.148	0.96	Yes	1.00	**2.59**
		U_2 - U_3	187.70	-638.14	-107	305	-455	-301	10	26	-26	129	0.215	0.130	0.35	Yes	0.145	0.085	0.23	Yes	0.868	0.128	1.00	Yes	0.861	0.108	0.97	Yes	1.00	**2.40**
		U_3 - U_4	357.95	-560.14	84	319	-390	-614	5	38	156	62	0.410	0.172	0.59	Yes	0.282	0.118	0.40	Yes	0.762	0.233	1.00	Yes	0.755	0.146	0.91	Yes	1.00	**2.36**
		U_4 - U_5	381.15	-585.63	141	310	-871	-152	22	-31	94	-51	0.437	0.223	0.66	Yes	0.300	0.153	0.46	Yes	0.797	0.196	1.00	Yes	0.790	0.207	1.00	Yes	1.00	**2.49**
		U_5 - U_6	281.46	-490.99	-500	1290	-504	-65	387	-886	1349	-1442	0.323	0.550	0.88	Yes	0.218	0.363	0.59	Yes	0.668	0.331	1.00	Yes	0.662	0.307	0.97	Yes	1.00	**9.43**
		U_6 - U_7	904.20	-----	401	240	-144	37	-322	-133	161	-176	0.865	0.129	1.00	Yes	0.604	0.089	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.12**
		U_7 - U_8	1003.22	-----	-392	1790	-91	778	-211	-221	-241	-116	0.695	0.296	1.00	Yes	0.485	0.201	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.07**
		U_8 - U_9	773.10	-----	720	-96	1689	-788	-659	-156	-383	-56	0.633	0.364	1.00	Yes	0.433	0.248	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.29**
		U_9 - U_{10}	762.98	-----	248	338	267	-277	-258	30	-17	567	0.828	0.167	1.00	Yes	0.561	0.112	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.07**
		U_{10} - U_{11}	365.70	-617.67	371	-28	303	-924	22	102	212	143	0.397	0.241	0.64	Yes	0.264	0.154	0.42	Yes	0.795	0.164	0.96	Yes	0.788	0.207	1.00	Yes	1.00	**3.42**
		U_{11} - U_{12}	-----	-887.87	228	-104	48	-650	112	403	154	611	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.150	1.00	Yes	0.833	0.108	0.95	Yes	1.00	**2.10**
		U_{12} - U_{13}	-----	-1276.00	10	-234	-193	-575	345	206	538	331	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.133	1.00	Yes	0.852	0.079	0.94	Yes	1.00	**2.12**
		U_{13} - U_{14}	-----	-1350.77	-154	-389	-462	-1405	225	177	383	502	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.213	1.00	Yes	0.774	0.155	0.93	Yes	1.00	**1.69**
		U_{14} - U_{15}	-----	-1349.07	-280	-255	-1308	-604	214	29	588	169	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.210	1.00	Yes	0.773	0.144	0.92	Yes	1.00	**1.68**
		U_{15} - U_{16}	-----	-1478.53	-197	-412	-554	-794	79	46	428	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.857	0.135	1.00	Yes	0.848	0.088	0.94	Yes	1.00	**2.04**
		U_{16} - U_{17}	-----	-1407.95	-329	-185	-1141	-441	182	-34	624	84	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.178	1.00	Yes	0.807	0.126	0.94	Yes	1.00	**2.66**
		U_{17} - U_{18}	-----	-1101.89	-674	106	-355	-85	459	-59	251	-264	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.121	1.00	Yes	0.862	0.110	0.98	Yes	1.00	**2.45**
		U_{18} - U_{19}	-----	-735.62	-711	-41	-191	-75	462	-279	15	-116	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.156	1.00	Yes	0.828	0.143	0.98	Yes	1.00	**2.63**
		U_{19} - U_{20}	-----	-467.42	-1538	2335	-534	43	411	-1336	67	-61	-----	-----	-----	-----	-----	-----	-----	-----	0.531	0.332	0.87	Yes	0.526	0.470	1.00	Yes	1.00	**5.67**
	Structure 2	U_0 - U_1	-----	-653.56	-103	-10	-177	-1305	8	-61	-55	-119	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.221	1.00	Yes	0.772	0.222	1.00	Yes	1.00	**5.52**
		U_1 - U_2	-----	-875.41	-55	-146	45	-875	-73	-220	-35	-154	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.141	1.00	Yes	0.845	0.133	0.98	Yes	1.00	**2.95**
		U_2 - U_3	-----	-1204.67	-108	-228	-71	-1128	-23	407	-84	109	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.130	1.00	Yes	0.855	0.115	0.97	Yes	1.00	**2.58**
		U_3 - U_4	-----	-1456.48	-400	-372	-803	-1058	260	366	172	129	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.157	1.00	Yes	0.829	0.094	0.93	Yes	1.00	**2.25**
		U_4 - U_5	-----	-1547.72	-453	-329	-827	-1386	808	319	241	139	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.193	1.00	Yes	0.795	0.115	0.91	Yes	1.00	**1.99**
		U_5 - U_6	-----	-1646.00	-392	71	-1153	-772	182	-246	264	380	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.143	1.00	Yes	0.845	0.096	0.95	Yes	1.00	**1.96**
		U_6 - U_7	-----	-1396.49	-260	-83	-958	-1432	-151	-196	337	135	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.192	1.00	Yes	0.795	0.128	0.93	Yes	1.00	**1.59**
		U_7 - U_8	-----	-1407.45	-178	-154	-1532	-825	-114	-192	207	53	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.186	1.00	Yes	0.801	0.137	0.94	Yes	1.00	**1.62**
		U_8 - U_9	-----	-1275.38	-245	157	-960	-399	-108	-208	310	-228	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.121	1.00	Yes	0.865	0.102	0.97	Yes	1.00	**1.78**
		U_9 - U_{10}	526.58	-996.36	146	620	-1063	-267	-224	-196	467	-274	0.386	0.180	0.57	Yes	0.261	0.122	0.39	Yes	0.865	0.134	1.00	Yes	0.860	0.129	0.99	Yes	1.00	**3.35**
		U_{10} - U_{11}	657.81	-828.51	291	470	-1089	-97	-217	-183	334	-135	0.556	0.194	0.76	Yes	0.378	0.126	0.51	Yes	0.828	0.170	1.00	Yes	0.823	0.154	0.98	Yes	1.00	**2.92**
		U_{11} - U_{12}	827.38	-432.87	-1623	1207	-668	123	377	-181	-84	-511	0.699	0.291	1.00	Yes	0.469	0.195	0.67	Yes	0.433	0.133	0.57	Yes	0.430	0.229	0.66	Yes	1.00	**5.67**
		U_{12} - U_{13}	1269.77	-----	560	160	-761	-304	-477	-412	427	-452	0.857	0.141	1.00	Yes	0.611	0.097	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.83**
		U_{13} - U_{14}	1235.58	-----	-861	3518	-274	1458	-416	-867	-428	-454	0.608	0.385	1.00	Yes	0.430	0.253	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.10**
		U_{14} - U_{15}	1282.24	-----	1302	68	3204	-320	-818	-609	-1040	-627	0.631	0.368	1.00	Yes	0.446	0.242	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.95**
		U_{15} - U_{16}	1418.30	-----	42	565	-3	-177	-914	-679	-304	475	0.857	0.141	1.00	Yes	0.610	0.098	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		U_{16} - U_{17}	1148.67	-----	593	432	881	-601	-319	-74	309	211	0.846	0.144	1.00	Yes	0.563	0.095	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.94**
		U_{17} - U_{18}	798.95	-----	417	389	605	-575	0	201	55	628	0.802	0.195	1.00	Yes	0.534	0.128	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.74**
		U_{18} - U_{19}	821.73	-523.94	528	426	394	-724	60	113	352	276	0.825	0.174	1.00	Yes	0.541	0.111	0.66	Yes	0.623	0.184	0.81	Yes	0.619	0.123	0.75	Yes	1.00	**3.38**
		U_{19} - U_{20}	611.55	-778.55	388	332	-126	-535	1	-61	128	418	0.574	0.142	0.72	Yes	0.380	0.093	0.48	Yes	0.864	0.128	1.00	Yes	0.859	0.086	0.95	Yes	1.00	**2.81**
		U_{20} - U_{21}	484.28	-946.25	216	209	-235	-567	-83	-73	290	168	0.376	0.114	0.49	Yes	0.263	0.074	0.34	Yes	0.870	0.121	1.00	Yes	0.864	0.082	0.95	Yes	1.00	**2.51**
		U_{21} - U_{22}	311.50	-833.92	74	153	-508	-1121	-28	30	184	340	0.242	0.199	0.45	Yes	0.171	0.134	0.31	Yes	0.767	0.228	1.00	Yes	0.761	0.162	0.93	Yes	1.00	**1.86**
		U_{22} - U_{23}	313.35	-837.36	163	56	-1108	-506	-3	-9	406	83	0.243	0.205	0.45	Yes	0.172	0.138	0.32	Yes	0.770	0.226	1.00	Yes	0.764	0.161	0.93	Yes	1.00	**1.86**
		U_{23} - U_{24}	985.30	-894.78	433	421	-507	-744	-225	-27	685	-810	0.764	0.196	0.97	Yes	0.535	0.131	0.67	Yes	0.823	0.177	1.00	Yes	0.817	0.108	0.93	Yes	1.00	**4.82**
		U_{24} - U_{25}	815.18	-803.28	451	424	-670	-238	-211	1	353	-159	0.764	0.155	0.92	Yes	0.507	0.102	0.61	Yes	0.892	0.107	1.00	Yes	0.886	0.107	1.00	Yes	1.00	**3.85**
		U_{25} - U_{26}	869.15	-136.09	444	477	-169	56	-274	2	161	-256	0.872	0.121	1.00	Yes	0.572	0.077	0.65	Yes	0.162	0.125	0.29	Yes	0.161	0.081	0.25	Yes	1.00	**3.81**
		U_{26} - U_{27}	490.29	-211.65	-2429	1567	-534	99	608	-363	-291	-275	0.492	0.501	1.00	Yes	0.328	0.332	0.66	Yes	0.251	0.259	0.52	Yes	0.250	0.412	0.67	Yes	1.00	**8.87**
		U_{27} - U_{28}	1061.67	-----	-458	1274	-139	253	147	-543	-30	-279	0.782	0.217	1.00	Yes	0.521	0.143	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.85**
		U_{28} - U_{29}	1498.89	-----	-299	121	-383	-88	107	-552	144	-371	0.906	0.090	1.00	Yes	0.645	0.062	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.02**
		U_{29} - U_{30}	1302.37	-----	-401	3313	-19	1054	-501	-743	-310	-207	0.640	0.357	1.00	Yes	0.453	0.235	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.23**
		U_{30} - U_{31}	1284.88	-----	1090	39	3219	-628	-610	-338	-892	-444	0.632	0.359	1.00	Yes	0.447	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.23**
		U_{31} - U_{32}	1277.73	-----	35	508	-77	-273	-525	-274	-3	730	0.863	0.134	1.00	Yes	0.615	0.093	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.78**
		U_{32} - U_{33}	998.24	-----	520	339	804	-840	-110	-22	182	279	0.843	0.152	1.00	Yes	0.566	0.102	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		U_{33} - U_{34}	886.15	-724.21	482	375	-71	-920	-14	211	415	981	0.749	0.249	1.00	Yes	0.509	0.165	0.68	Yes	0.724	0.219	0.95	Yes	0.720	0.130	0.85	Yes	1.00	**3.53**
		U_{34} - U_{35}	448.76	-942.14	412	123	-62	-1079	179	149	590	462	0.329	0.195	0.53	Yes	0.223	0.132	0.36	Yes	0.818	0.177	1.00	Yes	0.813	0.131	0.95	Yes	1.00	**2.51**
		U_{35} - U_{36}	209.38	-1246.81	212	-104	-313	-906	96	86	360	438	0.121	0.133	0.26	Yes	0.085	0.088	0.18	Yes	0.852	0.146	1.00	Yes	0.846	0.096	0.95	Yes	1.00	**2.26**
		U_{36} - U_{37}	2.22	-1387.39	-38	54	-749	-1577	84	-3	409	270	0.001	0.169	0.18	Yes	0.001	0.115	0.12	Yes	0.796	0.203	1.00	Yes	0.790	0.140	0.94	Yes	1.00	**2.00**
		U_{37} - U_{38}	-----	-1382.03	143	-127	-1459	-954	41	23	324	232	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.204	1.00	Yes	0.787	0.130	0.92	Yes	1.00	**1.98**
		U_{38} - U_{39}	-----	-1635.46	186	-265	-728	-1264	129	-26	540	-68	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.148	1.00	Yes	0.840	0.105	0.95	Yes	1.00	**2.31**
		U_{39} - U_{40}	-----	-1560.19	-214	-299	-1520	-941	60	10	440	92	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.185	1.00	Yes	0.801	0.126	0.93	Yes	1.00	**2.32**
		U_{40} - U_{41}	-----	-1462.42	-216	-306	-1169	-800	58	-76	394	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.839	0.154	1.00	Yes	0.833	0.104	0.94	Yes	1.00	**2.51**
		U_{41} - U_{42}	-----	-1220.75	-1139	-3	-100	-158	391	-132	-72	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.119	1.00	Yes	0.866	0.116	0.99	Yes	1.00	**2.85**
		U_{42} - U_{43}	-----	-815.90	-467	-30	-950	-318	-250	-270	493	-255	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.207	1.00	Yes	0.787	0.144	0.94	Yes	1.00	**4.72**
		U_{43} - U_{44}	-----	-532.82	-1737	2175	58	-317	151	-1061	-55	73	-----	-----	-----	-----	-----	-----	-----	-----	0.633	0.240	0.88	Yes	0.629	0.369	1.00	Yes	1.00	**4.84**
	Structure 3	U_0 - U_1	-----	-684.26	-24	-141	-211	-1109	-4	-39	-158	-226	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.219	1.00	Yes	0.770	0.223	1.00	Yes	1.00	**7.22**
		U_1 - U_2	-----	-755.71	-39	-133	141	-665	-64	-234	-69	-218	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.138	1.00	Yes	0.850	0.134	0.99	Yes	1.00	**2.95**
		U_2 - U_3	-----	-1097.87	-79	-157	36	-659	-52	342	-121	184	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.122	1.00	Yes	0.859	0.107	0.97	Yes	1.00	**2.72**
		U_3 - U_4	-----	-1447.45	-166	-290	-389	-930	351	552	227	259	-----	-----	-----	-----	-----	-----	-----	-----	0.839	0.160	1.00	Yes	0.830	0.103	0.94	Yes	1.00	**2.70**
		U_4 - U_5	-----	-1485.84	-400	-52	-646	-548	690	232	342	169	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.135	1.00	Yes	0.852	0.071	0.93	Yes	1.00	**2.26**
		U_5 - U_6	-----	-1364.20	-188	-282	-580	-1399	142	-148	260	313	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.204	1.00	Yes	0.782	0.154	0.94	Yes	1.00	**1.81**
		U_6 - U_7	-----	-1380.83	-380	-107	-1479	-456	-89	-186	400	58	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.198	1.00	Yes	0.792	0.163	0.96	Yes	1.00	**1.85**
		U_7 - U_8	2.53	-1242.00	-107	165	-590	-528	-105	-230	609	-1002	0.001	0.161	0.17	Yes	0.001	0.106	0.11	Yes	0.840	0.154	1.00	Yes	0.830	0.081	0.92	Yes	1.00	**4.52**
		U_8 - U_9	151.18	-908.83	7	347	-835	-50	-103	-176	245	-330	0.121	0.178	0.30	Yes	0.082	0.120	0.21	Yes	0.860	0.139	1.00	Yes	0.853	0.139	1.00	Yes	1.00	**3.94**
		U_9 - U_{10}	-----	-535.87	-1391	857	-200	81	453	-377	-39	-88	-----	-----	-----	-----	-----	-----	-----	-----	0.690	0.218	0.91	Yes	0.684	0.312	1.00	Yes	1.00	**6.72**
		U_{10} - U_{11}	686.00	-----	-388	683	14	60	234	-606	-34	-131	0.744	0.250	1.00	Yes	0.504	0.168	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.31**
		U_{11} - U_{12}	813.51	-----	-540	1568	-155	559	-211	-520	-217	-189	0.667	0.327	1.00	Yes	0.456	0.222	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.31**
		U_{12} - U_{13}	828.48	-----	703	202	2252	-934	-783	-462	-643	-258	0.574	0.421	1.00	Yes	0.400	0.287	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.33**
		U_{13} - U_{14}	881.88	-----	226	463	69	-97	-410	-213	-117	292	0.843	0.155	1.00	Yes	0.589	0.107	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.11**
		U_{14} - U_{15}	743.13	-242.69	485	359	307	-355	-144	-37	154	36	0.852	0.141	1.00	Yes	0.575	0.092	0.67	Yes	0.330	0.154	0.49	Yes	0.327	0.115	0.45	Yes	1.00	**3.30**
		U_{15} - U_{16}	506.50	-563.97	396	279	-144	-834	-70	136	91	458	0.581	0.276	0.86	Yes	0.398	0.189	0.59	Yes	0.767	0.228	1.00	Yes	0.761	0.198	0.96	Yes	1.00	**2.90**
		U_{16} - U_{17}	504.39	-571.59	465	176	-617	-407	59	81	445	215	0.578	0.222	0.81	Yes	0.397	0.152	0.55	Yes	0.778	0.215	1.00	Yes	0.771	0.147	0.92	Yes	1.00	**2.91**
		U_{17} - U_{18}	303.00	-617.38	415	-37	-290	-480	-96	65	316	-19	0.347	0.168	0.52	Yes	0.234	0.110	0.35	Yes	0.840	0.154	1.00	Yes	0.833	0.114	0.95	Yes	1.00	**2.75**
		U_{18} - U_{19}	146.26	-546.64	232	-28	-633	-334	-97	40	515	-17	0.168	0.238	0.41	Yes	0.115	0.162	0.28	Yes	0.744	0.256	1.00	Yes	0.737	0.151	0.89	Yes	1.00	**2.68**
		U_{19} - U_{20}	88.44	-523.12	-1086	1211	295	-456	413	-757	-214	238	0.101	0.416	0.52	Yes	0.070	0.284	0.36	Yes	0.712	0.160	0.88	Yes	0.705	0.288	1.00	Yes	1.00	**4.90**

Moment (End) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in	-----	-----	-----	-----	-----	-----	-----	-----										
North Truss - Lower Chord	Structure 1	L_0 - L_1			-----	-169.28	-683	531	2056	-2309	-79	-291	-62	-228	-----	-----	-----	-----	-----	-----	-----	-----	0.307	0.528	0.84	Yes	0.305	0.693	1.00	Yes	1.00	**27.96**
		L_1 - L_2			481.96	-68.87	137	66	160	-737	-24	-64	-154	-85	0.738	0.254	1.00	Yes	0.450	0.171	0.63	Yes	0.125	0.129	0.26	Yes	0.124	0.221	0.35	Yes	1.00	**3.72**
		L_2 - L_3			723.28	-153.70	26	120	-469	-620	-41	48	-98	-53	0.832	0.166	1.00	Yes	0.481	0.099	0.59	Yes	0.210	0.185	0.40	Yes	0.208	0.150	0.36	Yes	1.00	**3.38**
		L_3 - L_4			696.28	-237.99	114	343	-284	-753	87	73	-70	-75	0.801	0.196	1.00	Yes	0.476	0.127	0.61	Yes	0.325	0.182	0.51	Yes	0.322	0.182	0.51	Yes	1.00	**2.73**
		L_4 - L_5			291.09	-334.79	-1428	1211	-586	282	-542	426	-862	1342	0.377	0.617	1.00	Yes	0.226	0.395	0.63	Yes	0.515	0.276	0.80	Yes	0.510	0.378	0.89	Yes	1.00	**6.36**
		L_5 - L_6			-----	-700.19	-80	673	-120	197	226	131	480	120	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.178	1.00	Yes	0.808	0.149	0.96	Yes	1.00	**2.63**
		L_6 - L_7			-----	-1130.83	-522	430	219	107	-63	170	125	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.921	0.038	0.96	Yes	0.910	0.082	1.00	Yes	1.00	**3.22**
		L_7 - L_8			-----	-1268.13	-21	1355	2	597	41	-1	-64	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.181	1.00	Yes	0.803	0.179	0.99	Yes	1.00	**1.73**
		L_8 - L_9			-----	-1267.00	740	-19	1146	-76	-495	-352	-24	-238	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.185	1.00	Yes	0.802	0.152	0.96	Yes	1.00	**2.84**
		L_9 - L_{10}			-----	-1091.22	4	140	721	-502	260	228	-183	-270	-----	-----	-----	-----	-----	-----	-----	-----	0.888	0.076	0.97	Yes	0.878	0.113	1.00	Yes	1.00	**4.73**
		L_{10} - L_{11}			-----	-562.20	536	1	401	-507	98	7	95	-129	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.098	0.97	Yes	0.857	0.142	1.00	Yes	1.00	**3.21**
		L_{11} - L_{12}			556.49	-388.29	565	-112	488	-930	94	-35	19	-146	0.721	0.272	1.00	Yes	0.432	0.179	0.62	Yes	0.597	0.100	0.70	Yes	0.592	0.246	0.84	Yes	1.00	**4.29**
		L_{12} - L_{13}			1134.67	-65.45	220	-45	-168	-506	24	28	62	13	0.895	0.097	1.00	Yes	0.573	0.058	0.64	Yes	0.061	0.089	0.16	Yes	0.061	0.090	0.16	Yes	1.00	**3.97**
		L_{13} - L_{14}			1287.67	-----	353	-444	306	-1633	10	-2	-2	-141	0.757	0.237	1.00	Yes	0.491	0.145	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.59**
		L_{14} - L_{15}			1535.88	-----	-421	-15	-1807	-296	-94	-94	-322	30	0.750	0.240	1.00	Yes	0.488	0.146	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.75**
		L_{15} - L_{16}			1710.23	-----	-205	-352	-987	-1102	-129	-53	18	-378	0.836	0.159	1.00	Yes	0.536	0.094	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.14**
		L_{16} - L_{17}			1158.07	-----	-1358	195	-422	51	-685	95	-62	-49	0.732	0.260	1.00	Yes	0.475	0.161	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.33**
		L_{17} - L_{18}			858.20	-----	-915	389	-401	-99	-275	-558	251	-33	0.747	0.248	1.00	Yes	0.478	0.150	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.35**
		L_{18} - L_{19}			277.57	-201.98	-1278	936	-194	227	-905	381	29	-34	0.425	0.571	1.00	Yes	0.287	0.364	0.66	Yes	0.367	0.207	0.58	Yes	0.364	0.383	0.75	Yes	1.00	**7.10**
		L_{19} - L_{20}			70.09	-464.55	-531	259	-95	-28	145	33	-28	-6	0.107	0.190	0.30	Yes	0.065	0.127	0.20	Yes	0.844	0.117	0.97	Yes	0.836	0.159	1.00	Yes	1.00	**3.22**
	Structure 2	L_0 - L_1			9.20	-279.98	-189	177	1217	-2920	-45	-157	-21	-73	0.011	0.620	0.64	Yes	0.007	0.401	0.41	Yes	0.403	0.400	0.81	Yes	0.400	0.594	1.00	Yes	1.00	**14.82**
		L_1 - L_2			587.53	-----	129	-136	549	-1331	-62	-9	-94	-58	0.714	0.286	1.00	Yes	0.424	0.185	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.62**
		L_2 - L_3			1055.07	-----	-72	-100	140	-1067	61	83	-16	-26	0.832	0.163	1.00	Yes	0.545	0.096	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.61**
		L_3 - L_4			1428.67	-----	27	-378	-11	-1303	-21	39	-43	-19	0.839	0.156	1.00	Yes	0.565	0.096	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.71**
		L_4 - L_5			1837.40	-----	-387	-187	-827	-1314	90	223	-68	-141	0.857	0.139	1.00	Yes	0.567	0.083	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.58**
		L_5 - L_6			1927.11	-----	-125	-299	-752	-1760	127	-17	-115	-129	0.827	0.164	1.00	Yes	0.555	0.100	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.07**
		L_6 - L_7			1936.51	-----	-378	-27	-1694	-1847	-175	42	-95	197	0.820	0.175	1.00	Yes	0.545	0.102	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.78**
		L_7 - L_8			1388.69	-54.40	-186	342	-1563	-495	-128	7	-171	-296	0.796	0.197	1.00	Yes	0.523	0.116	0.64	Yes	0.037	0.190	0.23	Yes	0.037	0.173	0.21	Yes	1.00	**2.24**
		L_8 - L_9			1045.65	-652.99	100	703	-1044	100	-6	24	-341	1279	0.731	0.261	1.00	Yes	0.493	0.168	0.67	Yes	0.541	0.140	0.69	Yes	0.537	0.141	0.68	Yes	1.00	**3.86**
		L_9 - L_{10}			622.92	-817.91	-34	866	-863	10	40	113	442	-386	0.556	0.192	0.75	Yes	0.324	0.118	0.45	Yes	0.865	0.099	0.97	Yes	0.859	0.139	1.00	Yes	1.00	**3.52**
		L_{10} - L_{11}			-----	-750.05	-568	633	-223	369	-236	173	-38	20	-----	-----	-----	-----	-----	-----	-----	-----	0.887	0.056	0.95	Yes	0.881	0.111	1.00	Yes	1.00	**3.36**
		L_{11} - L_{12}			-----	-1013.82	-522	1171	-312	438	47	12	132	282	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.118	0.96	Yes	0.831	0.159	1.00	Yes	1.00	**2.16**
		L_{12} - L_{13}			-----	-1510.26	-400	-71	-384	-603	176	-94	70	107	-----	-----	-----	-----	-----	-----	-----	-----	0.911	0.081	1.00	Yes	0.903	0.060	0.97	Yes	1.00	**2.31**
		L_{13} - L_{14}			-----	-1516.02	-848	2685	-348	1243	-84	-284	-194	-335	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.180	0.95	Yes	0.763	0.234	1.00	Yes	1.00	**1.65**
		L_{14} - L_{15}			-----	-1527.85	1383	-418	2637	-947	-393	-264	-342	-186	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.174	0.96	Yes	0.769	0.230	1.00	Yes	1.00	**1.66**
		L_{15} - L_{16}			-----	-1491.20	-803	490	-191	-269	-655	-260	-671	-548	-----	-----	-----	-----	-----	-----	-----	-----	0.899	0.092	1.00	Yes	0.892	0.080	0.98	Yes	1.00	**6.72**
		L_{16} - L_{17}			-----	-1136.75	1256	197	1387	-474	509	269	-145	-330	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.158	1.00	Yes	0.828	0.171	1.00	Yes	1.00	**3.81**
		L_{17} - L_{18}			-----	-850.41	418	327	632	-405	125	-39	-97	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.899	0.076	0.98	Yes	0.893	0.101	1.00	Yes	1.00	**2.79**
		L_{18} - L_{19}			-----	-652.96	642	197	510	-424	-8	32	134	61	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.120	1.00	Yes	0.870	0.124	1.00	Yes	1.00	**2.59**
		L_{19} - L_{20}			248.92	-657.22	540	340	322	-631	40	-23	155	-90	0.282	0.145	0.43	Yes	0.167	0.092	0.26	Yes	0.881	0.115	1.00	Yes	0.876	0.122	1.00	Yes	1.00	**3.30**
		L_{20} - L_{21}			990.96	-881.67	783	369	-258	-1123	-122	-116	-39	-33	0.790	0.177	0.97	Yes	0.518	0.105	0.63	Yes	0.833	0.129	0.97	Yes	0.827	0.164	1.00	Yes	1.00	**5.56**
		L_{21} - L_{22}			851.97	-433.10	301	244	-283	-1989	-83	-5	-36	-192	0.679	0.311	1.00	Yes	0.454	0.194	0.65	Yes	0.409	0.251	0.66	Yes	0.406	0.290	0.70	Yes	1.00	**3.13**
		L_{22} - L_{23}			854.56	-367.08	229	274	-1958	-400	36	-22	-248	188	0.681	0.313	1.00	Yes	0.456	0.196	0.66	Yes	0.347	0.252	0.60	Yes	0.344	0.286	0.64	Yes	1.00	**3.12**
		L_{23} - L_{24}			986.62	-822.48	392	657	-864	-871	50	138	718	-260	0.787	0.204	1.00	Yes	0.516	0.126	0.65	Yes	0.777	0.186	0.97	Yes	0.772	0.127	0.90	Yes	1.00	**6.04**
		L_{24} - L_{25}			228.10	-633.52	521	375	-764	-10	162	-73	-285	287	0.258	0.191	0.45	Yes	0.153	0.121	0.28	Yes	0.850	0.089	0.94	Yes	0.844	0.147	1.00	Yes	1.00	**4.85**
		L_{25} - L_{26}			191.35	-653.78	283	643	-346	49	81	210	147	-134	0.217	0.156	0.38	Yes	0.125	0.093	0.22	Yes	0.877	0.117	1.00	Yes	0.871	0.124	1.00	Yes	1.00	**4.47**
		L_{26} - L_{27}			-----	-848.83	-455	658	-40	197	-209	133	30	22	-----	-----	-----	-----	-----	-----	-----	-----	0.897	0.058	0.96	Yes	0.891	0.105	1.00	Yes	1.00	**2.42**
		L_{27} - L_{28}			-----	-1162.50	-312	1226	-138	393	187	109	193	286	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.130	0.99	Yes	0.847	0.151	1.00	Yes	1.00	**2.20**
		L_{28} - L_{29}			-----	-1532.34	-118	-126	-120	-673	265	-65	-20	-25	-----	-----	-----	-----	-----	-----	-----	-----	0.924	0.072	1.00	Yes	0.917	0.067	0.99	Yes	1.00	**2.26**
		L_{29} - L_{30}			-----	-1537.11	-892	2576	-355	934	-72	-188	-91	-179	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.158	0.94	Yes	0.773	0.225	1.00	Yes	1.00	**1.82**
		L_{30} - L_{31}			-----	-1469.47	963	-349	2911	-1027	-214	-155	-203	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.180	0.93	Yes	0.739	0.254	1.00	Yes	1.00	**2.18**
		L_{31} - L_{32}			-----	-1498.23	-451	612	198	-820	-598	37	-543	58	-----	-----	-----	-----	-----	-----	-----	-----	0.904	0.094	1.00	Yes	0.896	0.082	0.98	Yes	1.00	**7.33**
		L_{32} - L_{33}			-----	-1040.54	1036	162	840	-779	-176	-125	397	-9	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.129	0.99	Yes	0.853	0.141	1.00	Yes	1.00	**3.98**
		L_{33} - L_{34}			41.08	-724.36	404	210	431	-810	-30	-83	112	-32	0.041	0.157	0.20	Yes	0.024	0.099	0.13	Yes	0.857	0.067	0.93	Yes	0.851	0.142	1.00	Yes	1.00	**3.22**
		L_{34} - L_{35}			696.33	-759.38	745	99	190	-1210	-19	50	246	174	0.622	0.223	0.85	Yes	0.362	0.139	0.51	Yes	0.803	0.153	0.96	Yes	0.797	0.194	1.00	Yes	1.00	**4.17**
		L_{35} - L_{36}			1185.73	-453.33	480	93	129	-1101	89	-64	221	-33	0.829	0.169	1.00	Yes	0.559	0.106	0.67	Yes	0.376	0.114	0.49	Yes	0.373	0.149	0.53	Yes	1.00	**3.66**
		L_{36} - L_{37}			1413.14	-150.25	336	67	-440	-1602	-100	-4	-92	107	0.810	0.186	1.00	Yes	0.532	0.108	0.65	Yes	0.102	0.175	0.28	Yes	0.101	0.177	0.28	Yes	1.00	**2.90**
		L_{37} - L_{38}			1911.10	-----	28	-292	-1755	-1876	-27	-6	-93	-336	0.809	0.186	1.00	Yes	0.538	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.10**
		L_{38} - L_{39}			1876.79	-----	-167	-140	-1820	-1011	-49	1	-115	458	0.805	0.190	1.00	Yes	0.540	0.117	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		L_{39} - L_{40}			1768.19	-----	-147	-288	-1420	-1028	-43	-32	23	-536	0.824	0.170	1.00	Yes	0.546	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.70**
		L_{40} - L_{41}			1319.61	-----	-1163	39	-1522	-294	-502	219	-533	214	0.775	0.221	1.00	Yes	0.522	0.138	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.89**
		L_{41} - L_{42}			1015.87	-----	-1223	222	-44	-194	-112	-192	-36	-67	0.801	0.197	1.00	Yes	0.525	0.117	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.29**
		L_{42} - L_{43}			394.83	-----	-1957	646	-56	-114	-555	732	-124	-153	0.480	0.518	1.00	Yes	0.285	0.330	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.03**
		L_{43} - L_{44}			219.79	-474.80	-1571	542	-60	-17	645	188	-155	-45	0.267	0.426	0.70	Yes	0.159	0.271	0.43	Yes	0.683	0.269	0.96	Yes	0.678	0.320	1.00	Yes	1.00	**6.89**
	Structure 3	L_0 - L_1			140.50	-407.83	8	-103	601	-878	-7	-34	34	153	0.215	0.295	0.52	Yes	0.131	0.199	0.34	Yes	0.741	0.150	0.90	Yes	0.734	0.264	1.00	Yes	1.00	**5.94**
		L_1 - L_2			288.88	-----	78	-122	1030	-1712	-65	4	111	174	0.442	0.550	1.00	Yes	0.299	0.341	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.92**
		L_2 - L_3			913.17	-----	-68	-138	266	-964	33	27	120	117	0.795	0.201	1.00	Yes	0.509	0.120	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.20**
		L_3 - L_4			1297.81	-----	58	-345	118	-1184	29	51	40	5	0.821	0.178	1.00	Yes	0.532	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.87**
		L_4 - L_5			1774.86	-----	-382	-158	-916	-962	116	232	-114	-177	0.867	0.132	1.00	Yes	0.557	0.078	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.72**
		L_5 - L_6			1547.71	-----	-82	-347	-294	-1881	142	78	-95	-137	0.756	0.237	1.00	Yes	0.491	0.143	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.94**
		L_6 - L_7			1312.89	-----	-343	340	-1153	-21	-189	26	-701	805	0.772	0.226	1.00	Yes	0.500	0.140	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.48**
		L_7 - L_8			1120.99	-----	-66	152	-535	-312	-24	44	170	4	0.885	0.115	1.00	Yes	0.566	0.069	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.35**
		L_8 - L_9			233.07	-----	-1882	1322	-261	195	-789	1097	-47	45	0.302	0.690	1.00	Yes	0.181	0.446	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.90**
		L_9 - L_{10}			60.25	-540.72	-488	635	-315	128	163	128	249	115	0.078	0.212	0.29	Yes	0.045	0.127	0.18	Yes	0.831	0.090	0.93	Yes	0.824	0.168	1.00	Yes	1.00	**3.44**
		L_{10} - L_{11}			-----	-1081.52	-784	716	196	72	-212	85	148	-211	-----	-----	-----	-----	-----	-----	-----	-----	0.880	0.050	0.93	Yes	0.871	0.123	1.00	Yes	1.00	**5.25**
		L_{11} - L_{12}			-----	-1259.13	-73	1247	-40	474	-234	-402	-169	-208	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.186	1.00	Yes	0.797	0.165	0.97	Yes	1.00	**1.89**
		L_{12} - L_{13}			-----	-1237.03	589	-11	1300	-60	-459	-354	-450	-278	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.201	1.00	Yes	0.783	0.172	0.96	Yes	1.00	**1.91**
		L_{13} - L_{14}			-----	-1162.31	-133	295	302	-240	-127	199	-285	-102	-----	-----	-----	-----	-----	-----	-----	-----	0.946	0.050	1.00	Yes	0.936	0.047	0.99	Yes	1.00	**3.13**
		L_{14} - L_{15}			-----	-746.58	569	169	330	-156	142	-29	99	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.124	1.00	Yes	0.861	0.126	0.99	Yes	1.00	**2.08**
		L_{15} - L_{16}			75.31	-550.76	420	197	332	-509	-4	-46	-84	-109	0.098	0.154	0.26	Yes	0.059	0.101	0.16	Yes	0.847	0.146	1.00	Yes	0.839	0.135	0.98	Yes	1.00	**1.88**
		L_{16} - L_{17}			692.10	-394.11	471	74	-696	-419	113	-69	23	179	0.796	0.197	1.00	Yes	0.473	0.127	0.60	Yes	0.538	0.148	0.69	Yes	0.533	0.168	0.71	Yes	1.00	**3.07**
		L_{17} - L_{18}			709.71	-269.41	205	52	-622	-595	-3	18	174	-89	0.816	0.178	1.00	Yes	0.472	0.107	0.58	Yes	0.368	0.204	0.58	Yes	0.365	0.150	0.52	Yes	1.00	**3.51**
		L_{18} - L_{19}			424.28	-103.60	-807	85	169	-40	-279	462	67	-173	0.649	0.341	1.00	Yes	0.396	0.226	0.63	Yes	0.188	0.181	0.37	Yes	0.187	0.242	0.43	Yes	1.00	**3.78**
		L_{19} - L_{20}			44.96	-296.71	-1274	744	202	-323	1128	307	22	6	0.069	0.624	0.70	Yes	0.041	0.376	0.42	Yes	0.539	0.452	1.00	Yes	0.534	0.382	0.92	Yes	1.00	**14.33**

Moment (End) AB Inventory

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Inventory Loads - HS20 Lane																													
					Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression											
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-311.60	-196	260	-38	67	53	17	-76	-24	-----	-----	-----	-----	-----	-----	-----	-----	0.696	0.144	0.84	Yes	0.659	0.332	1.00	Yes	1.00	**1.90**
		$U_1 - L_1$	60.21	-335.54	-200	222	53	-42	-81	6	-13	-26	0.108	0.308	0.42	Yes	0.060	0.169	0.23	Yes	0.733	0.101	0.84	Yes	0.710	0.284	1.00	Yes	1.00	**3.12**
		$U_2 - L_2$	158.12	-304.55	-218	271	135	-152	59	62	141	42	0.284	0.387	0.68	Yes	0.156	0.213	0.37	Yes	0.666	0.141	0.81	Yes	0.644	0.347	1.00	Yes	1.00	**4.62**
		$U_3 - L_3$	285.48	-263.84	-255	297	224	-263	202	141	342	102	0.513	0.479	1.00	Yes	0.282	0.263	0.55	Yes	0.578	0.182	0.76	Yes	0.558	0.380	0.94	Yes	1.00	**7.34**
		$U_4 - L_4$	-----	-353.59	65	-64	193	-195	-5	-22	476	168	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.183	0.97	Yes	0.748	0.249	1.00	Yes	1.00	**3.03**
		$U_5 - L_5$	-----	-419.09	77	-90	239	-264	-201	-62	97	62	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.128	0.89	Yes	0.723	0.268	1.00	Yes	1.00	**1.95**
		$U_6 - L_6$	-----	-494.11	86	-79	233	-257	-225	-36	927	232	-----	-----	-----	-----	-----	-----	-----	-----	0.748	0.244	1.00	Yes	0.709	0.225	0.94	Yes	1.00	**1.95**
		$U_7 - L_7$	-----	-430.97	133	-150	305	-331	-147	39	206	70	-----	-----	-----	-----	-----	-----	-----	-----	0.720	0.139	0.86	Yes	0.665	0.326	1.00	Yes	1.00	**1.52**
		$U_8 - L_8$	-----	-1198.89	-338	395	405	-498	-972	-291	1092	333	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.130	1.00	Yes	0.831	0.093	0.93	Yes	1.00	**3.68**
		$U_9 - L_9$	-----	-652.02	-413	474	-175	207	-229	-174	-244	-97	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.128	0.91	Yes	0.736	0.263	1.00	Yes	1.00	**2.11**
		$U_{10} - L_{10}$	-----	-757.41	-352	366	-127	103	-830	-682	-603	-292	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.212	1.00	Yes	0.747	0.190	0.94	Yes	1.00	**2.85**
		$U_{11} - L_{11}$	-----	-661.27	-385	487	-146	197	-376	-370	-545	-375	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.170	0.97	Yes	0.770	0.226	1.00	Yes	1.00	**2.38**
		$U_{12} - L_{12}$	-----	-531.65	-310	315	-126	121	-107	-189	-330	-237	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.150	0.92	Yes	0.729	0.269	1.00	Yes	1.00	**2.19**
		$U_{13} - L_{13}$	-----	-366.75	-232	259	-79	99	-1	-6	-44	4	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.098	0.84	Yes	0.703	0.296	1.00	Yes	1.00	**1.75**
		$U_{14} - L_{14}$	-----	-366.97	-137	158	-44	52	449	67	-36	-16	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.175	1.00	Yes	0.776	0.202	0.98	Yes	1.00	**3.47**
		$U_{15} - L_{15}$	88.86	-292.65	-63	60	269	-291	-66	-48	282	201	0.160	0.453	0.62	Yes	0.088	0.249	0.34	Yes	0.656	0.217	0.88	Yes	0.619	0.371	1.00	Yes	1.00	**4.30**
		$U_{16} - L_{16}$	-----	-306.86	23	-27	214	-227	-80	-100	1097	-53	-----	-----	-----	-----	-----	-----	-----	-----	0.692	0.306	1.00	Yes	0.649	0.290	0.94	Yes	1.00	**2.26**
		$U_{17} - L_{17}$	-----	-432.51	57	-71	219	-240	-120	-109	197	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.109	0.92	Yes	0.746	0.244	1.00	Yes	1.00	**1.82**
		$U_{18} - L_{18}$	-----	-534.76	137	-144	418	-437	-130	-114	213	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.090	0.88	Yes	0.744	0.247	1.00	Yes	1.00	**2.00**
		$U_{19} - L_{19}$	-----	-632.17	163	-162	556	-533	-111	-41	252	-56	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.115	0.91	Yes	0.736	0.258	1.00	Yes	1.00	**2.30**
		$U_{20} - L_{20}$	-----	-583.77	158	-257	280	-474	25	3	596	78	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.227	1.00	Yes	0.679	0.220	0.90	Yes	1.00	**1.60**
	Structure 2	$U_0 - L_0$	-----	-692.06	-486	597	-143	187	36	6	-78	-13	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.117	0.95	Yes	0.742	0.253	1.00	Yes	1.00	**2.44**
		$U_1 - L_1$	-----	-725.03	-478	510	-94	102	-100	24	-120	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.076	0.91	Yes	0.777	0.216	1.00	Yes	1.00	**2.86**
		$U_2 - L_2$	-----	-593.03	-458	475	-82	92	-8	0	-95	-45	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.079	0.88	Yes	0.756	0.243	1.00	Yes	1.00	**2.51**
		$U_3 - L_3$	-----	-495.73	-223	241	-42	49	-43	-19	100	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.079	0.93	Yes	0.777	0.220	1.00	Yes	1.00	**2.17**
		$U_4 - L_4$	0.50	-344.28	-205	212	5	4	-85	-9	285	86	0.001	0.353	0.36	Yes	0.000	0.194	0.20	Yes	0.781	0.163	0.95	Yes	0.728	0.271	1.00	Yes	1.00	**2.31**
		$U_5 - L_5$	100.56	-332.66	-194	225	76	-71	-47	-34	314	189	0.181	0.378	0.56	Yes	0.099	0.208	0.31	Yes	0.751	0.210	0.97	Yes	0.704	0.288	1.00	Yes	1.00	**3.21**
		$U_6 - L_6$	270.31	-282.82	-299	312	172	-192	164	-38	362	253	0.486	0.504	1.00	Yes	0.267	0.277	0.55	Yes	0.636	0.245	0.89	Yes	0.598	0.399	1.00	Yes	1.00	**6.71**
		$U_7 - L_7$	-----	-267.53	52	-59	278	-322	37	6	999	199	-----	-----	-----	-----	-----	-----	-----	-----	0.604	0.390	1.00	Yes	0.566	0.411	0.98	Yes	1.00	**9.20**
		$U_8 - L_8$	-----	-455.27	115	-127	370	-387	-62	-112	125	-58	-----	-----	-----	-----	-----	-----	-----	-----	0.660	0.111	0.78	Yes	0.656	0.339	1.00	Yes	1.00	**2.72**
		$U_9 - L_9$	-----	-694.68	199	-199	547	-582	-105	-119	1375	169	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.200	0.98	Yes	0.744	0.247	1.00	Yes	1.00	**2.81**
		$U_{10} - L_{10}$	-----	-786.16	183	-183	547	-582	-134	-69	336	-171	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.100	0.88	Yes	0.735	0.257	1.00	Yes	1.00	**2.79**
		$U_{11} - L_{11}$	-----	-812.15	185	-183	510	-531	-162	-42	140	-174	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.098	0.92	Yes	0.759	0.234	1.00	Yes	1.00	**2.40**
		$U_{12} - L_{12}$	-----	-884.46	145	-115	518	-531	-127	32	235	-44	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.106	0.96	Yes	0.767	0.228	1.00	Yes	1.00	**2.45**
		$U_{13} - L_{13}$	-----	-680.23	215	-219	547	-541	-137	8	795	100	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.241	1.00	Yes	0.656	0.262	0.92	Yes	1.00	**1.86**
		$U_{14} - L_{14}$	-----	-1112.47	-309	285	658	-629	-641	-23	1043	658	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.184	1.00	Yes	0.738	0.116	0.86	Yes	1.00	**3.25**
		$U_{15} - L_{15}$	-----	-696.56	-666	661	-77	89	-34	60	-314	34	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.162	0.94	Yes	0.672	0.319	1.00	Yes	1.00	**3.33**
		$U_{16} - L_{16}$	-----	-701.59	-464	413	-61	33	-602	-241	-820	-248	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.183	1.00	Yes	0.752	0.197	0.95	Yes	1.00	**2.39**
		$U_{17} - L_{17}$	-----	-638.25	-541	531	-118	108	-298	-302	-482	-306	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.155	0.95	Yes	0.743	0.251	1.00	Yes	1.00	**2.13**
		$U_{18} - L_{18}$	-----	-603.90	-411	436	-113	100	68	-203	-188	-187	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.086	0.90	Yes	0.770	0.223	1.00	Yes	1.00	**1.92**
		$U_{19} - L_{19}$	-----	-477.85	-286	289	-73	71	-123	-150	-176	-100	-----	-----	-----	-----	-----	-----	-----	-----	0.719	0.105	0.83	Yes	0.714	0.278	1.00	Yes	1.00	**2.34**
		$U_{20} - L_{20}$	-----	-385.71	-216	228	-42	40	-20	-99	-202	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.131	0.93	Yes	0.739	0.260	1.00	Yes	1.00	**2.44**
		$U_{21} - L_{21}$	-----	-315.55	-239	256	-29	30	44	3	-84	-16	-----	-----	-----	-----	-----	-----	-----	-----	0.713	0.115	0.83	Yes	0.668	0.328	1.00	Yes	1.00	**2.75**
		$U_{22} - L_{22}$	-----	-286.46	-170	199	130	-146	947	268	1050	299	-----	-----	-----	-----	-----	-----	-----	-----	0.645	0.355	1.00	Yes	0.606	0.254	0.87	Yes	1.00	**10.43**
		$U_{23} - L_{23}$	-----	-304.58	14	-15	261	-276	-100	-3	236	160	-----	-----	-----	-----	-----	-----	-----	-----	0.688	0.174	0.87	Yes	0.644	0.353	1.00	Yes	1.00	**3.42**
		$U_{24} - L_{24}$	-----	-339.14	43	-48	198	-214	-70	-8	997	94	-----	-----	-----	-----	-----	-----	-----	-----	0.695	0.299	1.00	Yes	0.650	0.245	0.90	Yes	1.00	**2.05**
		$U_{25} - L_{25}$	-----	-465.78	54	-49	306	-303	-91	9	378	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.701	0.119	0.82	Yes	0.696	0.295	1.00	Yes	1.00	**2.22**
		$U_{26} - L_{26}$	-----	-593.43	81	-75	429	-466	-136	27	447	22	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.122	0.92	Yes	0.756	0.239	1.00	Yes	1.00	**2.01**
		$U_{27} - L_{27}$	-----	-631.62	81	-78	563	-566	-186	53	251	157	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.094	0.88	Yes	0.735	0.263	1.00	Yes	1.00	**2.18**
		$U_{28} - L_{28}$	-----	-683.12	55	-34	476	-454	-230	74	1115	158	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.206	1.00	Yes	0.732	0.202	0.94	Yes	1.00	**2.12**
		$U_{29} - L_{29}$	-----	-695.07	101	-111	664	-653	-173	37	485	103	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.218	1.00	Yes	0.670	0.318	0.99	Yes	1.00	**2.81**
		$U_{30} - L_{30}$	-----	-1179.70	-731	664	741	-732	-1044	226	1439	118	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.136	1.00	Yes	0.782	0.131	0.92	Yes	1.00	**5.15**
		$U_{31} - L_{31}$	-----	-740.06	-580	576	-97	97	-49	35	-313	-20	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.162	0.99	Yes	0.714	0.278	1.00	Yes	1.00	**2.92**
		$U_{32} - L_{32}$	-----	-836.38	-433	392	-79	53	-475	-235	-684	-263	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.188	1.00	Yes	0.725	0.186	0.92	Yes	1.00	**2.58**
		$U_{33} - L_{33}$	-----	-847.14	-416	433	-119	105	-28	-273	-436	-348	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.146	1.00	Yes	0.792	0.191	0.99	Yes	1.00	**2.59**
		$U_{34} - L_{34}$	-----	-809.31	-506	542	-125	111	-221	-389	-321	-334	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.126	0.93	Yes	0.757	0.239	1.00	Yes	1.00	**3.41**
		$U_{35} - L_{35}$	-----	-707.58	-518	556	-148	144	-31	-102	-121	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.071	0.86	Yes	0.758	0.236	1.00	Yes	1.00	**3.14**
		$U_{36} - L_{36}$	-----	-473.58	-339	357	-82	92	105	35	89	71	-----	-----	-----	-----	-----	-----	-----	-----	0.687	0.101	0.79	Yes	0.682	0.313	1.00	Yes	1.00	**2.58**
		$U_{37} - L_{37}$	-----	-258.39	-295	348	-42	50	658	158	75	31	-----	-----	-----	-----	-----	-----	-----	-----	0.584	0.326	0.91	Yes	0.547	0.445	1.00	Yes	1.00	**8.84**
		$U_{38} - L_{38}$	300.50	-177.53	-230	254	258	-255	219	118	432	374	0.540	0.454	1.00	Yes	0.297	0.250	0.55	Yes	0.400	0.190	0.59	Yes	0.376	0.329	0.71	Yes	1.00	**8.38**
		$U_{39} - L_{39}$	93.65	-277.57	-81	79	158	-184	61	0	1242	51	0.168	0.595	0.77	Yes	0.093	0.327	0.42	Yes	0.627	0.364	1.00	Yes	0.587	0.235	0.83	Yes	1.00	**2.98**
		$U_{40} - L_{40}$	33.53	-339.64	-30	23	214	-218	14	-22	305	-81	0.060	0.366	0.43	Yes	0.033	0.202	0.24	Yes	0.770	0.122	0.90	Yes	0.719	0.278	1.00	Yes	1.00	**2.41**
		$U_{41} - L_{41}$	-----	-485.42	12	-16	239	-253	10	-20	204	-121	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.086	0.92	Yes	0.761	0.230	1.00	Yes	1.00	**2.22**
		$U_{42} - L_{42}$	-----	-586.20	35	-44	472	-487	11	-27	269	-168	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.077	0.87	Yes	0.747	0.249	1.00	Yes	1.00	**2.40**
		$U_{43} - L_{43}$	-----	-699.11	52	-67	576	-573	-58	-58	333	91	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.106	0.91	Yes	0.749	0.244	1.00	Yes	1.00	**2.65**
		$U_{44} - L_{44}$	-----	-638.40	109	-121	283	-457	-162	-27	940	159	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.233	1.00	Yes	0.684	0.194	0.88	Yes	1.00	**2.00**
	Structure 3	$U_0 - L_0$	-----	-631.39	-480	552	-135	181	227	30	-59	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.151	0.99	Yes	0.735	0.256	1.00	Yes	1.00	**2.71**
		$U_1 - L_1$	-----	-664.55	-447	471	-104	116	-20	127	-119	-3	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.081	0.91	Yes	0.773	0.219	1.00	Yes	1.00	**3.11**
		$U_2 - L_2$	-----	-543.27	-404	423	-102	108	21	26	-142	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.088	0.89	Yes	0.756	0.240	1.00	Yes	1.00	**2.61**
		$U_3 - L_3$	-----	-448.29	-197	219	-41	54	1	-21	50	-62	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.083	0.93	Yes	0.773	0.222	1.00	Yes	1.00	**2.23**
		$U_4 - L_4$	-----	-328.53	-218	231	-11	17	-40	14	232	50	-----	-----	-----	-----	-----	-----	-----	-----	0.740	0.147	0.89	Yes	0.695	0.296	1.00	Yes	1.00	**2.67**
		$U_5 - L_5$	60.01	-307.19	-246	267	47	-44	-4	19	229	155	0.108	0.408	0.52	Yes	0.059	0.224	0.29	Yes	0.689	0.184	0.88	Yes	0.650	0.342	1.00	Yes	1.00	**3.50**
		$U_6 - L_6$	-----	-285.36	36	-38	88	-94	1164	393	383	61	-----	-----	-----	-----	-----	-----	-----	-----	0.637	0.362	1.00	Yes	0.604	0.121	0.73	Yes	1.00	**2.60**
		$U_7 - L_7$	-----	-359.35	69	-82	246	-267	-8	-83	86	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.727	0.107	0.84	Yes	0.688	0.305	1.00	Yes	1.00	**2.13**
		$U_8 - L_8$	-----	-512.67	111	-108	308	-318	-61	-120	1123	218	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.257	1.00	Yes	0.703	0.271	0.98	Yes	1.00	**2.22**
		$U_9 - L_9$	-----	-652.71	130	-169	416	-513	-180	-136	240	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.121	0.91	Yes	0.760	0.238	1.00	Yes	1.00	**2.42**
		$U_{10} - L_{10}$	-----	-780.61	134	-109	393	-432	-13	40	334	-9	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.088	0.90	Yes	0.770	0.224	1.00	Yes	1.00	**2.80**
		$U_{11} - L_{11}$	-----	-644.36	168	-193	429	-489	-111	-11	362	135	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.147	0.92	Yes	0.728	0.272	1.00	Yes	1.00	**1.96**
		$U_{12} - L_{12}$	-----	-1150.27	-252	267	441	-579	-677	-108	1137	526	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.164	1.00	Yes	0.797	0.108	0.91	Yes	1.00	**3.49**
		$U_{13} - L_{13}$	-----	-443.40	-292	315	-70	81	-28	45	-209	-1	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.144	0.89	Yes	0.684	0.310	1.00	Yes	1.00	**2.30**
		$U_{14} - L_{14}$	-----	-514.71	-230	247	-46	25	-720	-480	-724	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.217	1.00	Yes	0.738	0.216	0.96	Yes	1.00	**2.89**
		$U_{15} - L_{15}$	-----	-438.37	-228	239	-51	50	-311	-269	-456	-298	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.191	0.99	Yes	0.756	0.242	1.00	Yes	1.00	**2.23**
		$U_{16} - L_{16}$	-----	-349.60	-190	196	-52	52	172	-41	-114	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.120	0.89	Yes	0.740	0.251	1.00	Yes	1.00	**3.06**
		$U_{17} - L_{17}$	309.11	-212.24	-269	310	203	-222	-26	99	-46	139	0.556	0.436	1.00	Yes	0.306	0.240	0.55	Yes	0.465	0.131	0.60	Yes	0.449	0.396	0.85	Yes	1.00	**7.89**
		$U_{18} - L_{18}$	142.59	-249.34	-131	147	153	-198	-149	22	1610	372	0.256	0.719	0.98	Yes	0.141	0.395	0.54	Yes	0.545	0.451	1.00	Yes	0.528	0.253	0.79	Yes	1.00	**3.45**
		$U_{19} - L_{19}$	84.53	-313.65	-87	72	261	-243	-91	20	254	52	0.152	0.407	0.56	Yes	0.084	0.224	0.31	Yes	0.685	0.144	0.83	Yes	0.664	0.334	1.00	Yes	1.00	**2.76**
		$U_{20} - L_{20}$	11.00	-308.98	13	-15	61	-170	-74	-24	676	217	0.020	0.413	0.44	Yes	0.012	0.227	0.24	Yes	0.690	0.306	1.00	Yes	0.654	0.217	0.88	Yes	1.00	**1.60**

Moment (End) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
North Truss - Diagonals	Structure 1	$U_0 - L_1$	625.93	-70.97	-125	72	-4	-11	-36	-93	18	48	0.821	0.169	1.00	Yes	0.496	0.093	0.59	Yes	0.121	0.096	0.22	Yes	0.110	0.146	0.26	Yes	1.00	**3.53**
		$U_1 - L_2$	460.74	-168.12	-90	9	31	-25	-163	-120	34	20	0.829	0.162	1.00	Yes	0.456	0.089	0.55	Yes	0.386	0.149	0.54	Yes	0.356	0.115	0.48	Yes	1.00	**3.82**
		$U_2 - L_3$	419.47	-106.85	-155	2	-33	-46	-121	-137	83	-1	0.754	0.238	1.00	Yes	0.415	0.131	0.55	Yes	0.246	0.207	0.46	Yes	0.226	0.198	0.43	Yes	1.00	**6.41**
		$U_3 - L_4$	-----	-323.07	55	-6	-70	-113	126	128	-154	-378	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.260	1.00	Yes	0.684	0.145	0.83	Yes	1.00	**4.22**
		$U_4 - L_4$	539.94	-----	-7	68	-106	0	48	5	-422	-372	0.792	0.206	1.00	Yes	0.435	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.53**
		$U_5 - L_5$	619.58	-----	-150	255	-49	100	-630	-181	32	-33	0.733	0.259	1.00	Yes	0.403	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.04**
		$U_5 - L_6$	668.89	-----	-278	280	-93	100	-114	-222	152	47	0.791	0.200	1.00	Yes	0.435	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.19**
		$U_6 - L_7$	643.98	-----	-52	352	-11	132	38	-7	170	98	0.761	0.232	1.00	Yes	0.419	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.37**
		$U_8 - L_8$	918.89	-----	27	423	21	144	587	345	348	101	0.735	0.263	1.00	Yes	0.455	0.148	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.16**
		$U_9 - L_{10}$	974.01	-----	-264	307	-76	88	633	554	174	137	0.779	0.217	1.00	Yes	0.482	0.123	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.10**
		$U_{10} - L_{11}$	965.96	-----	-184	253	-83	95	400	461	34	147	0.816	0.178	1.00	Yes	0.505	0.100	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.79**
		$U_{11} - L_{12}$	844.42	-----	-231	153	-91	39	357	366	42	104	0.835	0.162	1.00	Yes	0.459	0.089	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.62**
		$U_{12} - L_{13}$	644.05	-----	-201	172	-85	63	162	72	-13	-34	0.785	0.207	1.00	Yes	0.494	0.116	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.20**
		$U_{13} - L_{14}$	458.33	-----	-106	30	-32	11	26	-59	-65	-112	0.824	0.168	1.00	Yes	0.453	0.093	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.19**
		$U_{15} - L_{14}$	148.87	-31.73	-1	-30	-189	-225	-129	-135	-1536	-665	0.268	0.732	1.00	Yes	0.147	0.403	0.55	Yes	0.074	0.708	0.79	Yes	0.067	0.287	0.36	Yes	1.00	**12.72**
		$U_{16} - L_{15}$	299.34	-13.31	-120	72	-11	-6	-1063	-213	-83	-81	0.538	0.461	1.00	Yes	0.296	0.253	0.55	Yes	0.032	0.330	0.37	Yes	0.028	0.153	0.19	Yes	1.00	**2.52**
		$U_{17} - L_{16}$	492.90	-----	-139	90	-32	12	-579	-538	-105	-126	0.723	0.276	1.00	Yes	0.398	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.87**
		$U_{18} - L_{17}$	585.38	-----	-303	245	-109	73	-745	-525	-106	-112	0.692	0.307	1.00	Yes	0.381	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.01**
		$U_{19} - L_{18}$	642.89	-----	-339	249	-130	85	-759	-534	-61	-101	0.696	0.298	1.00	Yes	0.383	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.92**
		$U_{20} - L_{19}$	674.38	-----	-168	225	-93	90	-898	-378	-89	-34	0.730	0.263	1.00	Yes	0.402	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.12**
	Structure 2	$U_0 - L_1$	800.79	-----	-424	391	-95	81	-22	-70	-54	-30	0.792	0.208	1.00	Yes	0.436	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.01**
		$U_1 - L_2$	800.98	-----	-394	327	-72	51	-128	-43	-81	-6	0.792	0.202	1.00	Yes	0.436	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.04**
		$U_2 - L_3$	656.56	-----	-347	276	-62	46	-21	-17	1	111	0.776	0.217	1.00	Yes	0.427	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.56**
		$U_3 - L_4$	593.76	-----	-191	137	-24	4	-38	-45	135	75	0.791	0.203	1.00	Yes	0.435	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.48**
		$U_4 - L_5$	431.56	-87.74	-149	103	17	-25	-112	-12	106	-95	0.776	0.224	1.00	Yes	0.427	0.123	0.55	Yes	0.217	0.091	0.31	Yes	0.186	0.191	0.38	Yes	1.00	**2.99**
		$U_5 - L_6$	425.03	-219.74	-139	60	66	-64	-71	3	11	-173	0.764	0.227	1.00	Yes	0.420	0.125	0.55	Yes	0.519	0.179	0.70	Yes	0.465	0.177	0.65	Yes	1.00	**4.25**
		$U_6 - L_7$	-----	-385.52	9	-31	31	-109	-107	-202	125	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.165	1.00	Yes	0.739	0.124	0.87	Yes	1.00	**4.97**
		$U_8 - L_7$	479.43	-----	-162	120	-96	33	-469	-381	-1181	-801	0.611	0.386	1.00	Yes	0.385	0.224	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.46**
		$U_8 - L_8$	610.64	-----	-310	196	-126	91	-1074	-457	-158	-170	0.661	0.335	1.00	Yes	0.364	0.184	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.05**
		$U_{10} - L_9$	757.73	-----	-320	202	-111	87	-614	-666	-110	-140	0.750	0.248	1.00	Yes	0.412	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		$U_{11} - L_{10}$	824.46	-----	-336	265	-127	118	-715	-542	-31	-106	0.751	0.240	1.00	Yes	0.413	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.06**
		$U_{12} - L_{11}$	874.46	-----	-343	365	-138	151	-334	-262	55	-19	0.797	0.200	1.00	Yes	0.438	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.09**
		$U_{13} - L_{12}$	742.54	-----	-427	379	-143	146	-416	-239	374	157	0.735	0.261	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.79**
		$U_{14} - L_{13}$	711.12	-----	-203	442	4	147	-89	-244	585	218	0.704	0.292	1.00	Yes	0.387	0.161	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.35**
		$U_{14} - L_{15}$	582.88	-----	-112	393	60	38	464	44	244	-62	0.689	0.306	1.00	Yes	0.379	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.40**
		$U_{15} - L_{16}$	627.89	-----	-373	357	-30	39	208	131	-66	-19	0.742	0.249	1.00	Yes	0.408	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.68**
		$U_{16} - L_{17}$	706.02	-----	-305	373	-38	80	41	242	-219	101	0.765	0.231	1.00	Yes	0.421	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.19**
		$U_{17} - L_{18}$	649.84	-----	-284	298	-48	80	185	327	-47	176	0.768	0.228	1.00	Yes	0.423	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.98**
		$U_{18} - L_{19}$	620.02	-----	-304	309	-19	76	499	244	86	121	0.733	0.265	1.00	Yes	0.403	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.02**
		$U_{19} - L_{20}$	598.62	-----	-207	174	-10	41	235	213	16	87	0.763	0.233	1.00	Yes	0.420	0.131	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.88**
		$U_{20} - L_{21}$	440.50	-----	-133	113	-11	24	129	50	-24	32	0.792	0.208	1.00	Yes	0.436	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.71**
		$U_{21} - L_{22}$	411.92	-23.37	-133	57	-45	-51	286	104	212	-43	0.741	0.253	1.00	Yes	0.407	0.139	0.55	Yes	0.055	0.156	0.22	Yes	0.049	0.170	0.22	Yes	1.00	**6.42**
		$U_{23} - L_{22}$	353.60	-125.98	-126	41	-23	-70	-689	-336	-579	-165	0.636	0.361	1.00	Yes	0.350	0.199	0.55	Yes	0.300	0.328	0.63	Yes	0.267	0.161	0.43	Yes	1.00	**6.54**
		$U_{24} - L_{23}$	333.77	-----	-109	85	-26	19	-881	-168	-285	-168	0.600	0.395	1.00	Yes	0.330	0.217	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.31**
		$U_{25} - L_{24}$	549.72	-----	-193	161	-54	53	-607	-598	-327	-200	0.701	0.297	1.00	Yes	0.386	0.169	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.51**
		$U_{26} - L_{25}$	616.88	-----	-270	252	-60	76	-623	-423	20	-28	0.729	0.266	1.00	Yes	0.401	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.49**
		$U_{27} - L_{26}$	651.67	-----	-281	292	-39	81	-326	-242	261	119	0.770	0.224	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.05**
		$U_{28} - L_{27}$	648.78	-----	-298	354	-40	80	-662	-106	275	159	0.703	0.290	1.00	Yes	0.386	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.00**
		$U_{29} - L_{28}$	603.86	-----	-350	337	-54	61	-141	-240	451	235	0.714	0.280	1.00	Yes	0.393	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.11**
		$U_{30} - L_{29}$	613.75	-----	-152	386	30	61	-162	-71	284	156	0.726	0.270	1.00	Yes	0.399	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.90**
		$U_{30} - L_{31}$	701.26	-----	-169	478	33	60	512	77	281	-21	0.694	0.299	1.00	Yes	0.382	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
		$U_{31} - L_{32}$	758.27	-----	-439	405	-60	69	251	149	-46	16	0.750	0.241	1.00	Yes	0.413	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.72**
		$U_{32} - L_{33}$	870.41	-----	-335	361	-55	97	97	327	-183	133	0.793	0.198	1.00	Yes	0.436	0.109	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.50**
		$U_{33} - L_{34}$	828.85	-----	-371	363	-70	91	614	445	19	220	0.755	0.241	1.00	Yes	0.415	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.72**
		$U_{34} - L_{35}$	815.25	-----	-330	229	-87	73	267	207	80	25	0.807	0.193	1.00	Yes	0.444	0.106	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.01**
		$U_{35} - L_{36}$	736.47	-----	-354	244	-100	72	127	46	0	-53	0.798	0.202	1.00	Yes	0.439	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.87**
		$U_{36} - L_{37}$	602.09	-----	-199	170	-48	44	225	98	-53	-106	0.768	0.224	1.00	Yes	0.483	0.126	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.74**
		$U_{38} - L_{37}$	-----	-364.98	8	-23	37	-92	-151	-128	-359	-92	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.209	1.00	Yes	0.699	0.105	0.81	Yes	1.00	**3.89**
		$U_{39} - L_{38}$	247.63	-193.56	-93	23	59	-56	-1407	-248	-35	-19	0.445	0.527	0.98	Yes	0.245	0.290	0.54	Yes	0.461	0.530	1.00	Yes	0.410	0.120	0.53	Yes	1.00	**3.68**
		$U_{40} - L_{39}$	367.58	-106.23	-136	87	25	-27	-495	-543	-38	-36	0.661	0.331	1.00	Yes	0.364	0.182	0.55	Yes	0.254	0.279	0.54	Yes	0.225	0.174	0.40	Yes	1.00	**2.88**
		$U_{41} - L_{40}$	528.31	-----	-170	119	-8	-6	-636	-411	-71	-60	0.704	0.289	1.00	Yes	0.387	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.20**
		$U_{42} - L_{41}$	587.05	-----	-311	252	-34	19	-686	-479	-47	-45	0.694	0.300	1.00	Yes	0.382	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.25**
		$U_{43} - L_{42}$	716.02	-----	-384	303	-50	31	-735	-541	12	-31	0.708	0.288	1.00	Yes	0.390	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.42**
		$U_{44} - L_{43}$	729.53	-----	-198	285	-87	70	-959	-304	82	-18	0.722	0.276	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.53**
	Structure 3	$U_0 - L_1$	699.89	-----	-421	337	-108	89	28	-133	-64	-53	0.758	0.237	1.00	Yes	0.417	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		$U_1 - L_2$	732.67	-----	-345	271	-92	60	-176	-75	-127	-45	0.794	0.205	1.00	Yes	0.436	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		$U_2 - L_3$	664.32	-----	-352	270	-88	54	-16	-4	-47	80	0.785	0.214	1.00	Yes	0.432	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.07**
		$U_3 - L_4$	554.78	-----	-160	111	-24	5	3	-30	77	49	0.814	0.181	1.00	Yes	0.447	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.70**
		$U_4 - L_5$	432.28	-49.99	-149	103	-2	-14	-94	-53	52	-106	0.777	0.221	1.00	Yes	0.428	0.121	0.55	Yes	0.118	0.091	0.21	Yes	0.106	0.190	0.30	Yes	1.00	**3.42**
		$U_5 - L_6$	379.34	-20.73	-2	-25	-203	-135	-59	-194	-172	-181	0.682	0.316	1.00	Yes	0.375	0.174	0.55	Yes	0.049	0.279	0.33	Yes	0.044	0.260	0.31	Yes	1.00	**9.90**
		$U_7 - L_6$	393.30	-----	-38	32	-106	-10	-156	-206	-512	-399	0.707	0.284	1.00	Yes	0.389	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		$U_8 - L_7$	536.75	-----	-182	141	-70	49	-953	-374	-198	-184	0.654	0.345	1.00	Yes	0.412	0.199	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.08**
		$U_8 - L_8$	790.08	-----	-233	126	-80	29	-686	-717	-169	-205	0.782	0.215	1.00	Yes	0.430	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.43**
		$U_{10} - L_9$	949.88	-----	-204	231	-75	68	-628	-542	-89	-140	0.802	0.189	1.00	Yes	0.497	0.107	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.73**
		$U_{11} - L_{10}$	998.91	-----	-283	308	-95	86	-480	-356	54	-20	0.799	0.198	1.00	Yes	0.495	0.112	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.85**
		$U_{12} - L_{11}$	974.34	-----	-16	421	-3	129	-229	-135	216	144	0.779	0.217	1.00	Yes	0.482	0.121	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.06**
		$U_{12} - L_{13}$	623.00	-----	-19	366	38	84	259	10	198	-27	0.737	0.256	1.00	Yes	0.405	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.36**
		$U_{13} - L_{14}$	669.15	-----	-274	303	-51	66	171	153	-96	21	0.791	0.204	1.00	Yes	0.435	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.22**
		$U_{14} - L_{15}$	669.19	-----	-133	273	-22	67	108	253	-59	75	0.791	0.202	1.00	Yes	0.435	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.68**
		$U_{15} - L_{16}$	568.39	-----	7	78	-112	8	130	213	45	150	0.834	0.164	1.00	Yes	0.458	0.090	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.96**
		$U_{17} - L_{16}$	-----	-272.55	56	8	-93	-149	521	317	-608	-280	-----	-----	-----	-----	-----	-----	-----	-----	0.623	0.373	1.00	Yes	0.577	0.190	0.77	Yes	1.00	**6.32**
		$U_{18} - L_{17}$	-----	-241.07	3	-11	4	-44	12	17	-1615	-107	-----	-----	-----	-----	-----	-----	-----	-----	0.555	0.437	1.00	Yes	0.510	0.057	0.57	Yes	1.00	**4.88**
		$U_{19} - L_{18}$	383.69	-184.38	-103	21	36	-24	-616	-560	250	195	0.690	0.310	1.00	Yes	0.380	0.170	0.55	Yes	0.423	0.319	0.75	Yes	0.390	0.131	0.53	Yes	1.00	**2.93**
		$U_{20} - L_{19}$	326.43	-406.23	-108	54	-25	-28	-461	-462	555	542	0.428	0.266	0.70	Yes	0.259	0.146	0.41	Yes	0.694	0.303	1.00	Yes	0.627	0.126	0.76	Yes	1.00	**7.33**

Moment (End) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
Center Truss - Upper Chord	Structure 1	$U_0 - U_1$	107.89	-594.76	-249	222	166	-793	-26	-63	355	-453	0.124	0.265	0.39	Yes	0.085	0.181	0.27	Yes	0.809	0.171	0.98	Yes	0.802	0.189	1.00	Yes	1.00	**7.13**
		$U_1 - U_2$	131.33	-576.38	-40	174	-210	-632	-49	42	258	-166	0.151	0.194	0.35	Yes	0.103	0.133	0.24	Yes	0.784	0.208	1	Yes	0.777	0.150	0.93	Yes	1.00	**3.67**
		$U_2 - U_3$	287.39	-655.57	-39	394	-381	-324	-60	-89	386	-138	0.329	0.159	0.49	Yes	0.222	0.105	0.33	Yes	0.892	0.105	1	Yes	0.884	0.094	0.98	Yes	1.00	**4.01**
		$U_3 - U_4$	371.80	-554.14	124	298	-323	-767	-117	-97	20	-171	0.426	0.211	0.64	Yes	0.292	0.145	0.44	Yes	0.754	0.246	1	Yes	0.747	0.182	0.93	Yes	1.00	**3.22**
		$U_4 - U_5$	432.84	-587.49	135	345	-844	-156	-119	48	-101	-194	0.496	0.233	0.73	Yes	0.340	0.160	0.51	Yes	0.799	0.200	1	Yes	0.792	0.201	1.00	Yes	1.00	**3.90**
		$U_5 - U_6$	241.81	-492.93	-172	848	-489	137	-93	-269	48	-853	0.277	0.346	0.63	Yes	0.187	0.228	0.42	Yes	0.671	0.327	1	Yes	0.665	0.202	0.87	Yes	1.00	**5.79**
		$U_6 - U_7$	887.35	-----	349	215	-472	8	-353	145	-100	-104	0.849	0.149	1.00	Yes	0.593	0.102	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		$U_7 - U_8$	968.51	-----	-459	1870	-62	684	-359	295	-242	173	0.671	0.320	1.00	Yes	0.468	0.218	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.81**
		$U_8 - U_9$	804.69	-----	1031	-61	1703	-873	-104	99	142	428	0.659	0.338	1.00	Yes	0.451	0.230	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.13**
		$U_9 - U_{10}$	723.51	-59.18	257	348	199	-572	69	306	426	537	0.785	0.215	1.00	Yes	0.532	0.144	0.68	Yes	0.076	0.249	0.33	Yes	0.076	0.128	0.21	Yes	1.00	**7.03**
		$U_{10} - U_{11}$	288.44	-610.74	314	-5	280	-962	191	54	528	51	0.313	0.300	0.62	Yes	0.208	0.194	0.41	Yes	0.786	0.208	1	Yes	0.779	0.215	1.00	Yes	1.00	**5.02**
		$U_{11} - U_{12}$	-----	-890.08	201	-95	-47	-727	141	47	407	210	-----	-----	-----	-----	-----	-----	-----	-----	0.843	0.148	1	Yes	0.835	0.121	0.96	Yes	1.00	**3.23**
		$U_{12} - U_{13}$	-----	-1307.01	2	-151	-175	-607	219	-25	369	-190	-----	-----	-----	-----	-----	-----	-----	-----	0.884	0.116	1	Yes	0.873	0.084	0.96	Yes	1.00	**3.52**
		$U_{13} - U_{14}$	-----	-1357.64	-112	-356	-433	-1672	151	60	178	-5	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.211	1	Yes	0.778	0.184	0.97	Yes	1.00	**2.56**
		$U_{14} - U_{15}$	-----	-1353.43	-253	-187	-1572	-583	182	-56	266	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.215	1	Yes	0.776	0.173	0.95	Yes	1.00	**2.54**
		$U_{15} - U_{16}$	-----	-1463.74	-60	-413	-450	-990	18	-63	186	-558	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.148	1	Yes	0.839	0.109	0.95	Yes	1.00	**3.02**
		$U_{16} - U_{17}$	-----	-1415.61	-314	-185	-1267	-456	47	-171	176	-237	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.171	1	Yes	0.812	0.140	0.96	Yes	1.00	**3.21**
		$U_{17} - U_{18}$	-----	-1075.94	-619	16	-164	-109	-141	-418	-152	-182	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.139	1	Yes	0.842	0.101	0.95	Yes	1.00	**3.13**
		$U_{18} - U_{19}$	-----	-650.15	-572	26	-416	-36	-228	-293	-1074	-490	-----	-----	-----	-----	-----	-----	-----	-----	0.738	0.252	1	Yes	0.731	0.115	0.85	Yes	1.00	**2.57**
		$U_{19} - U_{20}$	-----	-633.00	-1363	930	-119	-172	-788	-367	10	38	-----	-----	-----	-----	-----	-----	-----	-----	0.719	0.279	1	Yes	0.712	0.274	0.99	Yes	1.00	**10.91**
	Structure 2	$U_0 - U_1$	-----	-652.08	161	-50	-21	-1310	105	191	301	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.198	0.98	Yes	0.770	0.222	1.00	Yes	1.00	**5.84**
		$U_1 - U_2$	-----	-808.80	-108	-102	-91	-840	346	684	284	-116	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.204	1	Yes	0.781	0.128	0.91	Yes	1.00	**2.96**
		$U_2 - U_3$	-----	-1179.04	-85	-165	-219	-1114	632	-10	149	20	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.152	1	Yes	0.837	0.113	0.96	Yes	1.00	**3.08**
		$U_3 - U_4$	-----	-1445.08	-341	-234	-911	-1128	97	-346	434	342	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.165	1	Yes	0.823	0.100	0.93	Yes	1.00	**2.91**
		$U_4 - U_5$	-----	-1549.63	-335	-261	-1005	-1462	-110	-391	583	32	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.190	1	Yes	0.796	0.121	0.92	Yes	1.00	**2.79**
		$U_5 - U_6$	-----	-1658.60	-318	135	-1210	-652	-165	-336	168	-283	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.137	1	Yes	0.852	0.100	0.96	Yes	1.00	**3.08**
		$U_6 - U_7$	-----	-1373.29	-215	-31	-857	-1496	-113	-277	-5	-405	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.204	1	Yes	0.782	0.133	0.92	Yes	1.00	**2.37**
		$U_7 - U_8$	-----	-1386.24	-122	-151	-1594	-748	-209	-232	-146	-340	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.204	1	Yes	0.789	0.142	0.94	Yes	1.00	**2.42**
		$U_8 - U_9$	-----	-1262.65	-279	181	-805	-603	-159	-101	112	-481	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.129	1	Yes	0.856	0.086	0.95	Yes	1.00	**2.67**
		$U_9 - U_{10}$	214.14	-955.96	-42	367	-1358	-118	-196	-42	141	-131	0.157	0.187	0.35	Yes	0.106	0.126	0.24	Yes	0.830	0.161	1	Yes	0.825	0.165	1.00	Yes	1.00	**2.70**
		$U_{10} - U_{11}$	731.07	-836.46	247	508	-979	-119	-201	-38	-221	-385	0.618	0.185	0.81	Yes	0.420	0.121	0.55	Yes	0.836	0.159	1	Yes	0.831	0.138	0.97	Yes	1.00	**4.32**
		$U_{11} - U_{12}$	812.36	-----	-1319	1104	-143	222	-969	-828	-293	-261	0.686	0.304	1.00	Yes	0.461	0.203	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.18**
		$U_{12} - U_{13}$	1247.80	-----	418	57	70	-575	-466	5	-795	-518	0.843	0.148	1.00	Yes	0.601	0.103	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.64**
		$U_{13} - U_{14}$	1246.25	-----	-1189	3759	-339	1646	-259	116	-457	-25	0.613	0.379	1.00	Yes	0.434	0.248	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.67**
		$U_{14} - U_{15}$	1232.08	-----	1884	216	3663	-957	-698	-279	100	743	0.606	0.390	1.00	Yes	0.429	0.256	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.81**
		$U_{15} - U_{16}$	1300.82	-----	208	832	-270	-886	-384	109	726	1230	0.786	0.205	1.00	Yes	0.559	0.141	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.79**
		$U_{16} - U_{17}$	1105.82	-----	654	529	676	-886	79	-6	687	498	0.815	0.184	1.00	Yes	0.542	0.121	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.52**
		$U_{17} - U_{18}$	782.55	-----	437	463	633	-1085	-78	-38	203	185	0.786	0.214	1.00	Yes	0.523	0.142	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.48**
		$U_{18} - U_{19}$	804.09	-528.57	598	513	377	-870	-217	-69	269	-183	0.807	0.187	1.00	Yes	0.530	0.119	0.65	Yes	0.628	0.173	0.81	Yes	0.624	0.148	0.78	Yes	1.00	**5.46**
		$U_{19} - U_{20}$	542.48	-760.34	427	326	-275	-715	-159	66	385	246	0.509	0.166	0.68	Yes	0.337	0.109	0.45	Yes	0.844	0.155	1	Yes	0.839	0.114	0.96	Yes	1.00	**4.14**
		$U_{20} - U_{21}$	488.97	-943.16	252	283	-196	-711	7	39	268	-247	0.379	0.132	0.52	Yes	0.266	0.086	0.36	Yes	0.867	0.124	1	Yes	0.861	0.103	0.97	Yes	1.00	**4.12**
		$U_{21} - U_{22}$	270.60	-829.95	98	109	-514	-1350	-34	48	75	-97	0.210	0.206	0.42	Yes	0.149	0.137	0.29	Yes	0.763	0.230	1	Yes	0.757	0.196	0.96	Yes	1.00	**2.75**
		$U_{22} - U_{23}$	253.07	-824.48	112	95	-1348	-518	-129	-34	89	-131	0.196	0.210	0.41	Yes	0.139	0.139	0.28	Yes	0.758	0.236	1	Yes	0.752	0.195	0.95	Yes	1.00	**2.73**
		$U_{23} - U_{24}$	380.19	-905.53	247	166	-470	-598	-212	-2	24	-556	0.295	0.147	0.45	Yes	0.206	0.098	0.31	Yes	0.832	0.162	1	Yes	0.826	0.087	0.92	Yes	1.00	**3.47**
		$U_{24} - U_{25}$	429.15	-755.58	232	318	-878	-210	-207	43	88	-146	0.402	0.168	0.58	Yes	0.267	0.111	0.38	Yes	0.839	0.154	1	Yes	0.834	0.141	0.98	Yes	1.00	**3.51**
		$U_{25} - U_{26}$	853.67	-156.47	526	574	-525	-115	-282	169	-268	-198	0.857	0.139	1.00	Yes	0.562	0.089	0.66	Yes	0.186	0.125	0.32	Yes	0.185	0.098	0.29	Yes	1.00	**6.13**
		$U_{26} - U_{27}$	374.98	-422.77	-2942	1265	-1020	149	-529	-268	-137	-402	0.376	0.577	0.96	Yes	0.251	0.382	0.64	Yes	0.502	0.223	0.73	Yes	0.499	0.499	1.00	Yes	1.00	**11.01**
		$U_{27} - U_{28}$	1028.77	-----	-615	1407	-3	273	-577	-578	-243	-126	0.758	0.237	1.00	Yes	0.504	0.156	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.29**
		$U_{28} - U_{29}$	1373.27	-----	534	36	-707	-329	-161	574	-970	-674	0.830	0.162	1.00	Yes	0.591	0.112	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.17**
		$U_{29} - U_{30}$	1272.80	-----	-611	3673	-159	1503	-495	253	-256	187	0.626	0.374	1.00	Yes	0.443	0.245	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.64**
		$U_{30} - U_{31}$	1217.29	-----	2018	87	3507	-1368	-471	-182	577	1067	0.599	0.398	1.00	Yes	0.424	0.261	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.56**
		$U_{31} - U_{32}$	1185.50	-----	148	575	-415	-688	-117	173	870	1136	0.801	0.195	1.00	Yes	0.571	0.135	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.00**
		$U_{32} - U_{33}$	890.93	-----	577	343	791	-1198	161	45	639	272	0.753	0.247	1.00	Yes	0.505	0.165	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.22**
		$U_{33} - U_{34}$	765.83	-820.04	524	394	-192	-1063	21	42	530	306	0.647	0.215	0.87	Yes	0.440	0.140	0.59	Yes	0.820	0.179	1	Yes	0.815	0.150	0.97	Yes	1.00	**4.59**
		$U_{34} - U_{35}$	380.87	-981.47	465	77	-196	-1176	106	39	385	-12	0.279	0.185	0.47	Yes	0.189	0.125	0.32	Yes	0.852	0.143	1	Yes	0.847	0.143	1.00	Yes	1.00	**3.24**
		$U_{35} - U_{36}$	104.33	-1283.42	246	-164	-356	-879	58	50	309	-47	0.060	0.119	0.18	Yes	0.042	0.078	0.13	Yes	0.877	0.116	1	Yes	0.870	0.093	0.97	Yes	1.00	**3.14**
		$U_{36} - U_{37}$	-----	-1378.78	-72	7	-772	-1628	165	-23	456	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.205	1	Yes	0.785	0.145	0.94	Yes	1.00	**2.67**
		$U_{37} - U_{38}$	-----	-1377.27	120	-174	-1542	-898	21	40	243	62	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.208	1	Yes	0.784	0.137	0.93	Yes	1.00	**2.66**
		$U_{38} - U_{39}$	-----	-1602.26	125	-361	-423	-1696	88	-83	284	-442	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.163	1	Yes	0.823	0.141	0.97	Yes	1.00	**2.85**
		$U_{39} - U_{40}$	-----	-1514.18	-273	-453	-1844	-899	-115	-119	197	-290	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.209	1	Yes	0.777	0.153	0.94	Yes	1.00	**2.66**
		$U_{40} - U_{41}$	-----	-1475.35	-345	-410	-940	-856	-90	-97	-200	-417	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.149	1	Yes	0.840	0.084	0.93	Yes	1.00	**3.07**
		$U_{41} - U_{42}$	-----	-1095.42	-1054	-7	-993	-234	-344	-1225	-93	-217	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.209	1	Yes	0.777	0.107	0.89	Yes	1.00	**3.85**
		$U_{42} - U_{43}$	-----	-850.88	-822	-38	-694	-68	-387	-418	-51	-252	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.164	1	Yes	0.821	0.125	0.95	Yes	1.00	**3.57**
		$U_{43} - U_{44}$	-----	-594.87	-1374	658	58	-289	-727	-332	43	34	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.288	1	Yes	0.703	0.233	0.94	Yes	1.00	**8.43**
	Structure 3	$U_0 - U_1$	-----	-665.04	158	-138	34	-1218	63	122	422	-147	-----	-----	-----	-----	-----	-----	-----	-----	0.755	0.211	0.97	Yes	0.748	0.245	1.00	Yes	1.00	**7.75**
		$U_1 - U_2$	-----	-705.04	-68	-105	-13	-619	249	510	316	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.192	1	Yes	0.793	0.124	0.92	Yes	1.00	**3.14**
		$U_2 - U_3$	-----	-1054.07	-81	-105	22	-667	517	1	790	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.162	1	Yes	0.825	0.109	0.94	Yes	1.00	**3.64**
		$U_3 - U_4$	-----	-1424.34	-141	-194	-497	-1079	125	-245	484	327	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.166	1	Yes	0.817	0.119	0.94	Yes	1.00	**3.67**
		$U_4 - U_5$	-----	-1517.20	-354	-15	-628	-629	32	-233	139	-542	-----	-----	-----	-----	-----	-----	-----	-----	0.879	0.113	1	Yes	0.870	0.069	0.94	Yes	1.00	**3.73**
		$U_5 - U_6$	-----	-1345.33	-156	-233	-566	-1626	-45	-204	-9	-236	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.220	1	Yes	0.771	0.179	0.96	Yes	1.00	**2.62**
		$U_6 - U_7$	-----	-1380.99	-307	-82	-1411	-477	-93	-236	7	-317	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.191	1	Yes	0.792	0.156	0.95	Yes	1.00	**3.00**
		$U_7 - U_8$	-----	-1260.26	-138	-14	-508	-422	-137	-130	0	-666	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.142	1	Yes	0.842	0.070	0.92	Yes	1.00	**3.19**
		$U_8 - U_9$	-----	-898.16	-462	200	-832	-1	-58	-248	83	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.144	1	Yes	0.843	0.138	0.99	Yes	1.00	**2.85**
		$U_9 - U_{10}$	-----	-341.10	-2486	1794	-184	74	-423	-1088	-169	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.439	0.500	0.94	Yes	0.435	0.557	1.00	Yes	1.00	**18.04**
		$U_{10} - U_{11}$	715.75	-----	-123	448	4	53	-734	-363	-226	-113	0.776	0.218	1.00	Yes	0.526	0.146	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.62**
		$U_{11} - U_{12}$	831.89	-----	-567	1564	-178	612	-423	-16	-295	9	0.682	0.314	1.00	Yes	0.466	0.214	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.72**
		$U_{12} - U_{13}$	1013.32	-----	1093	86	1651	-656	-444	-56	-73	301	0.702	0.295	1.00	Yes	0.490	0.201	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.43**
		$U_{13} - U_{14}$	876.45	-----	240	398	-28	-308	-174	308	272	496	0.838	0.153	1.00	Yes	0.586	0.105	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.64**
		$U_{14} - U_{15}$	717.25	-267.94	466	294	326	-391	31	186	392	-36	0.822	0.177	1.00	Yes	0.555	0.117	0.68	Yes	0.365	0.177	0.55	Yes	0.361	0.111	0.48	Yes	1.00	**4.54**
		$U_{15} - U_{16}$	381.17	-569.22	308	166	-122	-954	-21	157	108	115	0.437	0.253	0.70	Yes	0.300	0.174	0.48	Yes	0.775	0.212	0.99	Yes	0.768	0.227	1.00	Yes	1.00	**3.33**
		$U_{16} - U_{17}$	455.28	-623.88	395	136	-569	-419	7	108	175	-102	0.522	0.165	0.69	Yes	0.358	0.113	0.48	Yes	0.849	0.142	1	Yes	0.841	0.135	0.98	Yes	1.00	**4.11**
		$U_{17} - U_{18}$	218.36	-621.09	339	-107	-212	-621	-81	231	95	-352	0.250	0.207	0.46	Yes	0.169	0.136	0.31	Yes	0.845	0.150	1	Yes	0.838	0.148	0.99	Yes	1.00	**3.35**
		$U_{18} - U_{19}$	42.20	-558.71	48	-11	-740	-175	429	75	202	4	0.048	0.248	0.30	Yes	0.033	0.170	0.21	Yes	0.760	0.236	1	Yes	0.753	0.176	0.93	Yes	1.00	**3.00**
		$U_{19} - U_{20}$	128.77	-585.72	-850	456	366	-693	57	-206	53	113	0.148	0.237	0.39	Yes	0.101	0.162	0.27	Yes	0.797	0.168	0.97	Yes	0.790	0.202	1.00	Yes	1.00	**10.04**

Moment (End) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

| | | | Vehicle | Pedestrian | Axial Force | | ZZ Axis Bending | | | | YY Axis Bending | | | | Tension | | | | | | | Compression | | | | | | |

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.299	1	Yes	0.657	0.255	0.92	Yes	1.00	**2.33**
Center Truss - Verticals	Structure 1	$U_0 - L_0$			-----	-310.42	-150	200	-1	21	-720	-231	-72	-23	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.299	1	Yes	0.657	0.255	0.92	Yes	1.00	**2.33**
		$U_1 - L_1$			74.04	-333.90	-217	224	56	-52	-117	-49	107	41	0.133	0.321	0.46	Yes	0.073	0.176	0.25	Yes	0.730	0.114	0.85	Yes	0.707	0.287	1.00	Yes	1.00	**4.35**
		$U_2 - L_2$			137.03	-309.11	-213	264	121	-136	62	101	97	9	0.246	0.367	0.62	Yes	0.136	0.202	0.34	Yes	0.676	0.135	0.82	Yes	0.654	0.338	1.00	Yes	1.00	**5.81**
		$U_3 - L_3$			218.91	-268.38	-309	332	184	-216	11	255	-236	-221	0.394	0.498	0.90	Yes	0.217	0.274	0.50	Yes	0.588	0.172	0.77	Yes	0.568	0.424	1.00	Yes	1.00	**7.93**
		$U_4 - L_4$			-----	-374.24	54	-55	159	-162	-160	-74	-93	-42	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.097	0.93	Yes	0.792	0.207	1.00	Yes	1.00	**2.92**
		$U_5 - L_5$			-----	-422.33	59	-66	247	-260	-150	-46	-95	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.106	0.87	Yes	0.729	0.264	1.00	Yes	1.00	**2.32**
		$U_6 - L_6$			-----	-466.39	72	-72	195	-210	-135	0	1134	419	-----	-----	-----	-----	-----	-----	-----	-----	0.706	0.290	1	Yes	0.669	0.184	0.86	Yes	1.00	**1.99**
		$U_7 - L_7$			-----	-436.34	119	-132	303	-328	-130	46	0	99	-----	-----	-----	-----	-----	-----	-----	-----	0.729	0.125	0.86	Yes	0.673	0.323	1.00	Yes	1.00	**1.84**
		$U_8 - L_8$			-----	-1197.22	-289	342	353	-432	-1101	-382	628	149	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.129	1	Yes	0.830	0.080	0.92	Yes	1.00	**4.36**
		$U_9 - L_9$			-----	-643.77	-403	476	-176	203	-108	-347	-245	-171	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.154	0.93	Yes	0.727	0.265	1.00	Yes	1.00	**2.55**
		$U_{10} - L_{10}$			-----	-807.19	-361	384	-137	102	-297	-221	-214	-167	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.114	0.95	Yes	0.796	0.199	1.00	Yes	1.00	**4.28**
		$U_{11} - L_{11}$			-----	-668.96	-372	463	-118	161	-157	-34	-140	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.091	0.9	Yes	0.779	0.215	1.00	Yes	1.00	**3.29**
		$U_{12} - L_{12}$			-----	-535.43	-298	307	-103	102	-99	63	-125	5	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.090	0.87	Yes	0.735	0.262	1.00	Yes	1.00	**3.00**
		$U_{13} - L_{13}$			-----	-367.92	-237	256	-64	78	-81	107	-106	45	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.101	0.85	Yes	0.705	0.292	1.00	Yes	1.00	**2.29**
		$U_{14} - L_{14}$			-----	-247.80	-124	144	-34	40	-1596	-122	-1337	-225	-----	-----	-----	-----	-----	-----	-----	-----	0.553	0.442	1	Yes	0.524	0.184	0.71	Yes	1.00	**3.28**
		$U_{15} - L_{15}$			54.55	-297.66	-45	44	278	-286	-156	-89	-94	-227	0.098	0.431	0.53	Yes	0.054	0.237	0.30	Yes	0.667	0.181	0.85	Yes	0.630	0.365	1.00	Yes	1.00	**4.68**
		$U_{16} - L_{16}$			1.26	-323.30	10	-14	234	-245	-165	-111	-94	-218	0.002	0.377	0.38	Yes	0.001	0.207	0.21	Yes	0.729	0.164	0.9	Yes	0.684	0.314	1.00	Yes	1.00	**3.86**
		$U_{17} - L_{17}$			-----	-438.22	43	-55	218	-237	-170	-99	42	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.131	0.96	Yes	0.756	0.240	1.00	Yes	1.00	**2.72**
		$U_{18} - L_{18}$			-----	-536.36	116	-121	425	-443	-158	-63	65	-9	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.094	0.88	Yes	0.746	0.251	1.00	Yes	1.00	**3.21**
		$U_{19} - L_{19}$			-----	-651.17	130	-143	483	-509	-69	3	363	148	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.149	0.97	Yes	0.758	0.236	1.00	Yes	1.00	**3.63**
		$U_{20} - L_{20}$			-----	-599.20	163	-209	404	-504	17	2	545	71	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.201	1	Yes	0.697	0.234	0.94	Yes	1.00	**2.71**
	Structure 2	$U_0 - L_0$			-----	-647.76	-402	521	-94	155	-786	-133	-274	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.216	1	Yes	0.694	0.221	0.92	Yes	1.00	**2.43**
		$U_1 - L_1$			-----	-696.84	-466	508	-88	95	-858	-283	57	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.194	1	Yes	0.747	0.215	0.97	Yes	1.00	**3.26**
		$U_2 - L_2$			-----	-593.93	-446	473	-48	56	-703	-196	133	52	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.176	0.98	Yes	0.757	0.242	1.00	Yes	1.00	**3.43**
		$U_3 - L_3$			-----	-486.70	-214	237	-24	30	-507	-166	41	146	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.167	1	Yes	0.763	0.215	0.98	Yes	1.00	**3.15**
		$U_4 - L_4$			29.62	-341.14	-204	212	17	-9	40	238	-42	101	0.053	0.340	0.40	Yes	0.029	0.187	0.22	Yes	0.774	0.127	0.91	Yes	0.722	0.271	1.00	Yes	1.00	**3.61**
		$U_5 - L_5$			111.81	-337.74	-191	219	80	-77	5	246	-97	0	0.201	0.351	0.56	Yes	0.111	0.193	0.31	Yes	0.763	0.128	0.9	Yes	0.715	0.280	1.00	Yes	1.00	**4.96**
		$U_6 - L_6$			245.37	-290.97	-290	299	155	-172	56	340	-130	-79	0.441	0.481	0.93	Yes	0.243	0.265	0.51	Yes	0.655	0.169	0.83	Yes	0.616	0.383	1.00	Yes	1.00	**8.97**
		$U_7 - L_7$			-----	-229.19	50	-58	317	-370	-128	-34	-1239	-338	-----	-----	-----	-----	-----	-----	-----	-----	0.518	0.477	1	Yes	0.485	0.473	0.96	Yes	1.00	**12.69**
		$U_8 - L_8$			-----	-458.24	113	-125	371	-382	-166	-113	-641	-477	-----	-----	-----	-----	-----	-----	-----	-----	0.664	0.223	0.89	Yes	0.660	0.335	1.00	Yes	1.00	**3.37**
		$U_9 - L_9$			-----	-666.87	202	-207	456	-511	-220	-118	1858	312	-----	-----	-----	-----	-----	-----	-----	-----	0.742	0.253	1	Yes	0.715	0.217	0.94	Yes	1.00	**3.28**
		$U_{10} - L_{10}$			-----	-786.47	184	-194	565	-589	-162	-77	-44	-97	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.098	0.88	Yes	0.735	0.260	1.00	Yes	1.00	**3.79**
		$U_{11} - L_{11}$			-----	-841.18	196	-196	433	-465	-122	-13	-81	34	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.078	0.93	Yes	0.786	0.205	1.00	Yes	1.00	**2.65**
		$U_{12} - L_{12}$			-----	-889.33	176	-153	514	-492	-58	59	49	119	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.086	0.94	Yes	0.771	0.221	1.00	Yes	1.00	**2.79**
		$U_{13} - L_{13}$			-----	-733.34	265	-264	597	-599	-55	58	-22	99	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.111	0.93	Yes	0.707	0.286	1.00	Yes	1.00	**2.53**
		$U_{14} - L_{14}$			-----	-1201.30	-394	362	625	-598	-832	-292	702	392	-----	-----	-----	-----	-----	-----	-----	-----	0.879	0.116	1	Yes	0.797	0.111	0.91	Yes	1.00	**4.76**
		$U_{15} - L_{15}$			-----	-702.90	-655	657	-136	151	-183	-151	-33	15	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.156	0.94	Yes	0.678	0.314	1.00	Yes	1.00	**3.40**
		$U_{16} - L_{16}$			-----	-736.62	-490	451	-83	49	-292	-207	-134	-53	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.116	0.97	Yes	0.789	0.208	1.00	Yes	1.00	**2.90**
		$U_{17} - L_{17}$			-----	-642.90	-542	533	-137	125	-160	-94	-85	-42	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.092	0.89	Yes	0.748	0.251	1.00	Yes	1.00	**2.50**
		$U_{18} - L_{18}$			-----	-613.45	-380	420	-130	116	-188	-60	-77	-39	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.088	0.91	Yes	0.782	0.215	1.00	Yes	1.00	**2.36**
		$U_{19} - L_{19}$			-----	-481.47	-284	287	-86	77	105	-162	-90	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.724	0.093	0.82	Yes	0.719	0.277	1.00	Yes	1.00	**3.46**
		$U_{20} - L_{20}$			-----	-384.84	-208	222	-55	54	-149	76	-124	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.103	0.9	Yes	0.737	0.253	1.00	Yes	1.00	**3.35**
		$U_{21} - L_{21}$			-----	-314.70	-245	255	-27	37	-132	96	-438	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.711	0.201	0.92	Yes	0.666	0.326	1.00	Yes	1.00	**3.50**
		$U_{22} - L_{22}$			-----	-226.57	-125	146	174	-198	245	97	-1479	-478	-----	-----	-----	-----	-----	-----	-----	-----	0.510	0.488	1	Yes	0.479	0.253	0.74	Yes	1.00	**13.06**
		$U_{23} - L_{23}$			-----	-309.11	24	-25	265	-270	-90	34	-97	-150	-----	-----	-----	-----	-----	-----	-----	-----	0.698	0.146	0.85	Yes	0.654	0.345	1.00	Yes	1.00	**3.77**
		$U_{24} - L_{24}$			-----	-378.95	44	-46	225	-237	-131	24	-84	-133	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.111	0.89	Yes	0.726	0.271	1.00	Yes	1.00	**3.56**
		$U_{25} - L_{25}$			-----	-471.96	81	-78	307	-304	-121	33	81	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.710	0.088	0.8	Yes	0.705	0.295	1.00	Yes	1.00	**3.08**
		$U_{26} - L_{26}$			-----	-599.87	135	-134	402	-452	-153	22	-64	12	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.085	0.89	Yes	0.764	0.231	1.00	Yes	1.00	**2.35**
		$U_{27} - L_{27}$			-----	-630.58	157	-155	568	-569	-148	43	-98	55	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.082	0.87	Yes	0.734	0.264	1.00	Yes	1.00	**2.44**
		$U_{28} - L_{28}$			-----	-657.24	136	-118	442	-434	-117	38	1362	262	-----	-----	-----	-----	-----	-----	-----	-----	0.759	0.238	1	Yes	0.704	0.187	0.90	Yes	1.00	**2.21**
		$U_{29} - L_{29}$			-----	-698.35	226	-229	677	-674	-99	39	111	118	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.125	0.91	Yes	0.673	0.324	1.00	Yes	1.00	**2.92**
		$U_{30} - L_{30}$			-----	-1187.69	-457	403	425	-430	-807	-375	558	202	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.127	1	Yes	0.788	0.081	0.87	Yes	1.00	**4.18**
		$U_{31} - L_{31}$			-----	-745.09	-586	587	-187	189	-195	-141	-113	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.149	0.98	Yes	0.718	0.281	1.00	Yes	1.00	**2.86**
		$U_{32} - L_{32}$			-----	-903.07	-483	446	-123	88	-294	-195	-183	-107	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.132	1	Yes	0.783	0.207	0.99	Yes	1.00	**3.05**
		$U_{33} - L_{33}$			-----	-858.48	-404	430	-169	146	-156	-82	-139	-78	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.080	0.95	Yes	0.803	0.190	1.00	Yes	1.00	**2.91**
		$U_{34} - L_{34}$			-----	-806.11	-501	552	-156	162	-732	-252	-102	19	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.167	0.97	Yes	0.754	0.244	1.00	Yes	1.00	**4.83**
		$U_{35} - L_{35}$			-----	-710.34	-514	557	-180	186	48	293	-105	35	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.084	0.88	Yes	0.761	0.236	1.00	Yes	1.00	**4.45**
		$U_{36} - L_{36}$			-----	-473.27	-343	360	-103	116	-52	193	-103	47	-----	-----	-----	-----	-----	-----	-----	-----	0.686	0.101	0.79	Yes	0.682	0.315	1.00	Yes	1.00	**3.47**
		$U_{37} - L_{37}$			-----	-238.50	-110	133	-57	68	-1768	73	-121	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.539	0.454	1	Yes	0.505	0.170	0.68	Yes	1.00	**3.15**
		$U_{38} - L_{38}$			219.81	-226.04	-153	168	256	-257	-117	-29	-936	-608	0.395	0.599	1.00	Yes	0.217	0.329	0.55	Yes	0.509	0.401	0.91	Yes	0.478	0.328	0.81	Yes	1.00	**7.03**
		$U_{39} - L_{39}$			126.77	-301.42	-97	95	196	-218	-150	-49	-640	-419	0.228	0.464	0.70	Yes	0.125	0.255	0.39	Yes	0.681	0.310	1	Yes	0.638	0.278	0.92	Yes	1.00	**4.59**
		$U_{40} - L_{40}$			33.76	-329.58	-20	12	232	-232	-129	-59	-57	-128	0.061	0.334	0.40	Yes	0.033	0.184	0.22	Yes	0.747	0.126	0.88	Yes	0.697	0.297	1.00	Yes	1.00	**3.09**
		$U_{41} - L_{41}$			-----	-489.37	27	-33	237	-253	-102	-38	-91	-112	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.102	0.94	Yes	0.767	0.230	1.00	Yes	1.00	**2.95**
		$U_{42} - L_{42}$			-----	-582.57	71	-81	491	-501	-83	-55	59	26	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.080	0.87	Yes	0.742	0.257	1.00	Yes	1.00	**3.32**
		$U_{43} - L_{43}$			-----	-706.70	107	-124	521	-554	-58	-38	460	242	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.145	0.96	Yes	0.757	0.235	1.00	Yes	1.00	**3.54**
		$U_{44} - L_{44}$			-----	-664.35	178	-218	443	-568	-60	-10	666	113	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.201	1	Yes	0.712	0.241	0.96	Yes	1.00	**2.64**
	Structure 3	$U_0 - L_0$			-----	-576.92	-365	457	-98	161	-729	-96	-244	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.228	1	Yes	0.671	0.212	0.89	Yes	1.00	**2.71**
		$U_1 - L_1$			-----	-632.23	-418	453	-104	111	-783	-209	8	-74	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.204	1	Yes	0.736	0.210	0.95	Yes	1.00	**3.65**
		$U_2 - L_2$			-----	-543.93	-389	418	-81	86	-721	-182	92	37	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.189	0.99	Yes	0.757	0.237	1.00	Yes	1.00	**3.79**
		$U_3 - L_3$			-----	-448.13	-192	215	-28	39	-45	171	5	124	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.109	0.95	Yes	0.773	0.218	1.00	Yes	1.00	**3.32**
		$U_4 - L_4$			0.81	-332.75	-216	230	-9	12	-155	189	-74	99	0.001	0.349	0.36	Yes	0.001	0.192	0.20	Yes	0.750	0.102	0.86	Yes	0.704	0.294	1.00	Yes	1.00	**3.93**
		$U_5 - L_5$			49.44	-304.00	-264	277	35	-33	-163	172	-115	23	0.089	0.404	0.50	Yes	0.049	0.222	0.28	Yes	0.681	0.129	0.81	Yes	0.643	0.355	1.00	Yes	1.00	**4.64**
		$U_6 - L_6$			-----	-265.56	34	-37	130	-143	-149	-43	-1391	-232	-----	-----	-----	-----	-----	-----	-----	-----	0.593	0.406	1	Yes	0.562	0.183	0.75	Yes	1.00	**3.53**
		$U_7 - L_7$			-----	-358.27	61	-73	255	-271	-163	-111	-187	-173	-----	-----	-----	-----	-----	-----	-----	-----	0.724	0.148	0.88	Yes	0.686	0.309	1.00	Yes	1.00	**2.38**
		$U_8 - L_8$			-----	-520.31	103	-100	321	-327	-196	-126	-218	-182	-----	-----	-----	-----	-----	-----	-----	-----	0.752	0.124	0.88	Yes	0.714	0.279	1.00	Yes	1.00	**3.04**
		$U_9 - L_9$			-----	-652.88	122	-164	412	-503	-154	-71	57	17	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.098	0.89	Yes	0.760	0.234	1.00	Yes	1.00	**3.07**
		$U_{10} - L_{10}$			-----	-805.00	136	-120	384	-394	47	162	136	179	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.074	0.91	Yes	0.794	0.204	1.00	Yes	1.00	**3.49**
		$U_{11} - L_{11}$			-----	-632.43	185	-216	426	-502	-39	68	-72	294	-----	-----	-----	-----	-----	-----	-----	-----	0.754	0.123	0.88	Yes	0.714	0.279	1.00	Yes	1.00	**2.34**
		$U_{12} - L_{12}$			-----	-1222.25	-263	271	361	-488	-902	-208	837	320	-----	-----	-----	-----	-----	-----	-----	-----	0.882	0.111	1	Yes	0.847	0.091	0.94	Yes	1.00	**4.54**
		$U_{13} - L_{13}$			-----	-449.46	-287	311	-106	117	-162	-137	-140	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.751	0.148	0.9	Yes	0.693	0.306	1.00	Yes	1.00	**2.27**
		$U_{14} - L_{14}$			-----	-550.46	-234	233	-63	59	-275	-211	-163	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.128	0.97	Yes	0.789	0.205	1.00	Yes	1.00	**2.89**
		$U_{15} - L_{15}$			-----	-433.22	-232	242	-51	56	-199	-83	-141	-63	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.114	0.9	Yes	0.747	0.246	1.00	Yes	1.00	**2.43**
		$U_{16} - L_{16}$			-----	-245.22	-168	175	-52	52	-1524	-442	-162	-84	-----	-----	-----	-----	-----	-----	-----	-----	0.539	0.452	1	Yes	0.519	0.223	0.75	Yes	1.00	**2.92**
		$U_{17} - L_{17}$			215.04	-266.23	-205	234	324	-337	-117	88	-283	-320	0.387	0.523	0.91	Yes	0.213	0.288	0.51	Yes	0.583	0.203	0.79	Yes	0.563	0.431	1.00	Yes	1.00	**7.89**
		$U_{18} - L_{18}$			137.07	-301.46	-134	147	239	-283	-108	-40	-282	-182	0.247	0.443	0.69	Yes	0.136	0.244	0.38	Yes	0.659	0.176	0.84	Yes	0.638	0.362	1.00	Yes	1.00	**5.78**
		$U_{19} - L_{19}$			44.94	-322.74	-55	41	245	-247	-169	-95	149	53	0.081	0.365	0.45	Yes	0.044	0.201	0.25	Yes	0.705	0.134	0.84	Yes	0.683	0.316	1.00	Yes	1.00	**3.46**
		$U_{20} - L_{20}$			-----	-333.14	37	-37	162	-229	-224	-72	344	110	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.205	0.95	Yes	0.705	0.293	1.00	Yes	1.00	**2.24**

Moment (End) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Diagonals	Structure 1	$U_0 - L_1$	576.95	-112.71	-117	67	21	-18	-418	-199	-40	-2	0.757	0.241	1.00	Yes	0.457	0.133	0.60	Yes	0.192	0.178	0.38	Yes	0.174	0.136	0.31	Yes	1.00	**4.82**
		$U_1 - L_2$	428.39	-141.10	-100	26	29	-24	-319	-222	-117	-54	0.770	0.220	1.00	Yes	0.424	0.121	0.55	Yes	0.324	0.202	0.53	Yes	0.299	0.127	0.43	Yes	1.00	**5.08**
		$U_2 - L_3$	393.96	-142.72	-113	17	-13	-42	-385	-494	-461	-214	0.709	0.288	1.00	Yes	0.390	0.158	0.55	Yes	0.329	0.293	0.63	Yes	0.302	0.145	0.45	Yes	1.00	**6.77**
		$U_3 - L_4$	75.48	-297.48	57	-3	-97	-131	116	241	-500	-423	0.136	0.312	0.45	Yes	0.075	0.171	0.25	Yes	0.680	0.313	1	Yes	0.629	0.167	0.80	Yes	1.00	**6.38**
		$U_4 - L_4$	541.80	-----	-6	88	-119	-18	360	294	-364	22	0.795	0.205	1.00	Yes	0.437	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.06**
		$U_6 - L_5$	682.09	-----	-150	273	-35	76	190	80	189	96	0.806	0.190	1.00	Yes	0.444	0.105	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.88**
		$U_7 - L_6$	649.16	-----	-281	261	-78	85	371	-25	296	170	0.767	0.228	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.58**
		$U_8 - L_7$	624.93	-----	-62	344	-8	115	310	215	243	175	0.739	0.252	1.00	Yes	0.406	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.74**
		$U_9 - L_9$	905.74	-----	-39	425	-12	142	-669	259	143	135	0.724	0.274	1.00	Yes	0.449	0.155	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.86**
		$U_9 - L_{10}$	1013.73	-----	-289	318	-97	85	330	291	89	104	0.810	0.184	1.00	Yes	0.502	0.103	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.15**
		$U_{10} - L_{11}$	1025.78	-----	-202	259	-74	71	0	-57	-53	-69	0.866	0.129	1.00	Yes	0.536	0.071	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.20**
		$U_{11} - L_{12}$	847.10	-----	-243	160	-79	29	-263	-280	-192	-163	0.838	0.155	1.00	Yes	0.461	0.085	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.73**
		$U_{12} - L_{13}$	619.83	-----	-191	166	-72	51	-357	-329	-229	-195	0.756	0.237	1.00	Yes	0.475	0.134	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.83**
		$U_{13} - L_{14}$	397.91	-----	-92	34	-69	0	-240	-544	-434	-535	0.716	0.276	1.00	Yes	0.394	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.45**
		$U_{15} - L_{14}$	-----	-186.60	2	-26	-59	-195	-75	-176	-1175	5	-----	-----	-----	-----	-----	-----	-----	-----	0.437	0.559	1	Yes	0.395	0.249	0.65	Yes	1.00	**11.19**
		$U_{16} - L_{15}$	402.81	-38.63	-134	92	-5	-12	-354	-352	-33	-75	0.724	0.274	1.00	Yes	0.398	0.151	0.55	Yes	0.092	0.189	0.29	Yes	0.082	0.172	0.26	Yes	1.00	**4.19**
		$U_{17} - L_{16}$	525.18	-----	-155	105	-21	3	-224	-305	-21	-88	0.770	0.228	1.00	Yes	0.424	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.58**
		$U_{18} - L_{17}$	640.67	-----	-341	263	-93	56	-259	-226	4	-43	0.757	0.240	1.00	Yes	0.417	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		$U_{19} - L_{18}$	700.00	-----	-353	260	-100	64	-371	-142	38	0	0.758	0.241	1.00	Yes	0.417	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.59**
		$U_{20} - L_{19}$	680.86	-----	-363	311	-125	103	-456	-80	0	28	0.737	0.261	1.00	Yes	0.406	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
	Structure 2	$U_0 - L_1$	752.25	-----	-380	367	-47	57	-495	-156	-126	61	0.744	0.251	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		$U_1 - L_2$	738.94	-----	-370	285	-66	41	-628	-254	60	20	0.731	0.266	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.34**
		$U_2 - L_3$	610.18	-----	-337	256	-38	26	-470	-182	-62	-186	0.721	0.276	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.34**
		$U_3 - L_4$	555.24	-----	-185	133	-9	-3	-395	-426	-237	-223	0.740	0.258	1.00	Yes	0.407	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		$U_4 - L_5$	390.72	-77.51	-132	87	18	-25	-428	-397	-142	-88	0.703	0.292	1.00	Yes	0.387	0.161	0.55	Yes	0.191	0.225	0.42	Yes	0.164	0.169	0.34	Yes	1.00	**4.07**
		$U_5 - L_6$	357.41	-143.68	-126	61	24	-65	-602	-455	-643	-318	0.643	0.348	1.00	Yes	0.354	0.191	0.55	Yes	0.339	0.315	0.66	Yes	0.304	0.162	0.47	Yes	1.00	**5.68**
		$U_6 - L_7$	-----	-337.49	10	-31	41	-91	-214	-171	-542	-363	-----	-----	-----	-----	-----	-----	-----	-----	0.723	0.276	1	Yes	0.647	0.104	0.76	Yes	1.00	**4.48**
		$U_8 - L_7$	540.83	-----	-168	144	-193	44	74	-194	-665	46	0.690	0.308	1.00	Yes	0.434	0.176	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.21**
		$U_8 - L_8$	693.34	-----	-335	236	-125	89	-283	-432	17	-69	0.751	0.242	1.00	Yes	0.413	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.31**
		$U_{10} - L_9$	768.89	-----	-320	197	-115	96	-34	-555	46	-19	0.761	0.231	1.00	Yes	0.418	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.91**
		$U_{11} - L_{10}$	899.13	-----	-376	305	-132	123	-44	-85	145	35	0.819	0.179	1.00	Yes	0.450	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.39**
		$U_{12} - L_{11}$	887.45	-----	-351	354	-141	150	257	163	215	115	0.808	0.185	1.00	Yes	0.445	0.102	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.46**
		$U_{13} - L_{12}$	754.79	-----	-429	391	-180	173	348	203	351	183	0.747	0.252	1.00	Yes	0.411	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.22**
		$U_{14} - L_{13}$	721.34	-----	-214	448	-29	193	381	-183	467	163	0.714	0.278	1.00	Yes	0.392	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.70**
		$U_{14} - L_{15}$	610.31	-----	-144	409	56	76	249	165	30	-20	0.722	0.277	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.57**
		$U_{15} - L_{16}$	631.31	-----	-379	352	-67	72	195	173	9	34	0.746	0.250	1.00	Yes	0.411	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.75**
		$U_{16} - L_{17}$	726.21	-----	-324	383	-52	105	99	77	-6	14	0.787	0.212	1.00	Yes	0.433	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.65**
		$U_{17} - L_{18}$	691.01	-----	-310	305	-53	104	-1	-5	-27	6	0.817	0.180	1.00	Yes	0.449	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.57**
		$U_{18} - L_{19}$	565.48	-----	-268	270	-72	90	-966	-67	-74	-59	0.669	0.328	1.00	Yes	0.368	0.180	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.28**
		$U_{19} - L_{20}$	580.21	-----	-212	183	-43	52	-345	-308	-116	-68	0.740	0.260	1.00	Yes	0.407	0.147	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.12**
		$U_{20} - L_{21}$	412.50	-----	-118	104	-39	22	-315	-258	-342	-212	0.742	0.249	1.00	Yes	0.408	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.20**
		$U_{21} - L_{22}$	321.12	-181.33	-121	53	-6	-69	-380	-392	-920	-624	0.578	0.422	1.00	Yes	0.318	0.232	0.55	Yes	0.428	0.411	0.84	Yes	0.384	0.155	0.54	Yes	1.00	**9.03**
		$U_{23} - L_{22}$	349.16	-----	-112	60	-114	-56	136	-300	-773	-51	0.628	0.369	1.00	Yes	0.345	0.203	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.94**
		$U_{24} - L_{23}$	433.26	-----	-124	105	-22	21	-171	-206	46	-16	0.779	0.218	1.00	Yes	0.429	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		$U_{25} - L_{24}$	595.40	-----	-218	183	-38	45	-113	-215	103	21	0.759	0.239	1.00	Yes	0.418	0.134	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.34**
		$U_{26} - L_{25}$	674.72	-----	-297	269	-72	85	-17	-96	138	63	0.798	0.193	1.00	Yes	0.439	0.106	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.66**
		$U_{27} - L_{26}$	663.41	-----	-294	287	-90	104	230	102	185	82	0.784	0.208	1.00	Yes	0.431	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.34**
		$U_{28} - L_{27}$	700.75	-----	-316	370	-78	125	271	177	262	179	0.759	0.234	1.00	Yes	0.417	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.41**
		$U_{29} - L_{28}$	617.23	-----	-362	332	-116	114	334	-83	303	143	0.730	0.266	1.00	Yes	0.401	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.17**
		$U_{30} - L_{29}$	595.33	-----	-156	379	8	133	263	152	401	111	0.704	0.287	1.00	Yes	0.387	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.76**
		$U_{30} - L_{31}$	735.90	-----	-197	494	19	129	281	166	124	34	0.728	0.271	1.00	Yes	0.400	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.46**
		$U_{31} - L_{32}$	768.94	-----	-448	403	-122	124	179	144	53	61	0.761	0.235	1.00	Yes	0.418	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.70**
		$U_{32} - L_{33}$	914.19	-----	-358	363	-116	129	26	32	-50	-42	0.833	0.161	1.00	Yes	0.458	0.088	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.88**
		$U_{33} - L_{34}$	749.91	-----	-323	319	-112	107	-1295	-319	-158	-128	0.683	0.314	1.00	Yes	0.376	0.173	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.65**
		$U_{34} - L_{35}$	818.46	-----	-271	241	-101	90	-367	255	-193	-171	0.810	0.180	1.00	Yes	0.445	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.13**
		$U_{35} - L_{36}$	677.56	-----	-333	235	-117	88	-546	-441	-245	-186	0.734	0.260	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.55**
		$U_{36} - L_{37}$	592.88	-----	-192	158	-59	55	-314	-345	-215	-206	0.756	0.242	1.00	Yes	0.476	0.137	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.39**
		$U_{38} - L_{37}$	-----	-266.30	16	-34	-18	-136	-52	-135	-878	28	-----	-----	-----	-----	-----	-----	-----	-----	0.575	0.419	1	Yes	0.510	0.155	0.67	Yes	1.00	**7.24**
		$U_{39} - L_{38}$	389.03	-225.25	-126	63	69	-66	-255	-478	78	8	0.700	0.299	1.00	Yes	0.385	0.165	0.55	Yes	0.537	0.231	0.77	Yes	0.477	0.161	0.64	Yes	1.00	**5.54**
		$U_{40} - L_{39}$	402.60	-117.33	-134	91	29	-35	-194	-348	39	0	0.724	0.272	1.00	Yes	0.398	0.149	0.55	Yes	0.281	0.184	0.47	Yes	0.248	0.171	0.42	Yes	1.00	**4.23**
		$U_{41} - L_{40}$	584.50	-----	-190	140	-13	-5	-170	-187	27	-5	0.779	0.212	1.00	Yes	0.429	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.23**
		$U_{42} - L_{41}$	653.21	-----	-347	271	-51	30	-123	-151	-5	2	0.772	0.224	1.00	Yes	0.425	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.32**
		$U_{43} - L_{42}$	771.71	-----	-388	309	-72	45	-323	-87	-18	-44	0.763	0.228	1.00	Yes	0.420	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		$U_{44} - L_{43}$	772.07	-----	-377	368	-124	105	-405	-19	34	-11	0.764	0.235	1.00	Yes	0.420	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.50**
	Structure 3	$U_0 - L_1$	658.76	-----	-372	310	-64	67	-570	-185	-137	43	0.714	0.284	1.00	Yes	0.392	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.56**
		$U_1 - L_2$	661.67	-----	-331	234	-85	52	-685	-273	35	10	0.717	0.282	1.00	Yes	0.394	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_2 - L_3$	626.87	-----	-333	251	-67	39	-281	-338	-75	-172	0.741	0.250	1.00	Yes	0.408	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.13**
		$U_3 - L_4$	506.97	-----	-151	104	-15	3	-419	-398	-217	-204	0.743	0.251	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.63**
		$U_4 - L_5$	383.25	-26.76	-127	91	-6	-8	-509	-402	-194	-132	0.689	0.310	1.00	Yes	0.379	0.170	0.55	Yes	0.063	0.226	0.29	Yes	0.057	0.162	0.22	Yes	1.00	**3.97**
		$U_5 - L_6$	-----	-75.19	0	-24	-97	-201	-240	-199	-1568	-1762	-----	-----	-----	-----	-----	-----	-----	-----	0.176	0.819	1	Yes	0.159	0.257	0.42	Yes	1.00	**12.68**
		$U_7 - L_6$	438.05	-----	-98	32	-68	-7	-81	-199	-296	-158	0.788	0.211	1.00	Yes	0.433	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.95**
		$U_8 - L_7$	640.94	-----	-196	171	-66	46	-164	-230	-29	-86	0.781	0.216	1.00	Yes	0.492	0.121	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.01**
		$U_8 - L_8$	862.33	-----	-254	170	-77	27	-13	-162	56	-40	0.853	0.142	1.00	Yes	0.469	0.078	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.81**
		$U_{10} - L_9$	1023.23	-----	-216	248	-74	68	150	42	137	56	0.864	0.134	1.00	Yes	0.535	0.075	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.83**
		$U_{11} - L_{10}$	996.31	-----	-294	310	-101	87	458	344	307	197	0.796	0.197	1.00	Yes	0.493	0.111	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.61**
		$U_{12} - L_{11}$	907.87	-----	-48	410	-16	142	-672	322	293	217	0.726	0.268	1.00	Yes	0.450	0.151	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.46**
		$U_{12} - L_{13}$	629.97	-----	-46	357	-4	107	258	195	114	92	0.745	0.250	1.00	Yes	0.410	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.39**
		$U_{13} - L_{14}$	661.87	-----	-283	290	-71	76	235	211	91	114	0.783	0.208	1.00	Yes	0.430	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.28**
		$U_{14} - L_{15}$	703.68	-----	-151	278	-31	69	45	5	37	14	0.832	0.167	1.00	Yes	0.458	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.16**
		$U_{15} - L_{16}$	498.24	-----	-3	85	-110	-17	210	250	-547	-641	0.731	0.261	1.00	Yes	0.402	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.64**
		$U_{17} - L_{16}$	-----	-318.53	56	-5	-36	-120	259	278	-501	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.265	1	Yes	0.674	0.154	0.83	Yes	1.00	**5.95**
		$U_{18} - L_{17}$	263.05	-155.26	-76	13	-54	-45	144	-431	-1466	-18	0.473	0.522	1.00	Yes	0.260	0.287	0.55	Yes	0.357	0.440	0.8	Yes	0.329	0.098	0.43	Yes	1.00	**5.44**
		$U_{19} - L_{18}$	444.28	-135.36	-100	27	34	-28	-224	-196	-120	-90	0.799	0.192	1.00	Yes	0.439	0.106	0.55	Yes	0.310	0.150	0.47	Yes	0.286	0.127	0.42	Yes	1.00	**5.19**
		$U_{20} - L_{19}$	617.59	-70.14	-78	64	-20	-1	-379	-196	31	-19	0.810	0.187	1.00	Yes	0.489	0.103	0.60	Yes	0.120	0.142	0.27	Yes	0.108	0.092	0.20	Yes	1.00	**4.01**

Moment (End) AB Inventory

Inventory Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
South Truss - Upper Chord	Structure 1	U_0 - U_1	74.11	-578.83	-231	185	871	-915	-167	227	676	-851	0.085	0.361	0.45	Yes	0.058	0.247	0.31	Yes	0.788	0.123	0.92	Yes	0.781	0.218	1.00	Yes	1.00	**6.50**
		U_1 - U_2	59.70	-510.36	-95	134	-322	-704	-165	159	-81	-508	0.068	0.253	0.33	Yes	0.047	0.173	0.23	Yes	0.694	0.299	1	Yes	0.688	0.167	0.86	Yes	1.00	**2.85**
		U_2 - U_3	283.30	-581.45	-48	408	-760	-198	-126	188	563	-614	0.325	0.284	0.61	Yes	0.219	0.187	0.41	Yes	0.791	0.205	1	Yes	0.784	0.181	0.97	Yes	1.00	**3.88**
		U_3 - U_4	710.95	-451.52	257	571	-417	-365	-256	7	-206	-213	0.815	0.179	1.00	Yes	0.559	0.123	0.69	Yes	0.614	0.164	0.78	Yes	0.609	0.136	0.75	Yes	1.00	**5.78**
		U_4 - U_5	687.49	-550.57	309	535	-615	-165	-116	7	-366	-168	0.788	0.208	1.00	Yes	0.541	0.142	0.69	Yes	0.749	0.207	0.96	Yes	0.742	0.146	0.89	Yes	1.00	**5.53**
		U_5 - U_6	652.94	-----	-102	828	-100	184	-268	80	-303	-206	0.748	0.248	1.00	Yes	0.505	0.162	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.68**
		U_6 - U_7	921.12	-----	274	240	35	53	-1	421	69	-86	0.881	0.116	1.00	Yes	0.616	0.080	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.27**
		U_7 - U_8	1005.00	-----	-223	1533	12	765	338	688	543	589	0.696	0.302	1.00	Yes	0.486	0.207	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.67**
		U_8 - U_9	760.27	-----	1104	-173	1676	-798	243	445	739	-227	0.623	0.372	1.00	Yes	0.426	0.253	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.32**
		U_9 - U_{10}	687.69	-242.01	248	289	292	-707	1	304	567	-539	0.746	0.250	1.00	Yes	0.505	0.167	0.68	Yes	0.312	0.125	0.44	Yes	0.309	0.158	0.47	Yes	1.00	**7.07**
		U_{10} - U_{11}	68.32	-638.21	248	-173	192	-795	45	110	227	-459	0.074	0.252	0.33	Yes	0.049	0.163	0.22	Yes	0.822	0.139	0.97	Yes	0.814	0.178	1.00	Yes	1.00	**3.21**
		U_{11} - U_{12}	-----	-915.39	139	-217	-16	-803	12	93	80	-230	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.126	1	Yes	0.859	0.133	1.00	Yes	1.00	**2.10**
		U_{12} - U_{13}	-----	-1271.88	-58	-271	-499	-600	75	4	734	-464	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.135	1	Yes	0.850	0.083	0.94	Yes	1.00	**2.54**
		U_{13} - U_{14}	-----	-1425.92	-178	-486	-541	-1255	-48	-9	-72	-56	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.168	1	Yes	0.817	0.138	0.96	Yes	1.00	**3.29**
		U_{14} - U_{15}	-----	-1425.82	-405	-291	-1056	-669	35	-277	-172	-277	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.165	1	Yes	0.817	0.117	0.94	Yes	1.00	**2.57**
		U_{15} - U_{16}	-----	-1476.10	-260	-430	-734	-772	-37	-251	-318	-280	-----	-----	-----	-----	-----	-----	-----	-----	0.855	0.138	1	Yes	0.846	0.085	0.94	Yes	1.00	**2.95**
		U_{16} - U_{17}	-----	-1419.07	-371	-189	-1013	-453	26	-202	37	-217	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.176	1	Yes	0.814	0.112	0.93	Yes	1.00	**3.99**
		U_{17} - U_{18}	-----	-1104.09	-686	9	-255	-60	-228	-126	-130	73	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.120	1	Yes	0.864	0.112	0.98	Yes	1.00	**3.55**
		U_{18} - U_{19}	-----	-705.34	-656	116	-371	-54	-55	-168	571	-140	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.199	1	Yes	0.794	0.132	0.93	Yes	1.00	**3.27**
		U_{19} - U_{20}	-----	-698.92	-1036	841	-912	-377	31	-280	-85	175	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.189	0.99	Yes	0.786	0.208	1.00	Yes	1.00	**11.76**
	Structure 2	U_0 - U_1	-----	-542.84	126	-210	2073	-1759	-30	55	1277	-510	-----	-----	-----	-----	-----	-----	-----	-----	0.645	0.243	0.89	Yes	0.641	0.352	1.00	Yes	1.00	**6.10**
		U_1 - U_2	-----	-851.61	-150	-280	-242	-920	-39	59	267	-351	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.165	1	Yes	0.822	0.140	0.97	Yes	1.00	**3.13**
		U_2 - U_3	-----	-1193.19	-146	-382	-108	-1128	-34	-33	137	-613	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.144	1	Yes	0.847	0.115	0.97	Yes	1.00	**2.77**
		U_3 - U_4	-----	-1431.57	-517	-500	-896	-1288	-122	-25	-8	-345	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.176	1	Yes	0.815	0.115	0.93	Yes	1.00	**2.35**
		U_4 - U_5	-----	-1563.97	-565	-509	-1109	-1391	-130	-71	11	-622	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.189	1	Yes	0.803	0.115	0.92	Yes	1.00	**2.31**
		U_5 - U_6	-----	-1612.63	-546	50	-1262	-837	-197	-38	-220	-440	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.157	1	Yes	0.828	0.105	0.94	Yes	1.00	**2.30**
		U_6 - U_7	-----	-1408.04	-297	-194	-1078	-1235	-170	-88	-188	-328	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.189	1	Yes	0.802	0.110	0.92	Yes	1.00	**2.12**
		U_7 - U_8	-----	-1405.81	-334	-181	-1390	-868	-79	-174	-262	-379	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.189	1	Yes	0.800	0.124	0.93	Yes	1.00	**2.13**
		U_8 - U_9	-----	-1229.02	-323	242	-1214	-311	-15	-193	-251	-309	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.153	1	Yes	0.834	0.129	0.97	Yes	1.00	**2.47**
		U_9 - U_{10}	819.69	-854.71	257	917	-984	-198	-94	-158	-304	-863	0.601	0.213	0.82	Yes	0.407	0.144	0.56	Yes	0.742	0.251	1	Yes	0.738	0.120	0.86	Yes	1.00	**5.68**
		U_{10} - U_{11}	944.76	-396.45	443	688	-738	-83	-209	-99	-603	-754	0.798	0.196	1.00	Yes	0.543	0.130	0.68	Yes	0.396	0.234	0.64	Yes	0.394	0.104	0.50	Yes	1.00	**4.77**
		U_{11} - U_{12}	925.27	-----	-447	995	-557	230	-389	-182	-611	-583	0.782	0.215	1.00	Yes	0.525	0.143	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.51**
		U_{12} - U_{13}	1218.09	-----	762	201	-653	-323	212	700	-626	-771	0.823	0.169	1.00	Yes	0.586	0.117	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.80**
		U_{13} - U_{14}	1292.13	-----	-565	3154	-218	1807	412	983	543	772	0.635	0.359	1.00	Yes	0.450	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.05**
		U_{14} - U_{15}	1254.21	-----	2495	-61	3317	-698	426	594	1022	235	0.617	0.377	1.00	Yes	0.437	0.248	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.56**
		U_{15} - U_{16}	1465.37	-----	49	424	66	-661	93	393	273	-310	0.886	0.108	1.00	Yes	0.630	0.073	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.83**
		U_{16} - U_{17}	1151.53	-----	598	305	734	-677	-83	325	290	-562	0.849	0.151	1.00	Yes	0.565	0.099	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.73**
		U_{17} - U_{18}	832.51	-124.87	433	343	363	-701	-105	285	149	-200	0.836	0.161	1.00	Yes	0.556	0.106	0.67	Yes	0.148	0.140	0.29	Yes	0.147	0.119	0.27	Yes	1.00	**3.62**
		U_{18} - U_{19}	779.96	-668.05	560	318	197	-750	-59	183	288	-600	0.783	0.215	1.00	Yes	0.514	0.138	0.66	Yes	0.794	0.139	0.94	Yes	0.789	0.127	0.92	Yes	1.00	**4.26**
		U_{19} - U_{20}	400.26	-730.03	277	176	-214	-936	-108	128	-51	-389	0.375	0.202	0.58	Yes	0.249	0.133	0.39	Yes	0.811	0.189	1	Yes	0.805	0.150	0.96	Yes	1.00	**2.78**
		U_{20} - U_{21}	348.15	-894.51	156	80	-763	-514	-69	48	580	-508	0.270	0.174	0.45	Yes	0.189	0.115	0.31	Yes	0.822	0.171	1	Yes	0.816	0.111	0.93	Yes	1.00	**2.98**
		U_{21} - U_{22}	447.39	-848.17	97	169	-605	-998	-199	-40	-35	-56	0.347	0.166	0.52	Yes	0.246	0.111	0.36	Yes	0.780	0.212	1	Yes	0.774	0.145	0.92	Yes	1.00	**3.76**
		U_{22} - U_{23}	293.77	-868.95	87	17	-873	-643	-92	-139	-194	-185	0.228	0.148	0.38	Yes	0.162	0.099	0.27	Yes	0.799	0.195	1	Yes	0.793	0.127	0.92	Yes	1.00	**2.86**
		U_{23} - U_{24}	752.28	-858.20	310	339	-908	-618	19	-9	-701	557	0.584	0.208	0.80	Yes	0.409	0.137	0.55	Yes	0.789	0.208	1	Yes	0.783	0.132	0.92	Yes	1.00	**5.52**
		U_{24} - U_{25}	880.07	-679.91	470	499	-743	-268	29	-9	-355	-78	0.825	0.167	1.00	Yes	0.547	0.109	0.66	Yes	0.755	0.140	0.9	Yes	0.750	0.119	0.87	Yes	1.00	**5.98**
		U_{25} - U_{26}	-----	-484.73	-1556	2417	-1293	-727	-1420	-178	-466	-1382	-----	-----	-----	-----	-----	-----	-----	-----	0.576	0.418	1	Yes	0.572	0.410	0.99	Yes	1.00	**19.44**
		U_{26} - U_{27}	725.67	-----	-438	910	-520	97	-784	70	-358	-634	0.728	0.269	1.00	Yes	0.485	0.178	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.37**
		U_{27} - U_{28}	1106.75	-----	-322	1153	-227	360	-199	-35	-220	-301	0.816	0.176	1.00	Yes	0.543	0.116	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.48**
		U_{28} - U_{29}	1235.24	-----	1091	332	-640	-259	829	1453	-746	-820	0.747	0.247	1.00	Yes	0.531	0.170	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.44**
		U_{29} - U_{30}	1293.74	-----	-326	3090	-8	1718	527	1054	809	1032	0.636	0.358	1.00	Yes	0.450	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.98**
		U_{30} - U_{31}	1268.57	-----	2435	-290	3444	-950	608	552	773	95	0.624	0.372	1.00	Yes	0.442	0.244	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.36**
		U_{31} - U_{32}	1302.54	-----	92	408	-204	-570	198	397	478	-228	0.880	0.117	1.00	Yes	0.627	0.081	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.36**
		U_{32} - U_{33}	942.45	-214.68	632	195	439	-867	16	240	323	-593	0.796	0.195	1.00	Yes	0.535	0.130	0.67	Yes	0.215	0.105	0.32	Yes	0.213	0.122	0.34	Yes	1.00	**3.83**
		U_{33} - U_{34}	700.40	-846.97	524	216	-25	-1101	-18	229	287	-315	0.592	0.194	0.79	Yes	0.403	0.126	0.53	Yes	0.847	0.142	0.99	Yes	0.842	0.155	1.00	Yes	1.00	**4.02**
		U_{34} - U_{35}	125.32	-999.52	407	-174	-82	-1065	46	46	246	-452	0.092	0.179	0.28	Yes	0.062	0.121	0.19	Yes	0.868	0.126	1	Yes	0.863	0.130	1.00	Yes	1.00	**2.53**
		U_{35} - U_{36}	-----	-1263.78	113	-452	-321	-1090	-15	93	78	-215	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.130	1	Yes	0.857	0.116	0.98	Yes	1.00	**2.09**
		U_{36} - U_{37}	-----	-1443.21	-284	-307	-878	-1290	-18	-118	11	-256	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.169	1	Yes	0.822	0.115	0.94	Yes	1.00	**1.93**
		U_{37} - U_{38}	-----	-1425.03	-197	-421	-1180	-1062	-94	-195	-171	-340	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.177	1	Yes	0.811	0.105	0.92	Yes	1.00	**1.88**
		U_{38} - U_{39}	-----	-1640.48	-125	-615	-939	-1213	13	-201	-228	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.148	1	Yes	0.842	0.101	0.95	Yes	1.00	**2.22**
		U_{39} - U_{40}	-----	-1585.45	-617	-514	-1415	-929	26	-104	-287	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.173	1	Yes	0.814	0.117	0.94	Yes	1.00	**2.33**
		U_{40} - U_{41}	-----	-1460.02	-494	-482	-1168	-818	106	-149	-108	-191	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.153	1	Yes	0.831	0.104	0.94	Yes	1.00	**2.53**
		U_{41} - U_{42}	-----	-1236.68	-1107	-38	-891	-143	-109	-101	-130	-108	-----	-----	-----	-----	-----	-----	-----	-----	0.883	0.114	1	Yes	0.878	0.113	1.00	Yes	1.00	**3.16**
		U_{42} - U_{43}	-----	-874.17	-888	69	-444	-57	-168	-233	458	-173	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.141	1	Yes	0.844	0.135	0.98	Yes	1.00	**3.56**
		U_{43} - U_{44}	-----	-636.58	-592	257	-860	-593	0	-207	-13	173	-----	-----	-----	-----	-----	-----	-----	-----	0.756	0.237	1	Yes	0.752	0.146	0.90	Yes	1.00	**11.74**
	Structure 3	U_0 - U_1	-----	-537.03	362	-293	1940	-1479	78	77	1325	-847	-----	-----	-----	-----	-----	-----	-----	-----	0.610	0.292	0.91	Yes	0.604	0.390	1.00	Yes	1.00	**7.44**
		U_1 - U_2	-----	-732.94	-81	-222	-68	-701	-21	12	190	-338	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.164	1	Yes	0.825	0.141	0.97	Yes	1.00	**3.02**
		U_2 - U_3	-----	-1089.34	-53	-237	35	-599	-29	-47	144	-695	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.133	1	Yes	0.852	0.097	0.95	Yes	1.00	**2.88**
		U_3 - U_4	-----	-1373.05	-219	-371	-458	-1278	-101	-37	-214	-561	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.201	1	Yes	0.787	0.141	0.93	Yes	1.00	**2.67**
		U_4 - U_5	-----	-1433.31	-438	-143	-1078	-473	-89	-49	537	-636	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.163	1	Yes	0.822	0.119	0.95	Yes	1.00	**2.64**
		U_5 - U_6	-----	-1367.92	-238	-347	-646	-1174	-177	-139	-228	-171	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.198	1	Yes	0.784	0.130	0.92	Yes	1.00	**3.43**
		U_6 - U_7	-----	-1399.94	-493	-157	-1229	-513	-121	-300	-261	-365	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.182	1	Yes	0.803	0.136	0.94	Yes	1.00	**2.76**
		U_7 - U_8	-----	-1219.31	-237	24	-702	-206	-106	-333	-368	-487	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.169	1	Yes	0.814	0.097	0.92	Yes	1.00	**3.06**
		U_8 - U_9	96.85	-768.68	0	399	-692	-9	-255	-172	-648	-768	0.077	0.207	0.29	Yes	0.052	0.138	0.20	Yes	0.728	0.264	1	Yes	0.721	0.115	0.84	Yes	1.00	**6.31**
		U_9 - U_{10}	-----	-400.00	-2144	1707	-900	65	-1371	-369	-1406	-999	-----	-----	-----	-----	-----	-----	-----	-----	0.515	0.454	0.97	Yes	0.510	0.480	1.00	Yes	1.00	**21.61**
		U_{10} - U_{11}	709.63	-----	-22	478	30	109	-724	314	-30	-69	0.770	0.224	1.00	Yes	0.521	0.150	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.76**
		U_{11} - U_{12}	830.79	-----	-452	1466	-163	758	-31	509	387	547	0.681	0.313	1.00	Yes	0.466	0.213	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.72**
		U_{12} - U_{13}	1000.94	-----	1201	-9	1682	-583	65	460	375	-117	0.694	0.302	1.00	Yes	0.484	0.206	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.69**
		U_{13} - U_{14}	854.24	-----	218	362	13	-462	-98	372	-37	-562	0.817	0.176	1.00	Yes	0.571	0.121	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.07**
		U_{14} - U_{15}	641.42	-279.47	456	224	25	-367	-55	261	907	-613	0.735	0.262	1.00	Yes	0.496	0.174	0.67	Yes	0.380	0.177	0.56	Yes	0.377	0.108	0.49	Yes	1.00	**4.22**
		U_{15} - U_{16}	602.20	-607.56	459	291	-212	-697	-68	316	14	67	0.690	0.219	0.91	Yes	0.474	0.150	0.63	Yes	0.827	0.164	1	Yes	0.819	0.166	0.99	Yes	1.00	**5.99**
		U_{16} - U_{17}	509.66	-648.02	482	124	-405	-530	235	-28	76	-140	0.584	0.166	0.75	Yes	0.401	0.114	0.52	Yes	0.882	0.094	0.98	Yes	0.874	0.126	1.00	Yes	1.00	**5.16**
		U_{17} - U_{18}	211.54	-641.81	333	-145	-408	-528	87	54	-47	-86	0.242	0.140	0.39	Yes	0.164	0.091	0.26	Yes	0.873	0.090	0.97	Yes	0.865	0.125	1.00	Yes	1.00	**4.26**
		U_{18} - U_{19}	169.62	-519.15	178	-47	-529	-229	247	-180	676	-488	0.194	0.240	0.44	Yes	0.133	0.164	0.30	Yes	0.706	0.286	1	Yes	0.700	0.126	0.83	Yes	1.00	**7.58**
		U_{19} - U_{20}	-----	-544.11	-284	122	-495	-804	-224	-153	-180	-52	-----	-----	-----	-----	-----	-----	-----	-----	0.740	0.259	1	Yes	0.734	0.191	0.93	Yes	1.00	**11.19**

Moment (End) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
South Truss - Lower Chord	Structure 1	L_0 - L_1	26.36	-206.07	-287	155	645	-1085	62	229	-515	-1894	0.040	0.732	0.78	Yes	0.024	0.436	0.46	Yes	0.374	0.621	1	Yes	0.371	0.326	0.70	Yes	1.00	**18.37**
		L_1 - L_2	377.68	-50.16	-20	62	87	-795	396	-180	-813	464	0.578	0.413	1.00	Yes	0.353	0.269	0.63	Yes	0.091	0.237	0.33	Yes	0.090	0.239	0.33	Yes	1.00	**3.94**
		L_2 - L_3	639.76	-171.66	-10	110	-732	-509	-194	133	209	-513	0.736	0.259	1.00	Yes	0.426	0.154	0.58	Yes	0.235	0.232	0.47	Yes	0.232	0.177	0.41	Yes	1.00	**3.62**
		L_3 - L_4	665.88	-402.79	49	441	-537	-350	347	-280	-639	287	0.766	0.232	1.00	Yes	0.455	0.146	0.61	Yes	0.550	0.148	0.7	Yes	0.545	0.130	0.68	Yes	1.00	**4.34**
		L_4 - L_5	-----	-548.51	-119	606	-289	284	331	-39	-227	217	-----	-----	-----	-----	-----	-----	-----	-----	0.843	0.146	0.99	Yes	0.836	0.161	1.00	Yes	1.00	**4.15**
		L_5 - L_6	-----	-736.49	14	662	-40	316	70	-197	53	-237	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.133	1	Yes	0.850	0.146	1.00	Yes	1.00	**2.64**
		L_6 - L_7	-----	-1175.28	-184	212	235	-99	-24	385	-253	238	-----	-----	-----	-----	-----	-----	-----	-----	0.957	0.043	1	Yes	0.946	0.037	0.99	Yes	1.00	**3.59**
		L_7 - L_8	-----	-1228.26	-67	1295	-30	707	352	555	404	267	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.208	1	Yes	0.778	0.172	0.95	Yes	1.00	**2.25**
		L_8 - L_9	-----	-1255.24	928	-21	1222	-106	219	315	531	236	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.194	1	Yes	0.795	0.162	0.96	Yes	1.00	**2.80**
		L_9 - L_{10}	-----	-1091.56	138	70	725	-767	385	-251	-491	358	-----	-----	-----	-----	-----	-----	-----	-----	0.888	0.061	0.95	Yes	0.879	0.121	1.00	Yes	1.00	**6.70**
		L_{10} - L_{11}	-----	-532.16	494	-56	330	-714	-289	41	-150	-202	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.129	0.95	Yes	0.811	0.189	1.00	Yes	1.00	**5.48**
		L_{11} - L_{12}	516.62	-86.88	345	-238	326	-850	132	-87	-564	501	0.669	0.324	1.00	Yes	0.401	0.209	0.62	Yes	0.134	0.136	0.27	Yes	0.132	0.225	0.36	Yes	1.00	**3.44**
		L_{12} - L_{13}	1058.04	-----	45	-161	-425	-546	-157	122	-49	-502	0.835	0.156	1.00	Yes	0.534	0.095	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.20**
		L_{13} - L_{14}	1319.58	-----	181	-527	-105	-1233	147	18	-545	452	0.776	0.215	1.00	Yes	0.503	0.133	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.15**
		L_{14} - L_{15}	1604.67	-----	-567	-152	-1484	-407	-148	163	449	18	0.784	0.210	1.00	Yes	0.509	0.128	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.81**
		L_{15} - L_{16}	1738.09	-----	-302	-361	-929	-1043	117	-132	-2	339	0.849	0.150	1.00	Yes	0.545	0.088	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.37**
		L_{16} - L_{17}	1289.09	-----	-1076	118	-450	25	231	-139	-146	118	0.815	0.178	1.00	Yes	0.529	0.110	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.00**
		L_{17} - L_{18}	966.62	-----	-605	86	-375	-39	-246	-151	-99	-292	0.842	0.154	1.00	Yes	0.539	0.093	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.22**
		L_{18} - L_{19}	460.44	-----	-862	471	-270	197	6	-91	-155	152	0.705	0.291	1.00	Yes	0.477	0.181	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.09**
		L_{19} - L_{20}	75.44	-294.90	-1546	1033	-151	52	-78	-17	139	31	0.115	0.493	0.61	Yes	0.070	0.334	0.41	Yes	0.536	0.246	0.79	Yes	0.531	0.464	1.00	Yes	1.00	**15.97**
	Structure 2	L_0 - L_1	70.34	-430.40	-98	-51	512	-1712	36	124	-278	-966	0.085	0.507	0.60	Yes	0.051	0.321	0.38	Yes	0.619	0.373	1	Yes	0.615	0.348	0.97	Yes	1.00	**11.79**
		L_1 - L_2	450.38	-----	125	-232	596	-1477	169	-114	-890	727	0.547	0.447	1.00	Yes	0.325	0.282	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.78**
		L_2 - L_3	1042.04	-----	-77	-213	93	-972	-80	143	294	-124	0.821	0.172	1.00	Yes	0.539	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.81**
		L_3 - L_4	1355.99	-----	-27	-449	-7	-1391	190	-33	-401	489	0.797	0.202	1.00	Yes	0.536	0.126	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.70**
		L_4 - L_5	1809.27	-----	-416	-346	-1092	-1237	-96	157	507	83	0.843	0.151	1.00	Yes	0.558	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		L_5 - L_6	1886.75	-----	-204	-419	-725	-1749	197	-96	-141	471	0.810	0.184	1.00	Yes	0.543	0.113	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.27**
		L_6 - L_7	1894.27	-----	-526	-174	-1809	-1374	-160	221	360	-560	0.802	0.194	1.00	Yes	0.533	0.115	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.95**
		L_7 - L_8	1396.41	-62.42	-287	418	-1347	-412	227	-137	-604	339	0.801	0.198	1.00	Yes	0.526	0.119	0.65	Yes	0.042	0.147	0.19	Yes	0.042	0.149	0.20	Yes	1.00	**2.82**
		L_8 - L_9	1110.96	-1054.67	248	846	-950	158	-50	218	-35	46	0.777	0.149	0.93	Yes	0.523	0.093	0.62	Yes	0.874	0.069	0.95	Yes	0.868	0.128	1.00	Yes	1.00	**6.28**
		L_9 - L_{10}	459.21	-819.27	-107	868	-595	57	138	-174	-128	-124	0.410	0.160	0.57	Yes	0.239	0.099	0.34	Yes	0.866	0.072	0.94	Yes	0.860	0.139	1.00	Yes	1.00	**3.75**
		L_{10} - L_{11}	76.43	-725.19	-355	810	-563	433	400	54	-174	-224	0.076	0.195	0.28	Yes	0.045	0.121	0.17	Yes	0.857	0.105	0.97	Yes	0.852	0.142	1.00	Yes	1.00	**3.28**
		L_{11} - L_{12}	-----	-1007.09	-331	1269	-368	661	111	-279	-163	-576	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.152	0.99	Yes	0.826	0.173	1.00	Yes	1.00	**2.25**
		L_{12} - L_{13}	-----	-1498.27	-489	-218	172	-848	7	259	-357	35	-----	-----	-----	-----	-----	-----	-----	-----	0.904	0.087	1	Yes	0.896	0.084	0.99	Yes	1.00	**3.44**
		L_{13} - L_{14}	-----	-1512.37	-951	2725	-530	1552	188	373	510	467	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.192	0.96	Yes	0.761	0.238	1.00	Yes	1.00	**1.92**
		L_{14} - L_{15}	-----	-1517.25	1623	-529	2688	-896	359	305	380	222	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.179	0.95	Yes	0.763	0.235	1.00	Yes	1.00	**1.71**
		L_{15} - L_{16}	-----	-1519.15	-896	180	-379	-371	136	-265	-30	-39	-----	-----	-----	-----	-----	-----	-----	-----	0.916	0.082	1	Yes	0.909	0.089	1.00	Yes	1.00	**3.93**
		L_{16} - L_{17}	-----	-1143.74	1176	146	1344	-657	-344	-6	-101	-408	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.135	0.98	Yes	0.833	0.166	1.00	Yes	1.00	**5.16**
		L_{17} - L_{18}	-----	-836.06	458	271	743	-727	131	-247	-425	379	-----	-----	-----	-----	-----	-----	-----	-----	0.884	0.075	0.96	Yes	0.878	0.119	1.00	Yes	1.00	**4.04**
		L_{18} - L_{19}	-----	-648.31	683	123	345	-579	-239	38	270	-82	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.109	0.98	Yes	0.864	0.132	1.00	Yes	1.00	**3.61**
		L_{19} - L_{20}	533.50	-581.24	504	284	283	-1150	179	-217	-552	664	0.604	0.323	0.93	Yes	0.358	0.203	0.57	Yes	0.779	0.114	0.9	Yes	0.775	0.222	1.00	Yes	1.00	**4.39**
		L_{20} - L_{21}	967.90	-449.96	438	73	-809	-1000	-189	42	7	-717	0.772	0.223	1.00	Yes	0.506	0.137	0.65	Yes	0.425	0.181	0.61	Yes	0.422	0.146	0.57	Yes	1.00	**4.19**
		L_{21} - L_{22}	944.96	-276.20	181	14	-591	-1299	143	-189	-484	448	0.754	0.242	1.00	Yes	0.504	0.153	0.66	Yes	0.261	0.192	0.46	Yes	0.259	0.190	0.45	Yes	1.00	**3.51**
		L_{22} - L_{23}	909.74	-337.24	68	186	-1490	-379	-75	190	444	-50	0.725	0.265	1.00	Yes	0.485	0.167	0.66	Yes	0.319	0.212	0.54	Yes	0.316	0.217	0.54	Yes	1.00	**3.94**
		L_{23} - L_{24}	999.67	-903.33	346	723	-1007	-595	167	-181	-293	469	0.797	0.197	1.00	Yes	0.523	0.120	0.65	Yes	0.853	0.133	0.99	Yes	0.847	0.147	1.00	Yes	1.00	**8.13**
		L_{24} - L_{25}	650.73	-3.19	-821	694	-518	156	642	-308	-83	70	0.737	0.256	1.00	Yes	0.436	0.160	0.60	Yes	0.004	0.090	0.1	Yes	0.004	0.158	0.17	Yes	1.00	**5.41**
		L_{25} - L_{26}	354.38	-599.69	-438	1025	-297	142	-74	50	-34	-116	0.401	0.215	0.62	Yes	0.232	0.129	0.37	Yes	0.804	0.122	0.93	Yes	0.799	0.198	1.00	Yes	1.00	**4.94**
		L_{26} - L_{27}	-----	-837.91	-211	738	195	389	125	64	-86	319	-----	-----	-----	-----	-----	-----	-----	-----	0.886	0.097	0.99	Yes	0.880	0.118	1.00	Yes	1.00	**2.89**
		L_{27} - L_{28}	-----	-1123.12	-213	1436	-219	741	166	-45	58	-201	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.141	0.97	Yes	0.818	0.177	1.00	Yes	1.00	**2.43**
		L_{28} - L_{29}	-----	-1437.52	-58	-249	108	-1334	102	308	-39	76	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.129	1	Yes	0.860	0.133	1.00	Yes	1.00	**4.78**
		L_{29} - L_{30}	-----	-1500.92	-1050	2750	-628	1469	224	369	635	723	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.202	0.97	Yes	0.755	0.240	1.00	Yes	1.00	**2.07**
		L_{30} - L_{31}	-----	-1540.25	1727	-525	2524	-849	517	410	244	56	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.181	0.97	Yes	0.775	0.220	1.00	Yes	1.00	**1.34**
		L_{31} - L_{32}	-----	-1503.08	-556	180	-250	-750	207	-270	-80	286	-----	-----	-----	-----	-----	-----	-----	-----	0.907	0.085	1	Yes	0.899	0.075	0.98	Yes	1.00	**4.20**
		L_{32} - L_{33}	-----	-1047.42	989	-98	854	-603	-302	23	84	-67	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.109	0.98	Yes	0.859	0.135	1.00	Yes	1.00	**2.71**
		L_{33} - L_{34}	-----	-741.98	581	-4	584	-693	90	-130	-216	318	-----	-----	-----	-----	-----	-----	-----	-----	0.877	0.064	0.95	Yes	0.872	0.121	1.00	Yes	1.00	**2.50**
		L_{34} - L_{35}	565.53	-769.70	847	-95	172	-1167	-202	86	384	-118	0.505	0.233	0.74	Yes	0.294	0.144	0.44	Yes	0.814	0.110	0.93	Yes	0.808	0.187	1.00	Yes	1.00	**4.50**
		L_{35} - L_{36}	1082.48	-402.42	628	-99	255	-1237	160	-135	-511	731	0.757	0.236	1.00	Yes	0.510	0.149	0.66	Yes	0.334	0.133	0.47	Yes	0.331	0.167	0.50	Yes	1.00	**4.16**
		L_{36} - L_{37}	1377.02	-----	324	-243	-526	-1475	-198	148	501	-487	0.790	0.204	1.00	Yes	0.519	0.121	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.11**
		L_{37} - L_{38}	1821.31	-----	-296	-616	-1609	-1878	117	-181	-1019	534	0.771	0.228	1.00	Yes	0.512	0.137	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.38**
		L_{38} - L_{39}	1842.70	-----	-565	-213	-1861	-698	-106	174	636	139	0.791	0.205	1.00	Yes	0.531	0.126	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		L_{39} - L_{40}	1815.74	-----	-403	-298	-1385	-954	135	-116	130	325	0.846	0.153	1.00	Yes	0.560	0.091	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.57**
		L_{40} - L_{41}	1387.46	-----	-1345	95	-1171	-59	121	-260	232	-175	0.815	0.178	1.00	Yes	0.549	0.110	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.18**
		L_{41} - L_{42}	1045.70	-----	-1030	207	-213	-87	-215	-74	143	-67	0.824	0.172	1.00	Yes	0.540	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.96**
		L_{42} - L_{43}	580.08	-----	-1290	585	-270	141	196	10	-136	156	0.705	0.295	1.00	Yes	0.419	0.190	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.03**
		L_{43} - L_{44}	127.81	-262.59	-3044	1335	73	-136	380	110	-57	-16	0.155	0.682	0.84	Yes	0.092	0.440	0.54	Yes	0.378	0.425	0.81	Yes	0.375	0.619	1.00	Yes	1.00	**25.07**
	Structure 3	L_0 - L_1	-----	-451.62	53	-170	331	-614	27	122	-43	-193	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.134	0.96	Yes	0.813	0.184	1.00	Yes	1.00	**4.74**
		L_1 - L_2	162.19	-38.58	138	-188	984	-1696	160	-114	-741	1148	0.248	0.747	1.00	Yes	0.168	0.476	0.65	Yes	0.070	0.682	0.76	Yes	0.069	0.509	0.58	Yes	1.00	**13.17**
		L_2 - L_3	891.71	-----	-19	-201	183	-758	-64	168	578	-112	0.776	0.220	1.00	Yes	0.497	0.134	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.92**
		L_3 - L_4	1152.93	-----	19	-407	119	-1334	193	-4	-347	832	0.729	0.270	1.00	Yes	0.473	0.167	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.37**
		L_4 - L_5	1639.04	-----	-386	-249	-1282	-927	-37	224	221	-631	0.801	0.199	1.00	Yes	0.514	0.118	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.26**
		L_5 - L_6	1591.49	-----	-141	-460	-560	-1405	254	-30	-422	618	0.778	0.213	1.00	Yes	0.505	0.130	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.75**
		L_6 - L_7	1301.25	-----	-1320	330	-941	120	542	-66	-202	21	0.765	0.227	1.00	Yes	0.496	0.140	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.70**
		L_7 - L_8	1109.62	-78.72	-89	187	-539	-181	145	-198	-144	146	0.876	0.119	1.00	Yes	0.560	0.071	0.64	Yes	0.074	0.097	0.18	Yes	0.073	0.096	0.17	Yes	1.00	**5.27**
		L_8 - L_9	578.78	-----	-728	631	-485	246	291	-319	-176	-89	0.750	0.249	1.00	Yes	0.450	0.162	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.95**
		L_9 - L_{10}	79.43	-538.31	-375	663	-280	222	-11	-95	-64	-342	0.103	0.235	0.34	Yes	0.060	0.141	0.21	Yes	0.828	0.088	0.92	Yes	0.820	0.175	1.00	Yes	1.00	**4.46**
		L_{10} - L_{11}	-----	-1106.48	-546	685	122	-131	170	299	-411	-363	-----	-----	-----	-----	-----	-----	-----	-----	0.901	0.063	0.97	Yes	0.891	0.108	1.00	Yes	1.00	**7.44**
		L_{11} - L_{12}	-----	-1252.85	-89	1312	-46	697	93	158	358	136	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.193	1	Yes	0.793	0.174	0.97	Yes	1.00	**2.52**
		L_{12} - L_{13}	-----	-1135.09	1055	-16	1325	-96	-94	79	19	2	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.268	1	Yes	0.719	0.175	0.90	Yes	1.00	**2.79**
		L_{13} - L_{14}	-----	-1102.39	20	210	312	-534	225	-260	-146	169	-----	-----	-----	-----	-----	-----	-----	-----	0.897	0.094	1	Yes	0.887	0.084	0.98	Yes	1.00	**4.47**
		L_{14} - L_{15}	-----	-727.24	575	109	150	-284	-259	75	-182	-600	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.144	1	Yes	0.839	0.127	0.97	Yes	1.00	**3.07**
		L_{15} - L_{16}	192.64	-561.30	484	146	175	-511	259	-223	-658	531	0.249	0.253	0.51	Yes	0.150	0.160	0.32	Yes	0.863	0.134	1	Yes	0.855	0.135	1.00	Yes	1.00	**3.56**
		L_{16} - L_{17}	684.21	-268.31	389	-35	-547	-466	-170	163	488	-116	0.787	0.211	1.00	Yes	0.468	0.133	0.61	Yes	0.367	0.170	0.54	Yes	0.363	0.132	0.50	Yes	1.00	**4.75**
		L_{17} - L_{18}	701.50	-141.85	96	-72	-623	-519	96	-109	-222	117	0.807	0.186	1.00	Yes	0.467	0.111	0.58	Yes	0.194	0.198	0.4	Yes	0.192	0.150	0.35	Yes	1.00	**5.46**
		L_{18} - L_{19}	472.50	-----	-677	78	-34	-87	230	155	-324	79	0.723	0.273	1.00	Yes	0.441	0.181	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.40**
		L_{19} - L_{20}	236.00	-76.98	-1398	1401	355	-470	-990	-269	204	56	0.361	0.633	1.00	Yes	0.213	0.382	0.60	Yes	0.140	0.447	0.59	Yes	0.139	0.421	0.56	Yes	1.00	**33.26**

Moment (End) AB Inventory

Inventory Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 2.167

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Verticals	Structure 1	$U_0 - L_0$			-----	-299.85	-57	152	-8	42	-784	-252	231	74	-----	-----	-----	-----	-----	-----	-----	-----	0.670	0.326	1	Yes	0.634	0.195	0.83	Yes	1.00	**1.55**
		$U_1 - L_1$			41.24	-305.90	-235	226	43	-35	-938	-387	610	209	0.074	0.572	0.65	Yes	0.041	0.314	0.36	Yes	0.668	0.326	1	Yes	0.647	0.300	0.95	Yes	1.00	**3.17**
		$U_2 - L_2$			68.70	-133.89	-28	60	66	-71	-2709	-818	747	241	0.124	0.875	1.00	Yes	0.068	0.481	0.55	Yes	0.293	0.671	0.97	Yes	0.283	0.091	0.38	Yes	1.00	**2.40**
		$U_3 - L_3$			217.09	-----	36	-30	195	-205	-1178	-366	-449	-454	0.390	0.603	1.00	Yes	0.215	0.331	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.59**
		$U_4 - L_4$			-----	-185.77	74	-75	365	-376	686	333	-593	-227	-----	-----	-----	-----	-----	-----	-----	-----	0.408	0.584	1	Yes	0.393	0.481	0.88	Yes	1.00	**8.82**
		$U_5 - L_5$			-----	-362.25	79	-85	181	-199	1101	628	153	212	-----	-----	-----	-----	-----	-----	-----	-----	0.655	0.339	1	Yes	0.625	0.202	0.83	Yes	1.00	**2.67**
		$U_6 - L_6$			-----	-425.19	78	-66	171	-180	1459	727	-1353	-322	-----	-----	-----	-----	-----	-----	-----	-----	0.644	0.352	1	Yes	0.610	0.157	0.77	Yes	1.00	**2.42**
		$U_7 - L_7$			-----	-325.52	119	-134	231	-254	947	245	494	100	-----	-----	-----	-----	-----	-----	-----	-----	0.544	0.449	1	Yes	0.502	0.250	0.76	Yes	1.00	**1.54**
		$U_8 - L_8$			-----	-1233.31	-358	424	151	-188	-1003	-487	769	96	-----	-----	-----	-----	-----	-----	-----	-----	0.890	0.108	1	Yes	0.855	0.079	0.94	Yes	1.00	**4.35**
		$U_9 - L_9$			-----	-655.12	-408	455	-230	262	-373	-127	588	221	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.176	0.96	Yes	0.740	0.253	1.00	Yes	1.00	**2.09**
		$U_{10} - L_{10}$			-----	-784.47	-341	375	-164	144	-163	51	696	311	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.179	1	Yes	0.774	0.194	0.97	Yes	1.00	**3.14**
		$U_{11} - L_{11}$			-----	-666.16	-383	484	-166	217	-741	-123	622	359	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.196	1	Yes	0.775	0.224	1.00	Yes	1.00	**2.94**
		$U_{12} - L_{12}$			-----	-423.35	-210	226	-137	139	-1962	-532	664	369	-----	-----	-----	-----	-----	-----	-----	-----	0.612	0.383	1	Yes	0.581	0.193	0.78	Yes	1.00	**1.83**
		$U_{13} - L_{13}$			-----	-319.22	-173	199	-85	102	-810	-53	545	251	-----	-----	-----	-----	-----	-----	-----	-----	0.645	0.349	1	Yes	0.612	0.228	0.84	Yes	1.00	**3.32**
		$U_{14} - L_{14}$			-----	-159.67	-104	120	-9	11	-2092	-604	-1779	-524	-----	-----	-----	-----	-----	-----	-----	-----	0.356	0.638	1	Yes	0.338	0.153	0.50	Yes	1.00	**7.12**
		$U_{15} - L_{15}$			30.91	-256.21	-31	27	176	-201	456	96	-1307	-415	0.056	0.635	0.70	Yes	0.031	0.349	0.38	Yes	0.574	0.417	1	Yes	0.542	0.257	0.80	Yes	1.00	**5.39**
		$U_{16} - L_{16}$			-----	-318.03	37	-42	238	-250	484	106	-667	-199	-----	-----	-----	-----	-----	-----	-----	-----	0.717	0.273	0.99	Yes	0.673	0.319	1.00	Yes	1.00	**4.23**
		$U_{17} - L_{17}$			-----	-419.12	77	-90	199	-220	504	197	-106	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.211	1	Yes	0.723	0.223	0.95	Yes	1.00	**2.67**
		$U_{18} - L_{18}$			-----	-460.27	179	-185	372	-385	682	174	462	133	-----	-----	-----	-----	-----	-----	-----	-----	0.674	0.322	1	Yes	0.640	0.218	0.86	Yes	1.00	**2.60**
		$U_{19} - L_{19}$			-----	-567.32	187	-200	407	-432	594	114	564	89	-----	-----	-----	-----	-----	-----	-----	-----	0.708	0.291	1	Yes	0.660	0.200	0.87	Yes	1.00	**3.09**
		$U_{20} - L_{20}$			-----	-501.95	241	-290	406	-471	455	60	377	49	-----	-----	-----	-----	-----	-----	-----	-----	0.663	0.329	1	Yes	0.584	0.219	0.81	Yes	1.00	**2.13**
	Structure 2	$U_0 - L_0$			-----	-640.78	-255	442	-155	257	-857	-145	59	10	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.227	1	Yes	0.687	0.188	0.88	Yes	1.00	**1.61**
		$U_1 - L_1$			-----	-711.08	-546	548	-188	196	-429	-108	618	151	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.145	0.96	Yes	0.762	0.233	1.00	Yes	1.00	**2.72**
		$U_2 - L_2$			-----	-598.85	-434	459	-135	150	-396	159	619	265	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.175	0.98	Yes	0.763	0.235	1.00	Yes	1.00	**2.51**
		$U_3 - L_3$			-----	-458.81	-207	227	-66	76	-228	136	546	254	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.211	1	Yes	0.720	0.207	0.93	Yes	1.00	**2.07**
		$U_4 - L_4$			-----	-318.54	-182	196	-3	14	-615	9	574	224	-----	-----	-----	-----	-----	-----	-----	-----	0.722	0.273	1	Yes	0.674	0.251	0.93	Yes	1.00	**2.80**
		$U_5 - L_5$			115.04	-254.82	-135	167	89	-84	-1144	-160	579	168	0.207	0.545	0.76	Yes	0.114	0.300	0.42	Yes	0.576	0.416	1	Yes	0.539	0.214	0.76	Yes	1.00	**4.29**
		$U_6 - L_6$			197.05	-----	-53	58	119	-132	-1638	-367	598	162	0.354	0.643	1.00	Yes	0.195	0.353	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.98**
		$U_7 - L_7$			-----	-175.86	56	-63	245	-285	-253	-113	-741	-168	-----	-----	-----	-----	-----	-----	-----	-----	0.397	0.594	1	Yes	0.372	0.364	0.74	Yes	1.00	**8.85**
		$U_8 - L_8$			-----	-468.39	169	-184	346	-369	611	183	-600	-239	-----	-----	-----	-----	-----	-----	-----	-----	0.679	0.191	0.87	Yes	0.675	0.323	1.00	Yes	1.00	**2.80**
		$U_9 - L_9$			-----	-692.81	278	-280	563	-586	1045	566	-538	-159	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.205	0.98	Yes	0.742	0.249	1.00	Yes	1.00	**3.27**
		$U_{10} - L_{10}$			-----	-754.57	236	-235	518	-523	1159	716	-216	94	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.252	1	Yes	0.705	0.231	0.94	Yes	1.00	**2.89**
		$U_{11} - L_{11}$			-----	-727.92	226	-219	444	-453	1203	694	389	375	-----	-----	-----	-----	-----	-----	-----	-----	0.732	0.262	1	Yes	0.681	0.200	0.89	Yes	1.00	**2.42**
		$U_{12} - L_{12}$			-----	-724.72	183	-164	415	-413	1485	652	746	443	-----	-----	-----	-----	-----	-----	-----	-----	0.695	0.304	1	Yes	0.628	0.178	0.81	Yes	1.00	**2.36**
		$U_{13} - L_{13}$			-----	-622.13	217	-216	518	-512	1172	308	109	-14	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.304	1	Yes	0.600	0.248	0.85	Yes	1.00	**2.59**
		$U_{14} - L_{14}$			-----	-1155.61	-496	457	524	-503	-1342	-715	821	91	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.149	1	Yes	0.766	0.093	0.86	Yes	1.00	**4.78**
		$U_{15} - L_{15}$			-----	-685.72	-632	615	-249	259	-683	-162	624	56	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.231	1	Yes	0.661	0.302	0.97	Yes	1.00	**2.99**
		$U_{16} - L_{16}$			-----	-711.67	-494	480	-159	126	-472	-93	795	157	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.172	1	Yes	0.763	0.210	0.98	Yes	1.00	**2.72**
		$U_{17} - L_{17}$			-----	-643.62	-521	526	-191	183	-493	8	673	150	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.166	0.96	Yes	0.749	0.244	1.00	Yes	1.00	**2.68**
		$U_{18} - L_{18}$			-----	-583.87	-457	491	-173	161	-617	-34	661	166	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.173	0.96	Yes	0.744	0.251	1.00	Yes	1.00	**2.64**
		$U_{19} - L_{19}$			-----	-479.52	-286	288	-108	104	-729	-51	563	174	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.208	0.93	Yes	0.716	0.277	1.00	Yes	1.00	**2.58**
		$U_{20} - L_{20}$			-----	-357.17	-183	195	-59	62	-714	-136	586	137	-----	-----	-----	-----	-----	-----	-----	-----	0.732	0.259	1	Yes	0.684	0.223	0.91	Yes	1.00	**3.47**
	Structure 3	$U_0 - L_0$			-----	-279.75	-164	187	-31	33	-1030	-217	662	110	-----	-----	-----	-----	-----	-----	-----	-----	0.632	0.368	1	Yes	0.592	0.239	0.84	Yes	1.00	**4.82**
		$U_1 - L_1$			-----	-161.32	-45	54	111	-127	-1833	-579	-2205	-729	-----	-----	-----	-----	-----	-----	-----	-----	0.363	0.631	1	Yes	0.341	0.163	0.51	Yes	1.00	**6.65**
		$U_2 - L_2$			-----	-311.21	35	-39	210	-232	644	239	-699	-201	-----	-----	-----	-----	-----	-----	-----	-----	0.703	0.295	1	Yes	0.659	0.297	0.96	Yes	1.00	**3.76**
		$U_3 - L_3$			-----	-315.30	78	-81	164	-175	633	240	-1063	-134	-----	-----	-----	-----	-----	-----	-----	-----	0.646	0.345	1	Yes	0.604	0.200	0.81	Yes	1.00	**1.56**
		$U_4 - L_4$			-----	-469.91	113	-111	303	-298	628	252	-48	90	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.194	0.91	Yes	0.702	0.292	1.00	Yes	1.00	**2.15**
		$U_5 - L_5$			-----	-582.58	171	-168	485	-503	716	313	45	215	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.189	0.97	Yes	0.742	0.257	1.00	Yes	1.00	**2.57**
		$U_6 - L_6$			-----	-586.79	195	-189	505	-508	1278	597	329	308	-----	-----	-----	-----	-----	-----	-----	-----	0.724	0.271	1	Yes	0.683	0.236	0.92	Yes	1.00	**2.58**
		$U_7 - L_7$			-----	-596.43	117	-86	434	-416	1777	590	634	365	-----	-----	-----	-----	-----	-----	-----	-----	0.689	0.302	1	Yes	0.639	0.184	0.83	Yes	1.00	**2.87**
		$U_8 - L_8$			-----	-608.35	109	-116	599	-593	1258	181	-167	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.678	0.315	1	Yes	0.587	0.286	0.88	Yes	1.00	**3.55**
		$U_9 - L_9$			-----	-1210.63	-561	496	279	-293	-843	-264	666	-114	-----	-----	-----	-----	-----	-----	-----	-----	0.885	0.110	1	Yes	0.803	0.099	0.91	Yes	1.00	**4.67**
		$U_{10} - L_{10}$			-----	-629.41	-470	462	-309	302	-1345	-76	462	88	-----	-----	-----	-----	-----	-----	-----	-----	0.702	0.297	1	Yes	0.607	0.225	0.84	Yes	1.00	**1.65**
		$U_{11} - L_{11}$			-----	-862.45	-466	466	-212	180	-552	-56	577	159	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.164	1	Yes	0.748	0.200	0.95	Yes	1.00	**2.75**
		$U_{12} - L_{12}$			-----	-822.49	-488	497	-247	227	-647	8	521	205	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.171	1	Yes	0.769	0.219	0.99	Yes	1.00	**2.95**
		$U_{13} - L_{13}$			-----	-775.37	-488	525	-246	238	-1019	-78	475	195	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.229	1	Yes	0.725	0.232	0.96	Yes	1.00	**3.30**
		$U_{14} - L_{14}$			-----	-693.39	-529	574	-270	274	-1112	-195	597	302	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.221	1	Yes	0.743	0.244	0.99	Yes	1.00	**3.57**
		$U_{15} - L_{15}$			-----	-470.71	-329	358	-151	168	-1142	-156	559	265	-----	-----	-----	-----	-----	-----	-----	-----	0.682	0.304	0.99	Yes	0.678	0.313	1.00	Yes	1.00	**3.30**
		$U_{16} - L_{16}$			-----	-143.61	-173	204	-69	81	-1623	-292	466	131	-----	-----	-----	-----	-----	-----	-----	-----	0.324	0.667	1	Yes	0.304	0.261	0.57	Yes	1.00	**5.63**
		$U_{17} - L_{17}$			176.77	-89.87	-121	133	131	-136	478	144	-1751	-624	0.318	0.681	1.00	Yes	0.175	0.374	0.55	Yes	0.202	0.474	0.68	Yes	0.190	0.174	0.37	Yes	1.00	**5.10**
		$U_{18} - L_{18}$			152.45	-255.12	-158	172	201	-236	468	147	-1341	-495	0.274	0.689	0.97	Yes	0.151	0.379	0.53	Yes	0.558	0.440	1	Yes	0.540	0.301	0.85	Yes	1.00	**7.23**
		$U_{19} - L_{19}$			21.87	-297.67	-50	32	179	-201	422	211	480	237	0.039	0.395	0.44	Yes	0.022	0.217	0.24	Yes	0.650	0.348	1	Yes	0.630	0.256	0.89	Yes	1.00	**4.50**
		$U_{20} - L_{20}$			-----	-240.88	79	-90	175	-209	593	190	588	189	-----	-----	-----	-----	-----	-----	-----	-----	0.538	0.458	1	Yes	0.510	0.268	0.78	Yes	1.00	**1.98**

Moment (End) AB Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
South Truss - Diagonals	Structure 1	$U_0 - L_1$	566.62	-73.40	4	32	3	-15	-869	-485	136	201	0.743	0.256	1.00	Yes	0.449	0.141	0.59	Yes	0.125	0.269	0.4	Yes	0.113	0.037	0.16	Yes	1.00	**3.72**
		$U_1 - L_2$	321.83	-----	-87	6	-88	-29	-869	-437	-1054	-992	0.579	0.418	1.00	Yes	0.318	0.230	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.00**
		$U_2 - L_3$	-----	-248.07	0	-15	-12	-48	182	53	-1549	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.571	0.421	1	Yes	0.525	0.062	0.59	Yes	1.00	**3.27**
		$U_3 - L_4$	-----	-295.45	28	-11	10	-74	500	300	-787	-266	-----	-----	-----	-----	-----	-----	-----	-----	0.676	0.318	1	Yes	0.625	0.094	0.72	Yes	1.00	**3.68**
		$U_4 - L_4$	559.64	-----	-64	95	-44	28	301	191	-320	-129	0.821	0.171	1.00	Yes	0.451	0.094	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.93**
		$U_5 - L_5$	650.73	-----	-119	282	-44	103	187	356	-250	30	0.769	0.226	1.00	Yes	0.423	0.124	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		$U_7 - L_6$	611.31	-----	-245	290	-26	90	-58	28	-611	55	0.723	0.276	1.00	Yes	0.398	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.67**
		$U_8 - L_7$	636.37	-----	-42	361	32	93	141	-33	-217	-135	0.752	0.245	1.00	Yes	0.414	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.66**
		$U_9 - L_9$	960.67	-----	-33	407	-3	180	-385	-221	281	161	0.768	0.230	1.00	Yes	0.476	0.129	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_9 - L_{10}$	980.00	-----	-285	279	-122	116	-662	-419	345	153	0.783	0.211	1.00	Yes	0.485	0.120	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.36**
		$U_{10} - L_{11}$	932.54	-----	-213	211	-95	91	-847	-685	81	-102	0.788	0.210	1.00	Yes	0.488	0.120	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.34**
		$U_{11} - L_{12}$	744.25	-----	-234	85	-107	43	-828	-998	64	-113	0.736	0.258	1.00	Yes	0.405	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.72**
		$U_{12} - L_{13}$	566.68	-----	-203	141	-81	61	-646	-580	158	16	0.691	0.304	1.00	Yes	0.435	0.173	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.91**
		$U_{13} - L_{14}$	284.70	-----	-50	42	-84	-40	155	-62	-1300	-745	0.512	0.484	1.00	Yes	0.282	0.266	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.31**
		$U_{15} - L_{14}$	-----	-147.58	22	-15	-144	-241	-461	507	1197	-148	-----	-----	-----	-----	-----	-----	-----	-----	0.346	0.648	1	Yes	0.312	0.308	0.63	Yes	1.00	**35.95**
		$U_{16} - L_{15}$	390.39	-21.31	-155	88	-12	-8	325	27	-298	-124	0.702	0.292	1.00	Yes	0.386	0.161	0.55	Yes	0.051	0.176	0.23	Yes	0.045	0.198	0.25	Yes	1.00	**5.67**
		$U_{17} - L_{16}$	527.20	-----	-149	95	-44	21	95	0	-311	-109	0.773	0.223	1.00	Yes	0.425	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.36**
		$U_{18} - L_{17}$	617.40	-----	-338	254	-128	86	76	55	-405	-118	0.730	0.265	1.00	Yes	0.401	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.70**
		$U_{19} - L_{18}$	692.51	-----	-329	248	-130	94	-94	47	-458	-206	0.750	0.243	1.00	Yes	0.413	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.86**
		$U_{20} - L_{19}$	682.34	-----	-413	331	-175	141	-167	-138	-258	-142	0.739	0.254	1.00	Yes	0.406	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
	Structure 2	$U_0 - L_1$	714.02	-----	-187	277	-97	122	-1068	-353	-126	20	0.706	0.288	1.00	Yes	0.389	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.35**
		$U_1 - L_2$	706.48	-----	-382	291	-151	107	-793	-573	171	-5	0.699	0.296	1.00	Yes	0.384	0.163	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.30**
		$U_2 - L_3$	576.67	-----	-309	246	-104	76	-760	-541	155	-2	0.682	0.312	1.00	Yes	0.375	0.172	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.25**
		$U_3 - L_4$	515.71	-----	-167	110	-44	19	-762	-486	194	29	0.687	0.312	1.00	Yes	0.378	0.172	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.30**
		$U_4 - L_5$	310.32	-75.58	-124	71	13	-25	-945	-455	270	60	0.558	0.432	1.00	Yes	0.307	0.238	0.55	Yes	0.187	0.415	0.61	Yes	0.160	0.159	0.32	Yes	1.00	**3.41**
		$U_5 - L_6$	244.04	-239.75	-84	2	69	-69	-1414	-497	403	128	0.439	0.516	0.96	Yes	0.241	0.284	0.53	Yes	0.566	0.431	1	Yes	0.507	0.107	0.62	Yes	1.00	**5.15**
		$U_6 - L_7$	-----	-378.41	-3	-44	41	-101	-252	-554	-624	-181	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.185	1	Yes	0.725	0.116	0.85	Yes	1.00	**4.21**
		$U_8 - L_7$	547.82	-----	-176	144	-99	55	287	127	-600	-693	0.699	0.299	1.00	Yes	0.440	0.171	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.25**
		$U_9 - L_8$	581.01	-----	-292	225	-199	128	1322	162	-448	-415	0.629	0.367	1.00	Yes	0.346	0.202	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.35**
		$U_{10} - L_9$	789.48	-----	-276	252	-151	137	85	552	-200	-27	0.781	0.211	1.00	Yes	0.430	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.44**
		$U_{11} - L_{10}$	878.02	-----	-310	343	-146	164	243	285	-389	141	0.800	0.199	1.00	Yes	0.440	0.109	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.90**
		$U_{12} - L_{11}$	829.12	-----	-300	362	-126	176	-14	282	-604	65	0.755	0.236	1.00	Yes	0.415	0.130	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.65**
		$U_{13} - L_{12}$	732.60	-----	-418	384	-157	162	-239	164	-532	-6	0.725	0.273	1.00	Yes	0.399	0.150	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.63**
		$U_{14} - L_{13}$	702.26	-----	-184	449	-9	120	605	122	-157	-118	0.695	0.299	1.00	Yes	0.382	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.11**
		$U_{14} - L_{15}$	579.79	-----	-153	363	6	151	-103	-44	563	257	0.685	0.308	1.00	Yes	0.377	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.79**
		$U_{15} - L_{16}$	585.83	-----	-347	319	-154	149	52	-370	603	197	0.693	0.306	1.00	Yes	0.381	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.96**
		$U_{16} - L_{17}$	686.11	-----	-328	356	-121	156	-430	-307	356	126	0.743	0.253	1.00	Yes	0.409	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.57**
		$U_{17} - L_{18}$	626.53	-----	-281	278	-105	134	-498	-320	388	126	0.741	0.249	1.00	Yes	0.407	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.32**
		$U_{18} - L_{19}$	602.38	-----	-275	248	-77	109	-680	-477	366	145	0.712	0.279	1.00	Yes	0.392	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.68**
		$U_{19} - L_{20}$	527.69	-----	-172	165	-36	58	-818	-396	447	229	0.673	0.321	1.00	Yes	0.370	0.185	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.88**
		$U_{20} - L_{21}$	352.93	-----	-114	97	-15	25	-744	-330	416	222	0.635	0.361	1.00	Yes	0.349	0.199	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.27**
		$U_{21} - L_{22}$	61.98	-97.32	-8	43	-27	-109	455	274	-2295	-911	0.111	0.803	0.92	Yes	0.061	0.442	0.51	Yes	0.230	0.767	1	Yes	0.206	0.139	0.35	Yes	1.00	**7.69**
		$U_{23} - L_{22}$	361.90	-----	-114	49	-44	-25	686	167	200	-62	0.651	0.344	1.00	Yes	0.358	0.189	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.49**
		$U_{24} - L_{23}$	408.93	-----	-129	102	-41	30	249	85	-327	-190	0.735	0.259	1.00	Yes	0.405	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.38**
		$U_{25} - L_{24}$	565.67	-----	-180	165	-74	72	130	572	-322	-170	0.721	0.278	1.00	Yes	0.397	0.159	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.45**
		$U_{26} - L_{25}$	659.67	-----	-260	292	-67	124	280	248	-197	79	0.780	0.216	1.00	Yes	0.429	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.63**
		$U_{27} - L_{26}$	631.00	-----	-266	307	-81	129	108	272	-431	141	0.746	0.252	1.00	Yes	0.410	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.45**
		$U_{28} - L_{27}$	660.60	-----	-281	351	-70	127	-47	222	-634	32	0.716	0.284	1.00	Yes	0.394	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.64**
		$U_{29} - L_{28}$	581.39	-----	-342	322	-63	80	10	574	-633	-77	0.687	0.308	1.00	Yes	0.378	0.170	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.82**
		$U_{30} - L_{29}$	581.57	-----	-137	371	62	37	530	95	-282	-249	0.688	0.306	1.00	Yes	0.378	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.11**
		$U_{30} - L_{31}$	729.51	-----	-257	434	-52	216	-475	-247	442	202	0.722	0.272	1.00	Yes	0.397	0.150	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.82**
		$U_{31} - L_{32}$	739.33	-----	-429	381	-229	212	-438	-252	314	82	0.731	0.264	1.00	Yes	0.402	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.10**
		$U_{32} - L_{33}$	821.83	-----	-338	332	-153	192	-760	-530	305	82	0.749	0.247	1.00	Yes	0.412	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.43**
		$U_{33} - L_{34}$	807.77	-----	-285	307	-168	160	-934	-510	154	-50	0.736	0.258	1.00	Yes	0.405	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.48**
		$U_{34} - L_{35}$	758.38	-----	-261	257	-149	130	-859	-514	48	-107	0.750	0.250	1.00	Yes	0.413	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.61**
		$U_{35} - L_{36}$	647.48	-----	-292	238	-214	122	-893	-487	5	-366	0.701	0.296	1.00	Yes	0.386	0.163	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		$U_{36} - L_{37}$	512.98	-----	-173	143	-82	64	-911	-607	90	-69	0.654	0.341	1.00	Yes	0.412	0.197	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.38**
		$U_{38} - L_{37}$	-----	-357.50	12	-42	33	-92	-324	-197	382	-91	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.222	1	Yes	0.685	0.105	0.79	Yes	1.00	**4.54**
		$U_{39} - L_{38}$	377.96	-211.95	-124	41	59	-66	547	-90	-365	-80	0.680	0.317	1.00	Yes	0.374	0.174	0.55	Yes	0.505	0.315	0.82	Yes	0.448	0.159	0.61	Yes	1.00	**5.45**
		$U_{40} - L_{39}$	393.17	-38.95	-139	90	2	-16	154	39	-378	-100	0.707	0.287	1.00	Yes	0.389	0.158	0.55	Yes	0.093	0.168	0.27	Yes	0.082	0.178	0.27	Yes	1.00	**3.49**
		$U_{41} - L_{40}$	559.80	-----	-178	125	-51	25	8	7	-413	-181	0.746	0.249	1.00	Yes	0.410	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.49**
		$U_{42} - L_{41}$	620.23	-----	-327	262	-112	83	-32	36	-409	-173	0.733	0.259	1.00	Yes	0.403	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.56**
		$U_{43} - L_{42}$	772.44	-----	-376	309	-125	93	-90	85	-388	-200	0.764	0.232	1.00	Yes	0.420	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.26**
		$U_{44} - L_{43}$	790.53	-----	-406	383	-154	147	54	58	-167	22	0.782	0.213	1.00	Yes	0.430	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.48**
	Structure 3	$U_0 - L_1$	651.69	-----	-175	230	-78	102	-1029	-378	-147	3	0.706	0.287	1.00	Yes	0.388	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.47**
		$U_1 - L_2$	635.84	-----	-339	243	-159	109	-799	-538	160	-42	0.689	0.305	1.00	Yes	0.379	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.30**
		$U_2 - L_3$	561.66	-----	-303	240	-125	86	-873	-618	128	-29	0.664	0.330	1.00	Yes	0.365	0.181	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.47**
		$U_3 - L_4$	460.00	-----	-133	73	-43	21	-668	-803	150	-29	0.675	0.322	1.00	Yes	0.371	0.177	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.23**
		$U_4 - L_5$	278.77	-86.68	-139	63	10	-23	-1078	-667	332	90	0.501	0.490	1.00	Yes	0.276	0.269	0.55	Yes	0.205	0.403	0.61	Yes	0.183	0.177	0.37	Yes	1.00	**8.02**
		$U_5 - L_6$	-----	-210.07	-3	-33	18	-105	135	-30	-1071	-422	-----	-----	-----	-----	-----	-----	-----	-----	0.492	0.502	1	Yes	0.444	0.134	0.58	Yes	1.00	**4.05**
		$U_7 - L_6$	416.94	-----	-91	40	-45	12	113	-135	-428	-207	0.750	0.240	1.00	Yes	0.412	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.96**
		$U_8 - L_7$	628.55	-----	-203	165	-93	70	241	112	-241	-103	0.766	0.224	1.00	Yes	0.482	0.126	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.54**
		$U_9 - L_8$	832.49	-----	-231	155	-106	54	438	380	-266	-35	0.824	0.173	1.00	Yes	0.453	0.095	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.04**
		$U_{10} - L_9$	960.77	-----	-187	247	-92	100	470	511	-202	50	0.812	0.181	1.00	Yes	0.502	0.102	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.44**
		$U_{11} - L_{10}$	969.84	-----	-274	311	-71	102	461	410	-618	-46	0.775	0.218	1.00	Yes	0.480	0.123	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.78**
		$U_{12} - L_{11}$	940.91	-----	-22	402	20	132	403	274	-507	-112	0.752	0.244	1.00	Yes	0.466	0.137	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.40**
		$U_{13} - L_{12}$	584.09	-----	-51	319	-21	149	2	-44	666	200	0.691	0.303	1.00	Yes	0.380	0.167	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.88**
		$U_{13} - L_{14}$	637.15	-----	-278	248	-116	118	-218	-447	424	136	0.753	0.240	1.00	Yes	0.414	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.91**
		$U_{14} - L_{15}$	505.91	-----	-150	211	-74	101	-1507	-241	79	-434	0.598	0.393	1.00	Yes	0.329	0.216	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.74**
		$U_{15} - L_{16}$	370.89	-----	-7	86	-76	-10	484	257	-1559	-922	0.544	0.450	1.00	Yes	0.299	0.248	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.07**
		$U_{17} - L_{16}$	-----	-342.71	56	-8	-41	-66	-247	4	239	-446	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.207	1	Yes	0.725	0.084	0.81	Yes	1.00	**6.05**
		$U_{18} - L_{17}$	341.66	-201.36	-137	3	-22	-60	6	-422	707	4	0.614	0.379	1.00	Yes	0.338	0.209	0.55	Yes	0.463	0.369	0.84	Yes	0.426	0.175	0.61	Yes	1.00	**13.53**
		$U_{19} - L_{18}$	460.51	-219.45	-84	6	40	-30	109	52	-207	-118	0.828	0.167	1.00	Yes	0.456	0.092	0.55	Yes	0.503	0.162	0.67	Yes	0.464	0.107	0.58	Yes	1.00	**7.04**
		$U_{20} - L_{19}$	615.67	-75.55	-142	81	-25	-3	-4	22	-70	-4	0.808	0.183	1.00	Yes	0.488	0.101	0.59	Yes	0.129	0.094	0.23	Yes	0.117	0.166	0.29	Yes	1.00	**6.07**

Moment (End) AB Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

				Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
								Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
						Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
						(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Upper Chord	Structure 1	U_0 - U_1				85.13	-596.06	-168	161	-430	-569	6	12	-67	-131	0.098	0.158	0.26	Yes	0.067	0.108	0.18	Yes	0.811	0.186	1.00	Yes	0.804	0.135	0.94	Yes	1.00	**7.96**
		U_1 - U_2				77.85	-601.04	-54	119	-160	-626	-7	-6	-17	-154	0.089	0.175	0.27	Yes	0.061	0.120	0.19	Yes	0.818	0.182	1.00	Yes	0.811	0.149	0.96	Yes	1.00	**4.34**
		U_2 - U_3				187.76	-638.28	-107	305	-455	-301	10	26	-26	129	0.215	0.130	0.35	Yes	0.145	0.085	0.23	Yes	0.868	0.128	1.00	Yes	0.861	0.108	0.97	Yes	1.00	**4.00**
		U_3 - U_4				357.45	-559.30	84	319	-389	-613	5	38	156	62	0.410	0.172	0.59	Yes	0.281	0.118	0.40	Yes	0.761	0.233	1.00	Yes	0.754	0.146	0.90	Yes	1.00	**3.93**
		U_4 - U_5				381.27	-585.82	141	310	-871	-152	21	-31	94	-51	0.437	0.223	0.66	Yes	0.300	0.153	0.46	Yes	0.797	0.196	1.00	Yes	0.790	0.207	1.00	Yes	1.00	**4.15**
		U_5 - U_6				281.29	-490.13	-499	1288	-503	-65	386	-885	1347	-1440	0.322	0.550	0.88	Yes	0.217	0.363	0.59	Yes	0.667	0.330	1.00	Yes	0.661	0.306	0.97	Yes	1.00	**15.69**
		U_6 - U_7				905.52	-----	401	241	-145	37	-323	-133	161	-177	0.866	0.130	1.00	Yes	0.605	0.089	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.21**
		U_7 - U_8				1003.51	-----	-392	1790	-91	778	-211	-221	-241	-116	0.695	0.296	1.00	Yes	0.485	0.201	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.45**
		U_8 - U_9				773.46	-----	720	-96	1690	-789	-660	-156	-383	-56	0.634	0.364	1.00	Yes	0.434	0.248	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.16**
		U_9 - U_{10}				764.71	-----	248	338	268	-278	-258	30	-17	569	0.829	0.167	1.00	Yes	0.562	0.112	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.80**
		U_{10} - U_{11}				365.91	-617.91	371	-28	303	-925	22	102	212	143	0.397	0.241	0.64	Yes	0.264	0.154	0.42	Yes	0.796	0.164	0.96	Yes	0.789	0.207	1.00	Yes	1.00	**5.70**
		U_{11} - U_{12}				-----	-894.56	230	-103	48	-656	112	403	154	613	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.151	1.00	Yes	0.839	0.109	0.95	Yes	1.00	**3.54**
		U_{12} - U_{13}				-----	-1278.60	10	-234	-193	-576	345	206	538	331	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.133	1.00	Yes	0.854	0.079	0.94	Yes	1.00	**3.54**
		U_{13} - U_{14}				-----	-1350.73	-154	-389	-462	-1405	225	177	383	502	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.213	1.00	Yes	0.774	0.155	0.93	Yes	1.00	**2.81**
		U_{14} - U_{15}				-----	-1353.67	-280	-254	-1314	-606	213	29	590	170	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.211	1.00	Yes	0.776	0.145	0.93	Yes	1.00	**2.81**
		U_{15} - U_{16}				-----	-1477.52	-197	-412	-554	-793	79	46	428	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.135	1.00	Yes	0.847	0.088	0.94	Yes	1.00	**3.40**
		U_{16} - U_{17}				-----	-1409.28	-329	-185	-1143	-442	182	-34	625	85	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.178	1.00	Yes	0.808	0.126	0.94	Yes	1.00	**4.44**
		U_{17} - U_{18}				-----	-1100.83	-673	106	-355	-85	458	-59	251	-264	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.121	1.00	Yes	0.861	0.110	0.98	Yes	1.00	**4.07**
		U_{18} - U_{19}				-----	-737.24	-713	-40	-191	-75	464	-280	14	-116	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.156	1.00	Yes	0.829	0.143	0.98	Yes	1.00	**4.41**
		U_{19} - U_{20}				-----	-467.35	-1538	2334	-534	43	411	-1336	67	-61	-----	-----	-----	-----	-----	-----	-----	-----	0.531	0.332	0.87	Yes	0.526	0.470	1.00	Yes	1.00	**9.45**
	Structure 2	U_0 - U_1				-----	-653.56	-103	-10	-177	-1305	8	-61	-55	-119	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.221	1.00	Yes	0.772	0.222	1.00	Yes	1.00	**9.20**
		U_1 - U_2				-----	-881.64	-55	-145	46	-882	-73	-220	-35	-153	-----	-----	-----	-----	-----	-----	-----	-----	0.857	0.142	1.00	Yes	0.851	0.134	0.99	Yes	1.00	**4.98**
		U_2 - U_3				-----	-1215.04	-108	-226	-71	-1139	-23	409	-85	106	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.131	1.00	Yes	0.862	0.116	0.98	Yes	1.00	**4.36**
		U_3 - U_4				-----	-1456.65	-400	-372	-803	-1058	259	366	172	129	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.157	1.00	Yes	0.829	0.094	0.93	Yes	1.00	**3.75**
		U_4 - U_5				-----	-1549.63	-453	-328	-828	-1388	808	319	240	139	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.193	1.00	Yes	0.796	0.115	0.92	Yes	1.00	**3.33**
		U_5 - U_6				-----	-1648.10	-392	72	-1154	-773	182	-247	264	381	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.143	1.00	Yes	0.846	0.096	0.95	Yes	1.00	**3.28**
		U_6 - U_7				-----	-1394.43	-261	-83	-956	-1429	-151	-196	336	134	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.192	1.00	Yes	0.794	0.127	0.93	Yes	1.00	**2.65**
		U_7 - U_8				-----	-1412.00	-178	-153	-1539	-827	-114	-192	208	54	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.187	1.00	Yes	0.804	0.137	0.95	Yes	1.00	**2.71**
		U_8 - U_9				-----	-1281.88	-243	159	-964	-401	-109	-208	312	-229	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.121	1.00	Yes	0.869	0.103	0.98	Yes	1.00	**3.00**
		U_9 - U_{10}				522.88	-992.90	144	617	-1059	-265	-223	-195	465	-273	0.384	0.179	0.57	Yes	0.260	0.121	0.39	Yes	0.862	0.134	1.00	Yes	0.857	0.129	0.99	Yes	1.00	**5.55**
		U_{10} - U_{11}				656.53	-827.17	290	469	-1087	-96	-216	-183	334	-135	0.555	0.194	0.75	Yes	0.377	0.126	0.51	Yes	0.827	0.170	1.00	Yes	0.822	0.153	0.98	Yes	1.00	**4.85**
		U_{11} - U_{12}				828.02	-433.40	-1624	1208	-668	123	378	-181	-83	-511	0.699	0.291	1.00	Yes	0.470	0.195	0.67	Yes	0.433	0.133	0.57	Yes	0.431	0.229	0.66	Yes	1.00	**9.46**
		U_{12} - U_{13}				1270.45	-----	560	160	-762	-305	-477	-412	427	-452	0.858	0.141	1.00	Yes	0.612	0.097	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.38**
		U_{13} - U_{14}				1240.32	-----	-865	3531	-274	1458	-416	-870	-428	-454	0.610	0.386	1.00	Yes	0.432	0.254	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.53**
		U_{14} - U_{15}				1279.03	-----	1302	67	3196	-319	-817	-608	-1038	-626	0.629	0.367	1.00	Yes	0.445	0.241	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.24**
		U_{15} - U_{16}				1417.49	-----	42	564	-3	-177	-913	-678	-304	475	0.857	0.141	1.00	Yes	0.610	0.098	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.99**
		U_{16} - U_{17}				1152.92	-----	595	434	883	-605	-321	-75	310	212	0.850	0.145	1.00	Yes	0.565	0.095	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.60**
		U_{17} - U_{18}				799.21	-----	417	389	605	-576	0	201	55	628	0.802	0.195	1.00	Yes	0.534	0.128	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.58**
		U_{18} - U_{19}				820.48	-522.88	527	425	393	-722	61	113	351	276	0.824	0.174	1.00	Yes	0.540	0.111	0.66	Yes	0.621	0.184	0.81	Yes	0.618	0.123	0.75	Yes	1.00	**5.63**
		U_{19} - U_{20}				614.71	-782.46	390	334	-127	-538	0	-62	129	420	0.576	0.143	0.72	Yes	0.382	0.094	0.48	Yes	0.869	0.128	1.00	Yes	0.863	0.086	0.95	Yes	1.00	**4.71**
		U_{20} - U_{21}				487.04	-950.52	217	210	-236	-570	-84	-73	291	169	0.378	0.114	0.50	Yes	0.265	0.075	0.34	Yes	0.874	0.122	1.00	Yes	0.867	0.082	0.95	Yes	1.00	**4.21**
		U_{21} - U_{22}				312.02	-834.83	74	153	-508	-1122	-29	30	185	340	0.242	0.200	0.45	Yes	0.172	0.134	0.31	Yes	0.767	0.228	1.00	Yes	0.762	0.163	0.93	Yes	1.00	**3.10**
		U_{22} - U_{23}				313.57	-837.74	163	56	-1109	-506	-3	-9	407	83	0.243	0.205	0.45	Yes	0.172	0.138	0.32	Yes	0.770	0.226	1.00	Yes	0.765	0.161	0.93	Yes	1.00	**3.11**
		U_{23} - U_{24}				975.88	-887.67	429	417	-503	-738	-223	-27	679	-803	0.757	0.195	0.96	Yes	0.530	0.130	0.66	Yes	0.816	0.176	1.00	Yes	0.810	0.107	0.92	Yes	1.00	**7.96**
		U_{24} - U_{25}				816.09	-804.13	452	424	-670	-238	-211	2	353	-159	0.765	0.155	0.93	Yes	0.507	0.102	0.61	Yes	0.893	0.107	1.00	Yes	0.887	0.107	1.00	Yes	1.00	**6.42**
		U_{25} - U_{26}				867.01	-135.53	443	476	-168	57	-273	2	160	-255	0.870	0.121	1.00	Yes	0.571	0.077	0.65	Yes	0.161	0.125	0.29	Yes	0.160	0.081	0.25	Yes	1.00	**6.34**
		U_{26} - U_{27}				489.20	-210.30	-2420	1563	-532	99	605	-362	-290	-274	0.491	0.499	1.00	Yes	0.327	0.331	0.66	Yes	0.250	0.259	0.51	Yes	0.248	0.411	0.66	Yes	1.00	**14.74**
		U_{27} - U_{28}				1060.99	-----	-457	1273	-139	253	147	-542	-30	-279	0.782	0.217	1.00	Yes	0.520	0.143	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.07**
		U_{28} - U_{29}				1495.14	-----	-298	121	-381	-88	106	-551	143	-370	0.904	0.090	1.00	Yes	0.643	0.062	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.68**
		U_{29} - U_{30}				1295.09	-----	-397	3293	-19	1054	-500	-738	-310	-207	0.637	0.355	1.00	Yes	0.451	0.233	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.69**
		U_{30} - U_{31}				1294.48	-----	1090	41	3243	-634	-613	-339	-898	-447	0.637	0.362	1.00	Yes	0.451	0.238	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.76**
		U_{31} - U_{32}				1278.35	-----	35	508	-77	-274	-525	-274	-3	730	0.863	0.134	1.00	Yes	0.615	0.093	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.30**
		U_{32} - U_{33}				999.48	-----	521	340	805	-841	-111	-22	182	279	0.844	0.153	1.00	Yes	0.567	0.102	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.48**
		U_{33} - U_{34}				886.19	-724.24	482	375	-71	-920	-14	211	415	981	0.749	0.249	1.00	Yes	0.509	0.165	0.68	Yes	0.724	0.219	0.95	Yes	0.720	0.130	0.85	Yes	1.00	**5.89**
		U_{34} - U_{35}				448.16	-941.31	412	123	-62	-1078	179	150	590	462	0.329	0.195	0.53	Yes	0.223	0.132	0.36	Yes	0.817	0.177	1.00	Yes	0.812	0.131	0.95	Yes	1.00	**4.18**
		U_{35} - U_{36}				209.59	-1247.23	213	-104	-313	-906	96	86	360	438	0.121	0.133	0.26	Yes	0.085	0.088	0.18	Yes	0.852	0.146	1.00	Yes	0.846	0.096	0.95	Yes	1.00	**3.76**
		U_{36} - U_{37}				-----	-1378.94	-40	52	-745	-1565	85	-3	407	268	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.201	1.00	Yes	0.785	0.139	0.93	Yes	1.00	**3.30**
		U_{37} - U_{38}				-----	-1377.67	142	-128	-1453	-951	41	23	323	232	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.203	1.00	Yes	0.784	0.130	0.92	Yes	1.00	**3.29**
		U_{38} - U_{39}				-----	-1636.86	186	-265	-729	-1265	129	-26	540	-68	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.148	1.00	Yes	0.840	0.105	0.95	Yes	1.00	**3.85**
		U_{39} - U_{40}				-----	-1568.46	-213	-298	-1529	-946	60	11	443	93	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.186	1.00	Yes	0.805	0.127	0.94	Yes	1.00	**3.90**
		U_{40} - U_{41}				-----	-1461.59	-216	-306	-1169	-800	58	-76	394	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.154	1.00	Yes	0.832	0.104	0.94	Yes	1.00	**4.18**
		U_{41} - U_{42}				-----	-1224.85	-1143	-3	-99	-158	393	-132	-72	-80	-----	-----	-----	-----	-----	-----	-----	-----	0.874	0.120	1.00	Yes	0.869	0.116	0.99	Yes	1.00	**4.78**
		U_{42} - U_{43}				-----	-815.89	-467	-30	-950	-318	-250	-270	493	-255	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.207	1.00	Yes	0.787	0.144	0.94	Yes	1.00	**7.87**
		U_{43} - U_{44}				-----	-533.44	-1739	2178	59	-318	151	-1063	-55	74	-----	-----	-----	-----	-----	-----	-----	-----	0.634	0.241	0.88	Yes	0.630	0.370	1.00	Yes	1.00	**8.08**
	Structure 3	U_0 - U_1				-----	-684.59	-24	-141	-211	-1109	-4	-39	-158	-226	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.219	1.00	Yes	0.770	0.223	1.00	Yes	1.00	**12.05**
		U_1 - U_2				-----	-752.09	-38	-133	139	-662	-64	-234	-69	-218	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.138	1.00	Yes	0.846	0.133	0.98	Yes	1.00	**4.87**
		U_2 - U_3				-----	-1101.60	-80	-157	37	-662	-52	342	-121	184	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.122	1.00	Yes	0.862	0.108	0.97	Yes	1.00	**4.56**
		U_3 - U_4				-----	-1445.69	-166	-290	-389	-928	351	553	228	260	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.160	1.00	Yes	0.829	0.102	0.94	Yes	1.00	**4.48**
		U_4 - U_5				-----	-1488.18	-400	-52	-646	-549	690	232	342	169	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.135	1.00	Yes	0.853	0.071	0.93	Yes	1.00	**3.77**
		U_5 - U_6				-----	-1365.14	-188	-282	-581	-1400	142	-148	260	313	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.204	1.00	Yes	0.783	0.154	0.94	Yes	1.00	**3.02**
		U_6 - U_7				-----	-1375.18	-380	-107	-1471	-455	-88	-186	397	57	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.197	1.00	Yes	0.788	0.162	0.96	Yes	1.00	**3.06**
		U_7 - U_8				3.72	-1243.97	-107	166	-591	-529	-105	-231	610	-1004	0.002	0.161	0.17	Yes	0.001	0.106	0.11	Yes	0.841	0.155	1.00	Yes	0.831	0.081	0.92	Yes	1.00	**7.55**
		U_8 - U_9				151.76	-909.53	8	347	-836	-51	-103	-176	246	-330	0.121	0.178	0.30	Yes	0.082	0.120	0.21	Yes	0.861	0.139	1.00	Yes	0.853	0.139	1.00	Yes	1.00	**6.57**
		U_9 - U_{10}				-----	-535.90	-1391	857	-200	81	453	-377	-39	-88	-----	-----	-----	-----	-----	-----	-----	-----	0.690	0.218	0.91	Yes	0.684	0.312	1.00	Yes	1.00	**11.19**
		U_{10} - U_{11}				689.86	-----	-391	687	14	60	236	-609	-34	-131	0.748	0.252	1.00	Yes	0.507	0.169	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.26**
		U_{11} - U_{12}				813.81	-----	-540	1569	-155	559	-211	-520	-217	-189	0.667	0.327	1.00	Yes	0.456	0.222	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.85**
		U_{12} - U_{13}				827.45	-----	703	202	2248	-931	-782	-461	-642	-258	0.573	0.420	1.00	Yes	0.400	0.287	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.52**
		U_{13} - U_{14}				880.45	-----	226	462	69	-96	-409	-212	-117	291	0.842	0.155	1.00	Yes	0.588	0.106	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.17**
		U_{14} - U_{15}				741.55	-241.49	484	359	306	-354	-144	-37	154	35	0.850	0.141	1.00	Yes	0.573	0.092	0.67	Yes	0.329	0.154	0.49	Yes	0.326	0.115	0.45	Yes	1.00	**5.49**
		U_{15} - U_{16}				506.57	-564.08	396	279	-144	-834	-70	136	91	458	0.581	0.276	0.86	Yes	0.398	0.189	0.59	Yes	0.768	0.228	1.00	Yes	0.761	0.198	0.96	Yes	1.00	**4.83**
		U_{16} - U_{17}				503.80	-570.70	464	176	-616	-406	59	81	445	215	0.577	0.222	0.80	Yes	0.396	0.152	0.55	Yes	0.777	0.215	1.00	Yes	0.770	0.146	0.92	Yes	1.00	**4.85**
		U_{17} - U_{18}				302.18	-615.74	414	-37	-289	-479	-96	65	316	-19	0.346	0.167	0.52	Yes	0.234	0.110	0.35	Yes	0.838	0.154	1.00	Yes	0.830	0.114	0.95	Yes	1.00	**4.58**
		U_{18} - U_{19}				145.70	-545.19	231	-28	-632	-333	-97	40	514	-17	0.167	0.237	0.41	Yes	0.115	0.162	0.28	Yes	0.742	0.255	1.00	Yes	0.735	0.150	0.89	Yes	1.00	**4.45**
		U_{19} - U_{20}				89.19	-525.81	-1092	1218	296	-459	415	-761	-216	239	0.102	0.418	0.53	Yes	0.070	0.286	0.36	Yes	0.715	0.161	0.88	Yes	0.709	0.290	1.00	Yes	1.00	**8.22**

Moment (End) AB Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Lower Chord	Structure 1	L_0 - L_1	-----	-169.43	-684	531	2057	-2311	-79	-291	-62	-228	-----	-----	-----	-----	-----	-----	-----	-----	0.308	0.528	0.84	Yes	0.305	0.694	1.00	Yes	1.00	**46.65**
		L_1 - L_2	484.07	-69.77	137	67	160	-740	-24	-65	-154	-85	0.741	0.255	1.00	Yes	0.452	0.172	0.63	Yes	0.127	0.130	0.26	Yes	0.126	0.222	0.35	Yes	1.00	**6.24**
		L_2 - L_3	722.66	-153.41	26	120	-469	-620	-41	48	-98	-53	0.831	0.165	1.00	Yes	0.481	0.099	0.59	Yes	0.210	0.185	0.40	Yes	0.208	0.150	0.36	Yes	1.00	**5.63**
		L_3 - L_4	692.87	-236.18	113	341	-282	-748	87	72	-70	-74	0.797	0.195	1.00	Yes	0.473	0.126	0.60	Yes	0.323	0.181	0.51	Yes	0.320	0.181	0.51	Yes	1.00	**4.52**
		L_4 - L_5	292.60	-335.47	-1433	1214	-588	282	-544	427	-865	1347	0.379	0.619	1.00	Yes	0.227	0.396	0.63	Yes	0.516	0.277	0.80	Yes	0.511	0.379	0.90	Yes	1.00	**10.63**
		L_5 - L_6	-----	-699.21	-80	672	-120	197	225	131	478	120	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.177	1.00	Yes	0.807	0.149	0.96	Yes	1.00	**4.37**
		L_6 - L_7	-----	-1138.15	-527	432	222	105	-64	173	126	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.927	0.039	0.97	Yes	0.916	0.083	1.00	Yes	1.00	**5.43**
		L_7 - L_8	-----	-1273.98	-21	1361	2	597	42	0	-64	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.182	1.00	Yes	0.807	0.180	0.99	Yes	1.00	**2.91**
		L_8 - L_9	-----	-1269.41	741	-19	1148	-76	-496	-352	-24	-239	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.185	1.00	Yes	0.804	0.152	0.96	Yes	1.00	**4.76**
		L_9 - L_{10}	-----	-1093.10	3	141	722	-503	261	228	-183	-271	-----	-----	-----	-----	-----	-----	-----	-----	0.889	0.076	0.97	Yes	0.880	0.113	1.00	Yes	1.00	**7.90**
		L_{10} - L_{11}	-----	-559.68	534	0	400	-505	98	7	95	-129	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.098	0.96	Yes	0.853	0.141	1.00	Yes	1.00	**5.31**
		L_{11} - L_{12}	556.68	-388.52	565	-112	488	-930	94	-35	19	-146	0.721	0.272	1.00	Yes	0.433	0.179	0.62	Yes	0.597	0.100	0.70	Yes	0.592	0.246	0.84	Yes	1.00	**7.16**
		L_{12} - L_{13}	1135.23	-65.75	220	-45	-168	-506	24	28	62	13	0.896	0.097	1.00	Yes	0.573	0.058	0.64	Yes	0.062	0.089	0.16	Yes	0.061	0.090	0.16	Yes	1.00	**6.63**
		L_{13} - L_{14}	1293.36	-----	354	-443	307	-1641	10	-3	-2	-143	0.761	0.238	1.00	Yes	0.493	0.145	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.36**
		L_{14} - L_{15}	1544.82	-----	-420	-15	-1820	-299	-93	-95	-324	31	0.755	0.242	1.00	Yes	0.490	0.147	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.64**
		L_{15} - L_{16}	1702.19	-----	-206	-352	-982	-1097	-129	-53	17	-376	0.832	0.159	1.00	Yes	0.534	0.093	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.85**
		L_{16} - L_{17}	1164.59	-----	-1366	196	-422	50	-690	96	-61	-49	0.736	0.262	1.00	Yes	0.478	0.162	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.29**
		L_{17} - L_{18}	857.81	-----	-915	389	-401	-99	-275	-558	251	-33	0.747	0.248	1.00	Yes	0.478	0.150	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.58**
		L_{18} - L_{19}	277.38	-201.48	-1276	935	-194	228	-904	381	28	-34	0.425	0.570	1.00	Yes	0.287	0.364	0.66	Yes	0.366	0.206	0.58	Yes	0.363	0.383	0.75	Yes	1.00	**11.82**
		L_{19} - L_{20}	69.82	-463.21	-530	259	-95	-28	145	33	-28	-6	0.107	0.189	0.30	Yes	0.065	0.127	0.20	Yes	0.841	0.116	0.96	Yes	0.834	0.159	1.00	Yes	1.00	**5.35**
	Structure 2	L_0 - L_1	9.19	-280.38	-189	178	1219	-2924	-45	-157	-21	-73	0.011	0.621	0.64	Yes	0.007	0.402	0.41	Yes	0.403	0.400	0.81	Yes	0.401	0.595	1.00	Yes	1.00	**24.73**
		L_1 - L_2	586.38	-----	130	-137	548	-1328	-62	-9	-94	-58	0.712	0.286	1.00	Yes	0.424	0.185	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.34**
		L_2 - L_3	1052.72	-----	-72	-100	140	-1064	62	83	-15	-26	0.830	0.163	1.00	Yes	0.544	0.096	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.66**
		L_3 - L_4	1427.77	-----	27	-378	-11	-1302	-21	39	-43	-19	0.839	0.156	1.00	Yes	0.565	0.096	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.18**
		L_4 - L_5	1828.70	-----	-386	-188	-824	-1308	90	222	-67	-139	0.853	0.139	1.00	Yes	0.564	0.082	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.92**
		L_5 - L_6	1932.46	-----	-125	-297	-755	-1765	127	-17	-115	-130	0.829	0.165	1.00	Yes	0.557	0.100	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.14**
		L_6 - L_7	1941.65	-----	-377	-25	-1698	-1853	-175	42	-95	198	0.822	0.175	1.00	Yes	0.546	0.102	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.65**
		L_7 - L_8	1396.74	-58.46	-185	345	-1573	-499	-128	8	-171	-298	0.801	0.198	1.00	Yes	0.526	0.117	0.65	Yes	0.040	0.191	0.24	Yes	0.039	0.174	0.22	Yes	1.00	**3.77**
		L_8 - L_9	1053.05	-661.31	104	707	-1050	98	-6	25	-344	1290	0.737	0.263	1.00	Yes	0.496	0.169	0.67	Yes	0.548	0.141	0.69	Yes	0.544	0.142	0.69	Yes	1.00	**6.49**
		L_9 - L_{10}	622.01	-816.53	-34	865	-862	11	39	113	442	-385	0.555	0.192	0.75	Yes	0.323	0.118	0.45	Yes	0.863	0.098	0.97	Yes	0.857	0.138	1.00	Yes	1.00	**5.86**
		L_{10} - L_{11}	-----	-752.44	-569	634	-223	369	-237	174	-38	20	-----	-----	-----	-----	-----	-----	-----	-----	0.890	0.056	0.95	Yes	0.884	0.111	1.00	Yes	1.00	**5.62**
		L_{11} - L_{12}	-----	-1014.11	-522	1171	-312	438	47	12	132	282	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.118	0.96	Yes	0.832	0.160	1.00	Yes	1.00	**3.60**
		L_{12} - L_{13}	-----	-1513.19	-400	-71	-385	-604	176	-94	70	108	-----	-----	-----	-----	-----	-----	-----	-----	0.913	0.081	1.00	Yes	0.905	0.060	0.97	Yes	1.00	**3.87**
		L_{13} - L_{14}	-----	-1516.60	-848	2686	-348	1243	-84	-284	-194	-335	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.180	0.95	Yes	0.763	0.235	1.00	Yes	1.00	**2.75**
		L_{14} - L_{15}	-----	-1514.68	1380	-419	2614	-939	-392	-264	-342	-187	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.173	0.95	Yes	0.762	0.228	1.00	Yes	1.00	**2.72**
		L_{15} - L_{16}	-----	-1492.20	-804	490	-191	-270	-655	-260	-672	-549	-----	-----	-----	-----	-----	-----	-----	-----	0.900	0.092	1.00	Yes	0.893	0.080	0.98	Yes	1.00	**11.21**
		L_{16} - L_{17}	-----	-1131.77	1251	195	1382	-470	506	267	-142	-328	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.157	0.99	Yes	0.824	0.170	1.00	Yes	1.00	**6.31**
		L_{17} - L_{18}	-----	-850.61	418	327	632	-406	125	-39	-97	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.899	0.076	0.98	Yes	0.893	0.101	1.00	Yes	1.00	**4.66**
		L_{18} - L_{19}	-----	-651.22	641	196	509	-423	-8	32	134	61	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.120	1.00	Yes	0.868	0.124	1.00	Yes	1.00	**4.31**
		L_{19} - L_{20}	248.14	-655.96	540	339	322	-629	40	-23	155	-90	0.281	0.145	0.43	Yes	0.166	0.092	0.26	Yes	0.880	0.115	1.00	Yes	0.874	0.121	1.00	Yes	1.00	**5.49**
		L_{20} - L_{21}	992.71	-883.25	784	370	-259	-1125	-122	-116	-39	-33	0.792	0.177	0.97	Yes	0.519	0.105	0.63	Yes	0.834	0.129	0.97	Yes	0.829	0.164	1.00	Yes	1.00	**9.28**
		L_{21} - L_{22}	854.29	-434.60	301	245	-284	-1995	-83	-5	-36	-193	0.681	0.312	1.00	Yes	0.456	0.195	0.66	Yes	0.411	0.251	0.67	Yes	0.408	0.291	0.70	Yes	1.00	**5.23**
		L_{22} - L_{23}	854.32	-366.93	229	274	-1958	-400	36	-22	-248	188	0.681	0.312	1.00	Yes	0.456	0.196	0.66	Yes	0.347	0.252	0.60	Yes	0.344	0.286	0.63	Yes	1.00	**5.20**
		L_{23} - L_{24}	990.49	-825.86	394	659	-867	-874	51	138	721	-261	0.790	0.205	1.00	Yes	0.518	0.126	0.65	Yes	0.780	0.187	0.97	Yes	0.775	0.128	0.91	Yes	1.00	**10.12**
		L_{24} - L_{25}	230.66	-638.28	526	377	-770	-11	164	-74	-287	290	0.261	0.193	0.46	Yes	0.155	0.122	0.28	Yes	0.856	0.090	0.95	Yes	0.851	0.149	1.00	Yes	1.00	**8.15**
		L_{25} - L_{26}	191.47	-653.94	283	643	-347	49	81	210	147	-134	0.217	0.156	0.38	Yes	0.125	0.093	0.22	Yes	0.877	0.117	1.00	Yes	0.872	0.124	1.00	Yes	1.00	**7.45**
		L_{26} - L_{27}	-----	-848.07	-454	657	-40	197	-209	133	30	22	-----	-----	-----	-----	-----	-----	-----	-----	0.897	0.058	0.96	Yes	0.891	0.105	1.00	Yes	1.00	**4.03**
		L_{27} - L_{28}	-----	-1161.86	-311	1225	-138	393	187	109	193	286	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.130	0.99	Yes	0.846	0.151	1.00	Yes	1.00	**3.67**
		L_{28} - L_{29}	-----	-1535.45	-118	-126	-121	-674	266	-66	-20	-25	-----	-----	-----	-----	-----	-----	-----	-----	0.926	0.072	1.00	Yes	0.918	0.067	0.99	Yes	1.00	**3.78**
		L_{29} - L_{30}	-----	-1533.92	-890	2571	-355	934	-72	-187	-91	-179	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.158	0.94	Yes	0.772	0.224	1.00	Yes	1.00	**3.02**
		L_{30} - L_{31}	-----	-1467.70	963	-349	2908	-1026	-214	-155	-203	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.180	0.93	Yes	0.739	0.254	1.00	Yes	1.00	**3.63**
		L_{31} - L_{32}	-----	-1494.93	-451	610	197	-818	-597	37	-542	58	-----	-----	-----	-----	-----	-----	-----	-----	0.902	0.094	1.00	Yes	0.894	0.081	0.98	Yes	1.00	**12.18**
		L_{32} - L_{33}	-----	-1044.10	1039	163	842	-781	-177	-125	398	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.130	1.00	Yes	0.856	0.142	1.00	Yes	1.00	**6.66**
		L_{33} - L_{34}	40.83	-723.01	404	209	430	-809	-29	-83	112	-32	0.041	0.156	0.20	Yes	0.024	0.099	0.13	Yes	0.855	0.067	0.93	Yes	0.849	0.141	1.00	Yes	1.00	**5.35**
		L_{34} - L_{35}	696.26	-759.29	745	99	190	-1210	-19	50	246	174	0.621	0.223	0.85	Yes	0.362	0.139	0.51	Yes	0.803	0.153	0.96	Yes	0.797	0.194	1.00	Yes	1.00	**6.95**
		L_{35} - L_{36}	1185.02	-452.82	480	92	129	-1101	89	-64	221	-33	0.829	0.169	1.00	Yes	0.558	0.106	0.67	Yes	0.375	0.114	0.49	Yes	0.373	0.148	0.53	Yes	1.00	**6.10**
		L_{36} - L_{37}	1412.33	-149.86	336	66	-439	-1601	-100	-4	-91	107	0.810	0.185	1.00	Yes	0.532	0.108	0.65	Yes	0.102	0.175	0.28	Yes	0.101	0.177	0.28	Yes	1.00	**4.83**
		L_{37} - L_{38}	1911.10	-----	28	-292	-1755	-1876	-27	-6	-93	-336	0.809	0.186	1.00	Yes	0.538	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.16**
		L_{38} - L_{39}	1881.06	-----	-166	-140	-1824	-1013	-49	1	-115	459	0.807	0.190	1.00	Yes	0.542	0.117	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.56**
		L_{39} - L_{40}	1768.03	-----	-147	-288	-1420	-1028	-43	-32	23	-536	0.824	0.170	1.00	Yes	0.546	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.17**
		L_{40} - L_{41}	1316.38	-----	-1160	39	-1519	-293	-500	218	-532	214	0.773	0.220	1.00	Yes	0.521	0.137	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.78**
		L_{41} - L_{42}	1011.40	-----	-1217	220	-45	-193	-112	-191	-36	-67	0.797	0.196	1.00	Yes	0.523	0.117	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.76**
		L_{42} - L_{43}	395.31	-----	-1960	647	-55	-114	-556	733	-124	-153	0.480	0.519	1.00	Yes	0.286	0.331	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.41**
		L_{43} - L_{44}	219.51	-473.99	-1569	541	-61	-17	644	188	-155	-45	0.267	0.425	0.70	Yes	0.159	0.270	0.43	Yes	0.682	0.269	0.96	Yes	0.677	0.319	1.00	Yes	1.00	**11.46**
	Structure 3	L_0 - L_1	140.66	-408.54	8	-103	602	-879	-7	-34	34	153	0.215	0.296	0.52	Yes	0.131	0.199	0.34	Yes	0.742	0.150	0.90	Yes	0.736	0.264	1.00	Yes	1.00	**9.92**
		L_1 - L_2	288.99	-----	78	-122	1031	-1713	-65	4	111	174	0.442	0.550	1.00	Yes	0.299	0.341	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**19.88**
		L_2 - L_3	910.39	-----	-67	-138	265	-960	33	27	120	116	0.793	0.200	1.00	Yes	0.507	0.120	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.94**
		L_3 - L_4	1296.68	-----	58	-346	118	-1183	29	51	41	5	0.820	0.178	1.00	Yes	0.532	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.11**
		L_4 - L_5	1760.51	-----	-382	-160	-909	-954	116	232	-111	-172	0.860	0.131	1.00	Yes	0.552	0.077	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.77**
		L_5 - L_6	1546.99	-----	-82	-347	-294	-1880	142	78	-95	-137	0.756	0.237	1.00	Yes	0.491	0.143	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.89**
		L_6 - L_7	1307.97	-----	-344	338	-1149	-20	-189	26	-698	801	0.769	0.225	1.00	Yes	0.498	0.139	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.42**
		L_7 - L_8	1110.56	-----	-67	150	-530	-309	-25	44	167	4	0.876	0.114	1.00	Yes	0.561	0.068	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.51**
		L_8 - L_9	233.91	-----	-1896	1332	-261	195	-795	1107	-47	45	0.303	0.696	1.00	Yes	0.182	0.450	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**18.32**
		L_9 - L_{10}	60.19	-540.53	-488	635	-315	128	163	128	248	115	0.078	0.211	0.29	Yes	0.045	0.127	0.18	Yes	0.831	0.090	0.93	Yes	0.824	0.168	1.00	Yes	1.00	**5.74**
		L_{10} - L_{11}	-----	-1079.16	-783	714	195	72	-211	84	148	-210	-----	-----	-----	-----	-----	-----	-----	-----	0.878	0.049	0.93	Yes	0.869	0.123	1.00	Yes	1.00	**8.73**
		L_{11} - L_{12}	-----	-1256.66	-73	1245	-40	474	-234	-401	-169	-208	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.186	1.00	Yes	0.796	0.165	0.97	Yes	1.00	**3.14**
		L_{12} - L_{13}	-----	-1231.68	588	-11	1294	-60	-457	-353	-449	-278	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.201	1.00	Yes	0.780	0.171	0.96	Yes	1.00	**3.16**
		L_{13} - L_{14}	-----	-1158.13	-132	294	301	-239	-128	198	-285	-102	-----	-----	-----	-----	-----	-----	-----	-----	0.943	0.050	1.00	Yes	0.932	0.047	0.98	Yes	1.00	**5.18**
		L_{14} - L_{15}	-----	-744.03	568	168	329	-155	141	-29	99	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.124	1.00	Yes	0.858	0.126	0.99	Yes	1.00	**3.46**
		L_{15} - L_{16}	75.31	-550.76	420	197	332	-509	-4	-46	-84	-109	0.098	0.154	0.26	Yes	0.059	0.101	0.16	Yes	0.847	0.146	1.00	Yes	0.839	0.135	0.98	Yes	1.00	**3.14**
		L_{16} - L_{17}	692.64	-394.43	472	75	-696	-420	113	-69	23	179	0.797	0.197	1.00	Yes	0.473	0.127	0.61	Yes	0.539	0.148	0.69	Yes	0.534	0.168	0.71	Yes	1.00	**5.12**
		L_{17} - L_{18}	712.45	-270.77	206	52	-625	-597	-3	18	175	-90	0.820	0.179	1.00	Yes	0.474	0.107	0.59	Yes	0.370	0.204	0.58	Yes	0.366	0.151	0.52	Yes	1.00	**5.87**
		L_{18} - L_{19}	425.88	-104.30	-810	85	170	-40	-280	464	68	-173	0.652	0.343	1.00	Yes	0.398	0.227	0.63	Yes	0.189	0.181	0.38	Yes	0.188	0.243	0.44	Yes	1.00	**6.33**
		L_{19} - L_{20}	45.08	-297.87	-1278	747	203	-324	1132	308	22	6	0.069	0.627	0.70	Yes	0.041	0.377	0.42	Yes	0.541	0.454	1.00	Yes	0.536	0.384	0.93	Yes	1.00	**23.98**

Moment (End) AB Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

				Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
						Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
				Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
				(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-314.48	-198	262	-38	66	54	17	-77	-25	-----	-----	-----	-----	-----	-----	-----	-----	0.702	0.145	0.85	Yes	0.665	0.334	1.00	Yes	1.00	**3.22**
		$U_1 - L_1$	60.35	-335.94	-200	223	53	-42	-81	6	-13	-26	0.109	0.308	0.42	Yes	0.060	0.169	0.23	Yes	0.734	0.101	0.84	Yes	0.711	0.285	1.00	Yes	1.00	**5.20**
		$U_2 - L_2$	159.37	-307.30	-220	274	137	-153	60	63	143	42	0.287	0.391	0.68	Yes	0.158	0.215	0.38	Yes	0.672	0.143	0.82	Yes	0.650	0.350	1.00	Yes	1.00	**7.76**
		$U_3 - L_3$	285.15	-263.38	-255	297	224	-262	202	141	342	102	0.513	0.478	1.00	Yes	0.282	0.263	0.55	Yes	0.577	0.182	0.76	Yes	0.557	0.379	0.94	Yes	1.00	**12.21**
		$U_4 - L_4$	-----	-351.02	65	-64	192	-194	-5	-22	473	166	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.181	0.96	Yes	0.743	0.248	1.00	Yes	1.00	**5.02**
		$U_5 - L_5$	-----	-419.58	77	-90	239	-264	-202	-62	97	63	-----	-----	-----	-----	-----	-----	-----	-----	0.759	0.128	0.89	Yes	0.724	0.268	1.00	Yes	1.00	**3.26**
		$U_6 - L_6$	-----	-496.37	86	-79	234	-259	-226	-36	934	234	-----	-----	-----	-----	-----	-----	-----	-----	0.752	0.246	1.00	Yes	0.712	0.226	0.94	Yes	1.00	**3.28**
		$U_7 - L_7$	-----	-430.61	133	-150	305	-331	-146	39	205	70	-----	-----	-----	-----	-----	-----	-----	-----	0.720	0.139	0.86	Yes	0.664	0.326	1.00	Yes	1.00	**2.52**
		$U_8 - L_8$	-----	-1194.03	-336	393	402	-494	-966	-289	1083	331	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.128	1.00	Yes	0.828	0.092	0.92	Yes	1.00	**6.09**
		$U_9 - L_9$	-----	-647.32	-410	470	-175	207	-230	-174	-246	-98	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.127	0.90	Yes	0.731	0.262	1.00	Yes	1.00	**3.48**
		$U_{10} - L_{10}$	-----	-753.88	-351	365	-127	103	-828	-679	-602	-293	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.211	1.00	Yes	0.744	0.189	0.94	Yes	1.00	**4.71**
		$U_{11} - L_{11}$	-----	-661.37	-385	487	-146	197	-376	-370	-545	-375	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.170	0.97	Yes	0.770	0.226	1.00	Yes	1.00	**3.97**
		$U_{12} - L_{12}$	-----	-531.13	-309	315	-126	121	-107	-189	-330	-236	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.150	0.92	Yes	0.729	0.269	1.00	Yes	1.00	**3.64**
		$U_{13} - L_{13}$	-----	-366.41	-231	259	-79	99	-1	-6	-44	4	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.098	0.84	Yes	0.702	0.296	1.00	Yes	1.00	**2.92**
		$U_{14} - L_{14}$	-----	-366.15	-137	158	-44	52	448	67	-36	-16	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.175	1.00	Yes	0.775	0.202	0.98	Yes	1.00	**5.77**
		$U_{15} - L_{15}$	89.28	-293.91	-64	61	270	-292	-66	-48	283	202	0.161	0.455	0.62	Yes	0.088	0.250	0.34	Yes	0.659	0.218	0.88	Yes	0.622	0.373	1.00	Yes	1.00	**7.20**
		$U_{16} - L_{16}$	-----	-307.60	23	-27	214	-227	-80	-100	1100	-53	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.307	1.00	Yes	0.651	0.290	0.95	Yes	1.00	**3.79**
		$U_{17} - L_{17}$	-----	-433.08	56	-71	219	-241	-120	-108	198	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.110	0.92	Yes	0.747	0.244	1.00	Yes	1.00	**3.04**
		$U_{18} - L_{18}$	-----	-535.39	137	-144	419	-437	-130	-114	214	-204	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.090	0.88	Yes	0.745	0.248	1.00	Yes	1.00	**3.34**
		$U_{19} - L_{19}$	-----	-633.27	163	-162	557	-534	-111	-41	253	-56	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.116	0.91	Yes	0.737	0.258	1.00	Yes	1.00	**3.84**
		$U_{20} - L_{20}$	-----	-584.16	158	-257	281	-474	25	3	597	78	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.227	1.00	Yes	0.680	0.220	0.91	Yes	1.00	**2.68**
	Structure 2	$U_0 - L_0$	-----	-690.95	-485	596	-143	187	36	6	-77	-13	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.117	0.95	Yes	0.740	0.253	1.00	Yes	1.00	**4.06**
		$U_1 - L_1$	-----	-726.99	-479	512	-94	101	-100	24	-120	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.077	0.91	Yes	0.779	0.217	1.00	Yes	1.00	**4.79**
		$U_2 - L_2$	-----	-589.21	-455	472	-83	93	-9	-1	-95	-45	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.079	0.87	Yes	0.751	0.241	1.00	Yes	1.00	**4.14**
		$U_3 - L_3$	-----	-494.57	-223	241	-42	49	-43	-19	100	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.079	0.93	Yes	0.776	0.219	1.00	Yes	1.00	**3.61**
		$U_4 - L_4$	-----	-341.81	-203	210	4	4	-83	-8	284	85	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.162	0.94	Yes	0.723	0.269	1.00	Yes	1.00	**3.82**
		$U_5 - L_5$	101.47	-334.85	-196	226	76	-72	-48	-35	315	189	0.182	0.381	0.57	Yes	0.100	0.209	0.31	Yes	0.756	0.211	0.97	Yes	0.709	0.289	1.00	Yes	1.00	**5.39**
		$U_6 - L_6$	270.33	-282.84	-299	312	172	-192	164	-38	362	253	0.486	0.504	1.00	Yes	0.267	0.277	0.55	Yes	0.637	0.245	0.89	Yes	0.598	0.399	1.00	Yes	1.00	**11.19**
		$U_7 - L_7$	-----	-267.59	52	-59	278	-322	37	6	999	199	-----	-----	-----	-----	-----	-----	-----	-----	0.604	0.390	1.00	Yes	0.566	0.412	0.98	Yes	1.00	**15.33**
		$U_8 - L_8$	-----	-457.50	115	-127	372	-389	-62	-112	127	-57	-----	-----	-----	-----	-----	-----	-----	-----	0.663	0.112	0.78	Yes	0.659	0.341	1.00	Yes	1.00	**4.56**
		$U_9 - L_9$	-----	-696.91	199	-199	549	-584	-105	-119	1382	171	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.201	0.98	Yes	0.747	0.248	1.00	Yes	1.00	**4.70**
		$U_{10} - L_{10}$	-----	-785.81	183	-183	547	-582	-134	-69	336	-171	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.100	0.88	Yes	0.735	0.257	1.00	Yes	1.00	**4.64**
		$U_{11} - L_{11}$	-----	-817.07	185	-183	513	-534	-162	-42	142	-175	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.098	0.93	Yes	0.764	0.236	1.00	Yes	1.00	**4.05**
		$U_{12} - L_{12}$	-----	-882.99	145	-115	517	-530	-127	32	234	-44	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.106	0.96	Yes	0.765	0.227	1.00	Yes	1.00	**4.07**
		$U_{13} - L_{13}$	-----	-680.52	215	-219	548	-541	-137	8	796	100	-----	-----	-----	-----	-----	-----	-----	-----	0.759	0.241	1.00	Yes	0.656	0.262	0.92	Yes	1.00	**3.11**
		$U_{14} - L_{14}$	-----	-1112.14	-308	285	658	-628	-641	-23	1043	657	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.183	1.00	Yes	0.737	0.116	0.86	Yes	1.00	**5.41**
		$U_{15} - L_{15}$	-----	-696.76	-666	661	-77	89	-34	60	-314	34	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.162	0.94	Yes	0.672	0.319	1.00	Yes	1.00	**5.55**
		$U_{16} - L_{16}$	-----	-702.24	-464	414	-61	33	-602	-241	-820	-248	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.184	1.00	Yes	0.753	0.197	0.95	Yes	1.00	**3.99**
		$U_{17} - L_{17}$	-----	-640.71	-543	533	-118	108	-298	-303	-483	-306	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.156	0.95	Yes	0.746	0.252	1.00	Yes	1.00	**3.57**
		$U_{18} - L_{18}$	-----	-606.62	-412	438	-113	100	69	-203	-188	-188	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.086	0.90	Yes	0.773	0.224	1.00	Yes	1.00	**3.22**
		$U_{19} - L_{19}$	-----	-480.05	-287	290	-73	71	-123	-151	-177	-100	-----	-----	-----	-----	-----	-----	-----	-----	0.722	0.105	0.83	Yes	0.717	0.279	1.00	Yes	1.00	**3.93**
		$U_{20} - L_{20}$	-----	-385.08	-216	228	-42	40	-20	-99	-202	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.131	0.93	Yes	0.738	0.260	1.00	Yes	1.00	**4.06**
		$U_{21} - L_{21}$	-----	-315.43	-239	256	-29	30	44	3	-84	-16	-----	-----	-----	-----	-----	-----	-----	-----	0.713	0.115	0.83	Yes	0.667	0.328	1.00	Yes	1.00	**4.58**
		$U_{22} - L_{22}$	-----	-284.27	-168	197	129	-144	939	265	1041	296	-----	-----	-----	-----	-----	-----	-----	-----	0.640	0.351	1.00	Yes	0.602	0.252	0.86	Yes	1.00	**17.24**
		$U_{23} - L_{23}$	-----	-302.86	14	-15	260	-274	-100	-4	234	158	-----	-----	-----	-----	-----	-----	-----	-----	0.684	0.173	0.86	Yes	0.641	0.351	1.00	Yes	1.00	**5.66**
		$U_{24} - L_{24}$	-----	-340.05	43	-48	198	-215	-70	-8	1001	95	-----	-----	-----	-----	-----	-----	-----	-----	0.697	0.300	1.00	Yes	0.651	0.245	0.90	Yes	1.00	**3.43**
		$U_{25} - L_{25}$	-----	-469.35	53	-49	309	-305	-92	10	383	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.706	0.120	0.83	Yes	0.701	0.297	1.00	Yes	1.00	**3.74**
		$U_{26} - L_{26}$	-----	-592.93	82	-75	428	-466	-136	26	446	22	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.122	0.92	Yes	0.756	0.238	1.00	Yes	1.00	**3.34**
		$U_{27} - L_{27}$	-----	-632.07	81	-78	563	-566	-186	53	251	157	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.094	0.88	Yes	0.736	0.263	1.00	Yes	1.00	**3.63**
		$U_{28} - L_{28}$	-----	-683.79	55	-34	477	-455	-230	74	1116	158	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.207	1.00	Yes	0.733	0.202	0.94	Yes	1.00	**3.54**
		$U_{29} - L_{29}$	-----	-694.55	101	-111	664	-652	-173	37	484	103	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.218	1.00	Yes	0.670	0.318	0.99	Yes	1.00	**4.69**
		$U_{30} - L_{30}$	-----	-1179.90	-732	664	741	-733	-1044	226	1439	118	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.137	1.00	Yes	0.782	0.131	0.92	Yes	1.00	**8.58**
		$U_{31} - L_{31}$	-----	-740.03	-580	576	-97	97	-49	35	-313	-20	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.162	0.99	Yes	0.713	0.278	1.00	Yes	1.00	**4.87**
		$U_{32} - L_{32}$	-----	-838.54	-434	393	-78	53	-476	-235	-685	-264	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.189	1.00	Yes	0.727	0.186	0.92	Yes	1.00	**4.31**
		$U_{33} - L_{33}$	-----	-846.28	-416	433	-119	105	-28	-273	-436	-348	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.146	1.00	Yes	0.791	0.191	0.99	Yes	1.00	**4.30**
		$U_{34} - L_{34}$	-----	-807.49	-504	541	-125	111	-220	-389	-320	-333	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.126	0.93	Yes	0.755	0.239	1.00	Yes	1.00	**5.66**
		$U_{35} - L_{35}$	-----	-704.90	-516	554	-148	144	-31	-101	-120	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.071	0.86	Yes	0.755	0.235	1.00	Yes	1.00	**5.20**
		$U_{36} - L_{36}$	-----	-473.35	-339	357	-82	92	105	35	89	71	-----	-----	-----	-----	-----	-----	-----	-----	0.686	0.101	0.79	Yes	0.682	0.312	1.00	Yes	1.00	**4.31**
		$U_{37} - L_{37}$	-----	-259.57	-296	350	-42	50	661	159	75	31	-----	-----	-----	-----	-----	-----	-----	-----	0.586	0.327	0.92	Yes	0.549	0.447	1.00	Yes	1.00	**14.80**
		$U_{38} - L_{38}$	300.73	-177.72	-230	254	258	-255	219	119	432	374	0.541	0.455	1.00	Yes	0.297	0.250	0.55	Yes	0.400	0.190	0.59	Yes	0.376	0.330	0.71	Yes	1.00	**13.98**
		$U_{39} - L_{39}$	93.96	-278.26	-82	80	158	-184	61	0	1245	51	0.169	0.596	0.77	Yes	0.093	0.328	0.43	Yes	0.629	0.365	1.00	Yes	0.589	0.236	0.83	Yes	1.00	**4.98**
		$U_{40} - L_{40}$	33.29	-338.90	-30	23	214	-217	13	-23	304	-81	0.060	0.366	0.43	Yes	0.033	0.201	0.24	Yes	0.769	0.122	0.90	Yes	0.717	0.278	1.00	Yes	1.00	**4.01**
		$U_{41} - L_{41}$	-----	-484.95	12	-16	238	-252	10	-20	204	-121	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.085	0.92	Yes	0.761	0.230	1.00	Yes	1.00	**3.70**
		$U_{42} - L_{42}$	-----	-586.32	35	-44	472	-487	11	-27	269	-168	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.077	0.87	Yes	0.747	0.249	1.00	Yes	1.00	**4.01**
		$U_{43} - L_{43}$	-----	-699.60	52	-66	576	-573	-58	-58	333	91	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.106	0.91	Yes	0.750	0.244	1.00	Yes	1.00	**4.41**
		$U_{44} - L_{44}$	-----	-637.02	109	-121	283	-456	-161	-27	937	159	-----	-----	-----	-----	-----	-----	-----	-----	0.763	0.232	1.00	Yes	0.683	0.193	0.88	Yes	1.00	**3.32**
	Structure 3	$U_0 - L_0$	-----	-636.05	-483	556	-134	181	230	30	-59	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.153	1.00	Yes	0.740	0.258	1.00	Yes	1.00	**4.56**
		$U_1 - L_1$	-----	-668.30	-449	474	-104	116	-19	128	-119	-3	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.081	0.92	Yes	0.778	0.220	1.00	Yes	1.00	**5.22**
		$U_2 - L_2$	-----	-543.00	-404	423	-102	108	21	26	-142	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.088	0.89	Yes	0.755	0.239	1.00	Yes	1.00	**4.35**
		$U_3 - L_3$	-----	-447.95	-197	218	-41	54	1	-21	50	-62	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.083	0.93	Yes	0.773	0.222	1.00	Yes	1.00	**3.71**
		$U_4 - L_4$	-----	-329.29	-218	232	-11	17	-40	14	232	50	-----	-----	-----	-----	-----	-----	-----	-----	0.742	0.147	0.89	Yes	0.697	0.296	1.00	Yes	1.00	**4.46**
		$U_5 - L_5$	60.06	-307.38	-247	267	47	-44	-4	19	229	155	0.108	0.408	0.52	Yes	0.059	0.225	0.29	Yes	0.689	0.185	0.88	Yes	0.650	0.342	1.00	Yes	1.00	**5.85**
		$U_6 - L_6$	-----	-284.78	36	-38	88	-94	1162	392	383	61	-----	-----	-----	-----	-----	-----	-----	-----	0.635	0.361	1.00	Yes	0.603	0.120	0.73	Yes	1.00	**4.32**
		$U_7 - L_7$	-----	-358.94	69	-82	246	-266	-8	-83	86	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.726	0.107	0.84	Yes	0.688	0.304	1.00	Yes	1.00	**3.54**
		$U_8 - L_8$	-----	-511.04	111	-108	307	-317	-61	-120	1118	216	-----	-----	-----	-----	-----	-----	-----	-----	0.738	0.255	1.00	Yes	0.701	0.271	0.98	Yes	1.00	**3.68**
		$U_9 - L_9$	-----	-652.29	130	-169	416	-513	-180	-136	239	-72	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.121	0.91	Yes	0.759	0.238	1.00	Yes	1.00	**4.03**
		$U_{10} - L_{10}$	-----	-778.85	134	-109	392	-431	-13	40	333	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.088	0.90	Yes	0.768	0.224	1.00	Yes	1.00	**4.65**
		$U_{11} - L_{11}$	-----	-644.05	168	-193	429	-488	-111	-11	361	135	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.147	0.92	Yes	0.727	0.271	1.00	Yes	1.00	**3.26**
		$U_{12} - L_{12}$	-----	-1146.73	-251	265	439	-577	-674	-107	1131	524	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.163	1.00	Yes	0.795	0.107	0.91	Yes	1.00	**5.78**
		$U_{13} - L_{13}$	-----	-442.54	-291	314	-70	81	-28	45	-209	-2	-----	-----	-----	-----	-----	-----	-----	-----	0.740	0.144	0.89	Yes	0.683	0.309	1.00	Yes	1.00	**3.83**
		$U_{14} - L_{14}$	-----	-516.23	-231	248	-46	25	-721	-481	-725	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.217	1.00	Yes	0.740	0.217	0.96	Yes	1.00	**4.83**
		$U_{15} - L_{15}$	-----	-438.66	-228	239	-51	50	-311	-269	-456	-298	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.191	0.99	Yes	0.757	0.242	1.00	Yes	1.00	**3.72**
		$U_{16} - L_{16}$	-----	-351.02	-191	197	-52	52	173	-41	-114	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.121	0.90	Yes	0.743	0.252	1.00	Yes	1.00	**5.11**
		$U_{17} - L_{17}$	309.87	-212.99	-269	311	204	-223	-26	100	-46	140	0.557	0.438	1.00	Yes	0.307	0.241	0.55	Yes	0.467	0.131	0.60	Yes	0.451	0.397	0.85	Yes	1.00	**13.19**
		$U_{18} - L_{18}$	141.94	-247.98	-130	146	152	-196	-149	21	1601	370	0.255	0.715	0.98	Yes	0.140	0.393	0.54	Yes	0.542	0.449	1.00	Yes	0.525	0.251	0.78	Yes	1.00	**5.72**
		$U_{19} - L_{19}$	84.65	-313.97	-87	72	261	-243	-91	20	254	52	0.152	0.408	0.57	Yes	0.084	0.224	0.31	Yes	0.686	0.144	0.83	Yes	0.664	0.334	1.00	Yes	1.00	**4.60**
		$U_{20} - L_{20}$	11.02	-309.04	13	-15	61	-170	-74	-24	676	217	0.020	0.413	0.44	Yes	0.012	0.227	0.24	Yes	0.690	0.306	1.00	Yes	0.654	0.217	0.88	Yes	1.00	**2.67**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

					Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression											
	Vehicle	Pedestrian	Max.	Max.	Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
DL Factor:	1.300	1.300	Tension	Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
LL Factor:	1.300	1.300	(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																					
North Truss - Diagonals	Structure 1	$U_0 - L_1$	625.82	-70.93	-125	72	-4	-11	-36	-93	18	48	0.821	0.169	1.00	Yes	0.496	0.093	0.59	Yes	0.121	0.096	0.22	Yes	0.109	0.146	0.26	Yes	1.00	**5.89**
		$U_1 - L_2$	461.14	-168.31	-90	9	31	-25	-163	-120	34	20	0.829	0.162	1.00	Yes	0.456	0.089	0.55	Yes	0.386	0.149	0.54	Yes	0.356	0.115	0.48	Yes	1.00	**6.38**
		$U_2 - L_3$	419.19	-106.81	-155	2	-33	-46	-121	-137	83	-2	0.754	0.238	1.00	Yes	0.415	0.131	0.55	Yes	0.246	0.207	0.46	Yes	0.226	0.198	0.43	Yes	1.00	**10.68**
		$U_3 - L_4$	-----	-323.13	55	-6	-70	-113	126	128	-154	-378	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.260	1.00	Yes	0.684	0.145	0.83	Yes	1.00	**7.04**
		$U_4 - L_4$	538.45	-----	-7	67	-106	0	48	4	-421	-370	0.790	0.206	1.00	Yes	0.434	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.21**
		$U_4 - L_5$	620.95	-----	-150	255	-49	100	-632	-181	32	-33	0.734	0.260	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
		$U_5 - L_6$	668.61	-----	-278	280	-93	100	-114	-222	152	47	0.790	0.200	1.00	Yes	0.435	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.65**
		$U_6 - L_7$	643.88	-----	-52	352	-11	132	38	-7	170	98	0.761	0.232	1.00	Yes	0.419	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.95**
		$U_5 - L_8$	917.93	-----	27	422	21	144	586	344	348	101	0.734	0.263	1.00	Yes	0.455	0.148	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.26**
		$U_8 - L_{10}$	973.79	-----	-264	307	-76	88	633	554	174	137	0.778	0.217	1.00	Yes	0.482	0.123	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.16**
		$U_{10} - L_{11}$	967.05	-----	-184	254	-83	95	401	462	34	147	0.817	0.178	1.00	Yes	0.506	0.100	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.66**
		$U_{11} - L_{12}$	844.77	-----	-231	153	-91	39	357	366	42	104	0.836	0.162	1.00	Yes	0.460	0.089	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.37**
		$U_{12} - L_{13}$	647.47	-----	-202	173	-85	63	163	72	-13	-34	0.789	0.209	1.00	Yes	0.497	0.117	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.70**
		$U_{13} - L_{14}$	457.36	-----	-106	30	-32	11	26	-60	-65	-112	0.823	0.168	1.00	Yes	0.452	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.63**
		$U_{15} - L_{14}$	148.90	-31.73	-1	-30	-189	-225	-129	-135	-1536	-665	0.268	0.732	1.00	Yes	0.147	0.403	0.55	Yes	0.074	0.708	0.79	Yes	0.067	0.287	0.36	Yes	1.00	**21.21**
		$U_{16} - L_{15}$	298.05	-12.90	-119	72	-11	-6	-1058	-212	-84	-81	0.536	0.459	1.00	Yes	0.295	0.252	0.55	Yes	0.031	0.328	0.36	Yes	0.027	0.152	0.18	Yes	1.00	**4.17**
		$U_{17} - L_{16}$	490.40	-----	-138	89	-32	12	-576	-535	-105	-126	0.719	0.274	1.00	Yes	0.396	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.08**
		$U_{18} - L_{17}$	584.05	-----	-303	244	-109	73	-743	-523	-106	-113	0.690	0.306	1.00	Yes	0.380	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		$U_{19} - L_{18}$	641.89	-----	-338	249	-130	85	-757	-532	-61	-101	0.695	0.298	1.00	Yes	0.382	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.20**
		$U_{20} - L_{19}$	672.99	-----	-168	224	-93	90	-896	-377	-90	-35	0.729	0.262	1.00	Yes	0.401	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.52**
	Structure 2	$U_0 - L_1$	797.12	-----	-423	390	-96	81	-22	-70	-54	-30	0.789	0.207	1.00	Yes	0.434	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.99**
		$U_1 - L_2$	799.77	-----	-393	327	-72	51	-128	-43	-81	-7	0.791	0.202	1.00	Yes	0.435	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.06**
		$U_2 - L_3$	658.01	-----	-348	277	-62	46	-21	-17	1	111	0.778	0.217	1.00	Yes	0.428	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.28**
		$U_3 - L_4$	591.87	-----	-191	137	-24	4	-38	-45	134	75	0.789	0.202	1.00	Yes	0.434	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.12**
		$U_4 - L_5$	429.01	-86.69	-149	102	17	-25	-111	-12	105	-95	0.772	0.222	1.00	Yes	0.424	0.122	0.55	Yes	0.214	0.091	0.31	Yes	0.183	0.190	0.38	Yes	1.00	**4.95**
		$U_5 - L_6$	425.81	-220.16	-139	60	66	-64	-71	3	11	-173	0.766	0.228	1.00	Yes	0.421	0.125	0.55	Yes	0.520	0.180	0.70	Yes	0.466	0.177	0.65	Yes	1.00	**7.09**
		$U_6 - L_7$	-----	-389.16	9	-31	31	-110	-107	-202	128	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.166	1.00	Yes	0.746	0.126	0.88	Yes	1.00	**8.39**
		$U_8 - L_7$	477.39	-----	-161	119	-96	34	-466	-380	-1174	-797	0.609	0.384	1.00	Yes	0.383	0.223	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.72**
		$U_8 - L_9$	608.62	-----	-309	195	-126	91	-1068	-455	-158	-170	0.659	0.334	1.00	Yes	0.363	0.184	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.39**
		$U_{10} - L_9$	758.06	-----	-320	202	-111	87	-614	-667	-110	-140	0.750	0.248	1.00	Yes	0.412	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.73**
		$U_{11} - L_{10}$	825.13	-----	-336	266	-127	118	-716	-542	-31	-106	0.752	0.241	1.00	Yes	0.413	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		$U_{12} - L_{11}$	876.28	-----	-343	366	-138	151	-335	-262	55	-19	0.798	0.201	1.00	Yes	0.439	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.49**
		$U_{13} - L_{12}$	743.82	-----	-428	380	-143	146	-418	-240	375	157	0.736	0.261	1.00	Yes	0.405	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.00**
		$U_{14} - L_{13}$	710.23	-----	-202	441	4	147	-88	-243	584	217	0.703	0.292	1.00	Yes	0.386	0.161	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.90**
		$U_{14} - L_{15}$	582.62	-----	-112	392	60	38	464	44	244	-62	0.689	0.306	1.00	Yes	0.379	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.66**
		$U_{15} - L_{16}$	629.18	-----	-374	358	-30	38	208	131	-66	-19	0.744	0.250	1.00	Yes	0.409	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.48**
		$U_{16} - L_{17}$	705.16	-----	-305	373	-38	80	41	242	-219	101	0.764	0.230	1.00	Yes	0.420	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.64**
		$U_{17} - L_{18}$	649.70	-----	-283	298	-48	80	185	327	-47	176	0.768	0.228	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		$U_{18} - L_{19}$	619.91	-----	-304	308	-19	76	499	244	86	120	0.733	0.265	1.00	Yes	0.403	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.04**
		$U_{19} - L_{20}$	600.24	-----	-208	174	-10	40	236	214	16	87	0.765	0.234	1.00	Yes	0.421	0.131	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.82**
		$U_{20} - L_{21}$	437.11	-----	-132	112	-11	24	127	49	-24	31	0.786	0.206	1.00	Yes	0.432	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.48**
		$U_{21} - L_{22}$	413.83	-23.70	-134	57	-45	-51	288	105	213	-43	0.744	0.254	1.00	Yes	0.409	0.140	0.55	Yes	0.056	0.157	0.22	Yes	0.050	0.171	0.23	Yes	1.00	**10.75**
		$U_{23} - L_{22}$	352.32	-125.35	-126	40	-23	-70	-687	-334	-577	-165	0.634	0.360	1.00	Yes	0.349	0.198	0.55	Yes	0.299	0.326	0.63	Yes	0.265	0.161	0.43	Yes	1.00	**10.86**
		$U_{24} - L_{23}$	333.76	-----	-109	85	-26	19	-880	-168	-285	-168	0.600	0.395	1.00	Yes	0.330	0.217	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.85**
		$U_{25} - L_{24}$	548.53	-----	-193	161	-54	53	-605	-596	-326	-199	0.699	0.296	1.00	Yes	0.385	0.169	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		$U_{26} - L_{25}$	615.75	-----	-269	252	-60	76	-622	-422	20	-28	0.728	0.265	1.00	Yes	0.400	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.13**
		$U_{27} - L_{26}$	653.69	-----	-282	292	-39	81	-327	-243	262	120	0.773	0.225	1.00	Yes	0.425	0.124	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		$U_{28} - L_{27}$	648.92	-----	-298	354	-40	80	-662	-106	275	159	0.703	0.290	1.00	Yes	0.387	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.34**
		$U_{29} - L_{28}$	604.98	-----	-351	338	-54	61	-141	-241	451	236	0.715	0.280	1.00	Yes	0.393	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.53**
		$U_{30} - L_{29}$	614.92	-----	-152	387	30	61	-163	-71	284	156	0.727	0.271	1.00	Yes	0.400	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.85**
		$U_{30} - L_{31}$	701.72	-----	-170	479	33	60	512	77	282	-21	0.694	0.299	1.00	Yes	0.382	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.71**
		$U_{31} - L_{32}$	758.81	-----	-439	405	-60	69	251	149	-46	16	0.751	0.241	1.00	Yes	0.413	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.54**
		$U_{32} - L_{33}$	875.23	-----	-336	363	-55	97	98	328	-184	133	0.797	0.199	1.00	Yes	0.439	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.20**
		$U_{33} - L_{34}$	824.03	-----	-368	360	-70	91	610	442	20	219	0.751	0.240	1.00	Yes	0.413	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.15**
		$U_{34} - L_{35}$	810.30	-----	-328	227	-87	73	265	206	80	25	0.802	0.192	1.00	Yes	0.441	0.106	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.98**
		$U_{35} - L_{36}$	730.81	-----	-352	242	-100	72	125	45	0	-53	0.792	0.200	1.00	Yes	0.435	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.73**
		$U_{36} - L_{37}$	606.57	-----	-201	172	-48	44	228	100	-53	-106	0.773	0.226	1.00	Yes	0.487	0.127	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.98**
		$U_{38} - L_{37}$	-----	-365.65	8	-23	37	-92	-151	-128	-360	-92	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.209	1.00	Yes	0.700	0.105	0.81	Yes	1.00	**6.51**
		$U_{38} - L_{39}$	247.73	-193.63	-94	23	59	-56	-1408	-249	-35	-19	0.446	0.527	0.98	Yes	0.245	0.290	0.54	Yes	0.461	0.531	1.00	Yes	0.410	0.120	0.53	Yes	1.00	**6.14**
		$U_{40} - L_{39}$	368.97	-106.83	-136	87	25	-28	-496	-545	-37	-36	0.664	0.332	1.00	Yes	0.365	0.183	0.55	Yes	0.256	0.280	0.54	Yes	0.226	0.174	0.41	Yes	1.00	**4.82**
		$U_{41} - L_{40}$	529.39	-----	-170	120	-8	-6	-638	-411	-71	-60	0.706	0.289	1.00	Yes	0.388	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_{42} - L_{41}$	587.30	-----	-311	252	-34	19	-686	-479	-47	-45	0.694	0.300	1.00	Yes	0.382	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.76**
		$U_{43} - L_{42}$	715.18	-----	-384	302	-50	31	-734	-540	12	-31	0.708	0.288	1.00	Yes	0.389	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.02**
		$U_{44} - L_{43}$	727.75	-----	-198	285	-88	70	-956	-303	82	-18	0.720	0.275	1.00	Yes	0.396	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.20**
	Structure 3	$U_0 - L_1$	700.88	-----	-422	338	-108	89	28	-133	-64	-53	0.759	0.238	1.00	Yes	0.418	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.16**
		$U_1 - L_2$	726.80	-----	-342	269	-92	61	-175	-74	-127	-45	0.787	0.204	1.00	Yes	0.433	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.42**
		$U_2 - L_3$	660.62	-----	-350	269	-88	55	-16	-4	-47	80	0.781	0.213	1.00	Yes	0.430	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.08**
		$U_3 - L_4$	557.27	-----	-161	111	-24	5	2	-30	77	49	0.817	0.181	1.00	Yes	0.449	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.52**
		$U_4 - L_5$	432.51	-50.05	-149	103	-2	-14	-94	-53	52	-106	0.778	0.221	1.00	Yes	0.428	0.121	0.55	Yes	0.119	0.091	0.21	Yes	0.106	0.190	0.30	Yes	1.00	**5.70**
		$U_5 - L_6$	377.32	-20.73	-2	-25	-202	-134	-59	-194	-171	-181	0.679	0.315	1.00	Yes	0.373	0.173	0.55	Yes	0.049	0.278	0.33	Yes	0.044	0.259	0.31	Yes	1.00	**16.42**
		$U_7 - L_6$	394.29	-----	-38	32	-106	-10	-156	-206	-513	-400	0.709	0.284	1.00	Yes	0.390	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.17**
		$U_8 - L_7$	533.63	-----	-181	141	-70	49	-946	-373	-198	-184	0.650	0.343	1.00	Yes	0.409	0.197	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		$U_9 - L_8$	791.22	-----	-233	127	-80	29	-687	-719	-169	-205	0.783	0.216	1.00	Yes	0.431	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.06**
		$U_{10} - L_9$	948.92	-----	-204	231	-75	68	-627	-541	-89	-140	0.802	0.189	1.00	Yes	0.496	0.107	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.54**
		$U_{11} - L_{10}$	999.14	-----	-283	308	-95	86	-480	-357	54	-20	0.799	0.198	1.00	Yes	0.495	0.112	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		$U_{12} - L_{11}$	975.30	-----	-16	422	-3	129	-230	-136	216	144	0.780	0.217	1.00	Yes	0.483	0.121	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.11**
		$U_{12} - L_{13}$	621.75	-----	-19	365	38	84	258	10	198	-27	0.735	0.255	1.00	Yes	0.404	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.59**
		$U_{13} - L_{14}$	669.33	-----	-274	303	-51	66	171	153	-96	21	0.791	0.204	1.00	Yes	0.435	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.37**
		$U_{14} - L_{15}$	672.81	-----	-134	275	-22	67	109	254	-59	75	0.795	0.203	1.00	Yes	0.437	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.50**
		$U_{15} - L_{16}$	564.84	-----	7	78	-112	9	129	212	45	150	0.828	0.163	1.00	Yes	0.456	0.089	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.89**
		$U_{17} - L_{16}$	-----	-272.47	56	8	-93	-148	521	317	-608	-280	-----	-----	-----	-----	-----	-----	-----	-----	0.623	0.373	1.00	Yes	0.577	0.190	0.77	Yes	1.00	**10.53**
		$U_{18} - L_{17}$	-----	-242.38	3	-11	4	-45	12	17	-1627	-107	-----	-----	-----	-----	-----	-----	-----	-----	0.558	0.441	1.00	Yes	0.513	0.057	0.57	Yes	1.00	**8.20**
		$U_{19} - L_{18}$	380.49	-182.82	-102	21	36	-24	-611	-556	247	193	0.684	0.307	1.00	Yes	0.376	0.169	0.55	Yes	0.419	0.316	0.74	Yes	0.387	0.130	0.52	Yes	1.00	**4.84**
		$U_{20} - L_{19}$	325.10	-403.94	-107	54	-25	-28	-459	-460	552	539	0.426	0.264	0.70	Yes	0.258	0.146	0.41	Yes	0.690	0.301	1.00	Yes	0.623	0.125	0.75	Yes	1.00	**12.16**

Moment (End) AB Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 Vehicle 1.300 Pedestrian
LL Factor: 1.300 1.300

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Upper Chord	Structure 1	$U_0 - U_1$	109.46	-599.42	-251	224	168	-800	-27	-63	358	-458	0.125	0.267	0.40	Yes	0.086	0.183	0.27	Yes	0.816	0.172	0.99	Yes	0.808	0.190	1.00	Yes	1.00	**11.99**
		$U_1 - U_2$	131.30	-576.30	-40	174	-210	-631	-49	42	258	-166	0.150	0.194	0.35	Yes	0.103	0.133	0.24	Yes	0.784	0.208	1	Yes	0.777	0.150	0.93	Yes	1.00	**6.12**
		$U_2 - U_3$	286.00	-652.91	-39	393	-380	-322	-60	-89	385	-138	0.328	0.158	0.49	Yes	0.221	0.104	0.33	Yes	0.888	0.105	1	Yes	0.880	0.093	0.98	Yes	1.00	**6.66**
		$U_3 - U_4$	371.57	-553.71	124	298	-323	-766	-117	-97	20	-171	0.426	0.211	0.64	Yes	0.292	0.145	0.44	Yes	0.753	0.246	1	Yes	0.747	0.182	0.93	Yes	1.00	**5.36**
		$U_4 - U_5$	431.68	-585.61	135	344	-841	-156	-118	48	-101	-194	0.495	0.233	0.73	Yes	0.340	0.160	0.50	Yes	0.797	0.199	1	Yes	0.790	0.200	0.99	Yes	1.00	**6.49**
		$U_5 - U_6$	241.68	-491.88	-171	847	-488	137	-94	-268	48	-852	0.277	0.345	0.63	Yes	0.187	0.228	0.42	Yes	0.669	0.327	1	Yes	0.663	0.201	0.87	Yes	1.00	**9.63**
		$U_6 - U_7$	884.52	-----	348	215	-469	8	-352	145	-100	-104	0.846	0.148	1.00	Yes	0.591	0.102	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.16**
		$U_7 - U_8$	974.62	-----	-463	1884	-62	684	-360	296	-242	173	0.675	0.322	1.00	Yes	0.471	0.219	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.74**
		$U_8 - U_9$	805.54	-----	1032	-61	1705	-874	-104	99	143	429	0.660	0.339	1.00	Yes	0.452	0.230	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.56**
		$U_9 - U_{10}$	720.28	-58.25	256	346	199	-569	69	306	425	536	0.781	0.214	1.00	Yes	0.529	0.143	0.68	Yes	0.075	0.248	0.33	Yes	0.074	0.128	0.21	Yes	1.00	**11.65**
		$U_{10} - U_{11}$	290.66	-613.65	316	-4	281	-966	191	54	530	51	0.315	0.302	0.62	Yes	0.210	0.195	0.41	Yes	0.790	0.209	1	Yes	0.783	0.216	1.00	Yes	1.00	**8.41**
		$U_{11} - U_{12}$	-----	-891.85	202	-95	-48	-729	141	47	407	210	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.149	1	Yes	0.837	0.121	0.96	Yes	1.00	**5.40**
		$U_{12} - U_{13}$	-----	-1301.02	1	-151	-175	-604	219	-25	368	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.880	0.115	1	Yes	0.869	0.083	0.96	Yes	1.00	**5.82**
		$U_{13} - U_{14}$	-----	-1357.64	-112	-356	-433	-1672	151	60	178	-5	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.211	1	Yes	0.778	0.184	0.97	Yes	1.00	**4.27**
		$U_{14} - U_{15}$	-----	-1343.67	-253	-188	-1556	-578	182	-56	264	-47	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.213	1	Yes	0.770	0.172	0.95	Yes	1.00	**4.19**
		$U_{15} - U_{16}$	-----	-1463.23	-60	-413	-450	-989	18	-63	186	-558	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.148	1	Yes	0.839	0.109	0.95	Yes	1.00	**5.03**
		$U_{16} - U_{17}$	-----	-1426.27	-313	-185	-1278	-460	47	-171	178	-237	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.172	1	Yes	0.818	0.141	0.96	Yes	1.00	**5.42**
		$U_{17} - U_{18}$	-----	-1076.05	-619	16	-164	-109	-141	-418	-152	-182	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.139	1	Yes	0.842	0.101	0.95	Yes	1.00	**5.22**
		$U_{18} - U_{19}$	-----	-652.91	-575	27	-417	-37	-227	-294	-1081	-493	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.254	1	Yes	0.735	0.116	0.86	Yes	1.00	**4.31**
		$U_{19} - U_{20}$	-----	-632.87	-1363	929	-119	-172	-788	-367	10	38	-----	-----	-----	-----	-----	-----	-----	-----	0.719	0.279	1	Yes	0.712	0.274	0.99	Yes	1.00	**18.18**
	Structure 2	$U_0 - U_1$	-----	-654.99	161	-49	-22	-1316	105	191	302	-85	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.199	0.98	Yes	0.774	0.223	1.00	Yes	1.00	**9.79**
		$U_1 - U_2$	-----	-811.81	-109	-102	-91	-844	346	685	284	-121	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.205	1	Yes	0.784	0.128	0.92	Yes	1.00	**4.97**
		$U_2 - U_3$	-----	-1177.17	-85	-166	-218	-1112	632	-10	150	20	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.152	1	Yes	0.835	0.113	0.95	Yes	1.00	**5.13**
		$U_3 - U_4$	-----	-1451.07	-341	-233	-914	-1132	96	-347	436	346	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.165	1	Yes	0.826	0.101	0.93	Yes	1.00	**4.88**
		$U_4 - U_5$	-----	-1553.19	-334	-260	-1008	-1465	-111	-391	585	34	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.190	1	Yes	0.797	0.121	0.92	Yes	1.00	**4.66**
		$U_5 - U_6$	-----	-1650.21	-320	132	-1204	-649	-163	-335	167	-283	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.137	1	Yes	0.847	0.100	0.95	Yes	1.00	**5.09**
		$U_6 - U_7$	-----	-1372.42	-215	-31	-856	-1495	-113	-277	-5	-405	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.204	1	Yes	0.781	0.133	0.92	Yes	1.00	**3.95**
		$U_7 - U_8$	-----	-1382.74	-123	-152	-1589	-746	-208	-232	-145	-339	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.204	1	Yes	0.787	0.142	0.93	Yes	1.00	**4.01**
		$U_8 - U_9$	-----	-1267.25	-278	182	-807	-606	-159	-101	113	-483	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.129	1	Yes	0.860	0.086	0.95	Yes	1.00	**4.48**
		$U_9 - U_{10}$	216.99	-960.51	-41	369	-1365	-119	-196	-41	143	-132	0.159	0.187	0.35	Yes	0.108	0.127	0.24	Yes	0.834	0.162	1	Yes	0.829	0.166	1.00	Yes	1.00	**4.52**
		$U_{10} - U_{11}$	731.35	-836.74	247	508	-980	-119	-201	-38	-221	-385	0.618	0.185	0.81	Yes	0.420	0.121	0.55	Yes	0.837	0.159	1	Yes	0.832	0.138	0.97	Yes	1.00	**7.20**
		$U_{11} - U_{12}$	817.52	-----	-1329	1111	-143	222	-975	-832	-293	-261	0.691	0.306	1.00	Yes	0.464	0.204	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.38**
		$U_{12} - U_{13}$	1256.18	-----	422	58	71	-579	-466	8	-799	-520	0.848	0.149	1.00	Yes	0.605	0.103	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.81**
		$U_{13} - U_{14}$	1244.64	-----	-1187	3754	-339	1646	-259	115	-457	-25	0.612	0.379	1.00	Yes	0.433	0.248	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.43**
		$U_{14} - U_{15}$	1236.45	-----	1886	218	3678	-963	-702	-282	102	747	0.608	0.391	1.00	Yes	0.430	0.257	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.08**
		$U_{15} - U_{16}$	1310.37	-----	211	840	-273	-898	-391	104	732	1238	0.792	0.207	1.00	Yes	0.564	0.142	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.14**
		$U_{16} - U_{17}$	1105.75	-----	654	529	676	-886	79	-6	687	498	0.815	0.184	1.00	Yes	0.542	0.121	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.87**
		$U_{17} - U_{18}$	782.09	-----	437	462	633	-1084	-78	-38	203	185	0.785	0.214	1.00	Yes	0.523	0.142	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.46**
		$U_{18} - U_{19}$	807.06	-531.19	600	515	378	-874	-219	-70	269	-184	0.810	0.188	1.00	Yes	0.532	0.120	0.66	Yes	0.631	0.174	0.81	Yes	0.627	0.148	0.78	Yes	1.00	**9.14**
		$U_{19} - U_{20}$	538.14	-754.50	424	323	-272	-709	-158	66	382	244	0.505	0.165	0.67	Yes	0.335	0.108	0.45	Yes	0.838	0.154	1	Yes	0.832	0.114	0.95	Yes	1.00	**6.85**
		$U_{20} - U_{21}$	493.87	-950.57	255	286	-197	-717	6	40	270	-249	0.383	0.133	0.52	Yes	0.268	0.087	0.36	Yes	0.874	0.125	1	Yes	0.868	0.104	0.98	Yes	1.00	**6.92**
		$U_{21} - U_{22}$	272.46	-833.39	99	110	-516	-1356	-34	48	75	-98	0.211	0.207	0.42	Yes	0.150	0.138	0.29	Yes	0.766	0.231	1	Yes	0.761	0.196	0.96	Yes	1.00	**4.61**
		$U_{22} - U_{23}$	252.87	-824.09	112	95	-1348	-518	-129	-34	89	-131	0.196	0.210	0.41	Yes	0.139	0.139	0.28	Yes	0.758	0.235	1	Yes	0.752	0.195	0.95	Yes	1.00	**4.56**
		$U_{23} - U_{24}$	381.81	-908.26	248	167	-471	-600	-212	-2	24	-557	0.296	0.148	0.45	Yes	0.207	0.098	0.31	Yes	0.835	0.162	1	Yes	0.829	0.087	0.92	Yes	1.00	**5.81**
		$U_{24} - U_{25}$	428.86	-755.15	232	318	-877	-210	-207	43	88	-146	0.402	0.168	0.58	Yes	0.267	0.111	0.38	Yes	0.838	0.154	1	Yes	0.833	0.140	0.98	Yes	1.00	**5.85**
		$U_{25} - U_{26}$	853.64	-156.46	526	574	-525	-115	-282	169	-268	-198	0.857	0.139	1.00	Yes	0.562	0.089	0.66	Yes	0.186	0.125	0.32	Yes	0.185	0.098	0.29	Yes	1.00	**10.22**
		$U_{26} - U_{27}$	373.87	-419.62	-2926	1259	-1014	149	-527	-267	-137	-400	0.375	0.574	0.95	Yes	0.250	0.381	0.64	Yes	0.499	0.222	0.73	Yes	0.496	0.497	1.00	Yes	1.00	**18.25**
		$U_{27} - U_{28}$	1026.60	-----	-613	1404	-3	273	-576	-577	-243	-126	0.756	0.237	1.00	Yes	0.503	0.156	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.46**
		$U_{28} - U_{29}$	1381.70	-----	538	36	-714	-331	-159	580	-976	-680	0.835	0.164	1.00	Yes	0.594	0.113	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.75**
		$U_{29} - U_{30}$	1265.19	-----	-606	3649	-159	1503	-492	252	-256	187	0.622	0.371	1.00	Yes	0.440	0.243	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.35**
		$U_{30} - U_{31}$	1217.65	-----	2018	87	3508	-1368	-471	-182	578	1068	0.599	0.398	1.00	Yes	0.424	0.261	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.61**
		$U_{31} - U_{32}$	1186.69	-----	148	575	-416	-689	-118	173	871	1137	0.801	0.195	1.00	Yes	0.571	0.135	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.35**
		$U_{32} - U_{33}$	884.80	-----	573	339	786	-1188	163	46	636	270	0.747	0.245	1.00	Yes	0.502	0.164	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.97**
		$U_{33} - U_{34}$	760.70	-814.31	521	390	-190	-1057	22	42	527	304	0.643	0.213	0.86	Yes	0.437	0.139	0.58	Yes	0.814	0.178	1	Yes	0.809	0.149	0.96	Yes	1.00	**7.60**
		$U_{34} - U_{35}$	380.26	-980.59	465	76	-195	-1175	106	39	384	-12	0.279	0.185	0.47	Yes	0.189	0.125	0.32	Yes	0.851	0.143	1	Yes	0.846	0.143	0.99	Yes	1.00	**5.40**
		$U_{35} - U_{36}$	106.81	-1288.54	247	-162	-358	-881	58	50	310	-47	0.062	0.119	0.19	Yes	0.043	0.079	0.13	Yes	0.880	0.116	1	Yes	0.874	0.094	0.97	Yes	1.00	**5.25**
		$U_{36} - U_{37}$	-----	-1378.19	-72	7	-771	-1627	165	-23	456	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.205	1	Yes	0.785	0.145	0.93	Yes	1.00	**4.44**
		$U_{37} - U_{38}$	-----	-1377.18	120	-174	-1542	-898	21	40	243	62	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.208	1	Yes	0.784	0.137	0.93	Yes	1.00	**4.43**
		$U_{38} - U_{39}$	-----	-1603.91	125	-361	-424	-1698	88	-83	284	-442	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.164	1	Yes	0.823	0.141	0.97	Yes	1.00	**4.75**
		$U_{39} - U_{40}$	-----	-1523.16	-271	-453	-1857	-903	-115	-118	200	-291	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.211	1	Yes	0.782	0.154	0.94	Yes	1.00	**4.47**
		$U_{40} - U_{41}$	-----	-1476.70	-344	-410	-940	-857	-90	-97	-200	-417	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.150	1	Yes	0.841	0.084	0.93	Yes	1.00	**5.12**
		$U_{41} - U_{42}$	-----	-1096.53	-1055	-7	-994	-234	-344	-1227	-93	-217	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.209	1	Yes	0.778	0.107	0.89	Yes	1.00	**6.43**
		$U_{42} - U_{43}$	-----	-857.60	-829	-38	-699	-68	-391	-421	-51	-253	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.166	1	Yes	0.828	0.126	0.96	Yes	1.00	**6.03**
		$U_{43} - U_{44}$	-----	-594.88	-1374	658	58	-289	-727	-332	43	34	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.288	1	Yes	0.703	0.233	0.94	Yes	1.00	**14.05**
	Structure 3	$U_0 - U_1$	-----	-666.00	158	-137	34	-1220	63	122	423	-148	-----	-----	-----	-----	-----	-----	-----	-----	0.756	0.211	0.97	Yes	0.749	0.245	1.00	Yes	1.00	**12.94**
		$U_1 - U_2$	-----	-704.75	-68	-105	-13	-619	249	510	316	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.192	1	Yes	0.793	0.124	0.92	Yes	1.00	**5.22**
		$U_2 - U_3$	-----	-1054.73	-81	-105	22	-668	517	1	790	-28	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.162	1	Yes	0.825	0.109	0.94	Yes	1.00	**6.08**
		$U_3 - U_4$	-----	-1435.97	-141	-193	-502	-1089	125	-246	488	334	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.167	1	Yes	0.823	0.120	0.95	Yes	1.00	**6.19**
		$U_4 - U_5$	-----	-1514.86	-354	-15	-628	-628	32	-233	139	-541	-----	-----	-----	-----	-----	-----	-----	-----	0.878	0.113	1	Yes	0.868	0.069	0.94	Yes	1.00	**6.21**
		$U_5 - U_6$	-----	-1337.12	-156	-234	-562	-1613	-44	-203	-9	-235	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.218	1	Yes	0.767	0.178	0.95	Yes	1.00	**4.33**
		$U_6 - U_7$	-----	-1383.00	-307	-81	-1413	-478	-94	-236	7	-317	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.192	1	Yes	0.793	0.156	0.95	Yes	1.00	**5.01**
		$U_7 - U_8$	-----	-1255.68	-138	-15	-506	-420	-137	-131	-1	-663	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.142	1	Yes	0.839	0.070	0.91	Yes	1.00	**5.29**
		$U_8 - U_9$	-----	-902.96	-464	201	-837	-1	-58	-249	84	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.855	0.145	1	Yes	0.847	0.139	0.99	Yes	1.00	**4.80**
		$U_9 - U_{10}$	-----	-341.51	-2490	1797	-184	74	-423	-1090	-169	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.440	0.501	0.95	Yes	0.436	0.558	1.00	Yes	1.00	**30.12**
		$U_{10} - U_{11}$	716.58	-----	-124	448	4	53	-735	-364	-226	-113	0.777	0.219	1.00	Yes	0.526	0.147	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.04**
		$U_{11} - U_{12}$	831.42	-----	-567	1563	-178	612	-423	-16	-295	9	0.681	0.314	1.00	Yes	0.466	0.214	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.52**
		$U_{12} - U_{13}$	1013.03	-----	1093	86	1650	-655	-444	-56	-73	300	0.702	0.295	1.00	Yes	0.490	0.201	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.38**
		$U_{13} - U_{14}$	877.01	-----	240	398	-28	-308	-174	308	272	496	0.839	0.153	1.00	Yes	0.586	0.105	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.74**
		$U_{14} - U_{15}$	711.95	-263.94	463	292	324	-387	32	185	390	-35	0.816	0.176	1.00	Yes	0.550	0.116	0.67	Yes	0.359	0.175	0.54	Yes	0.356	0.110	0.47	Yes	1.00	**7.49**
		$U_{15} - U_{16}$	382.50	-571.66	308	167	-123	-958	-21	157	108	115	0.438	0.254	0.70	Yes	0.301	0.175	0.48	Yes	0.778	0.213	1	Yes	0.771	0.228	1.00	Yes	1.00	**5.57**
		$U_{16} - U_{17}$	455.37	-624.02	395	136	-569	-420	7	108	175	-102	0.522	0.165	0.69	Yes	0.358	0.113	0.48	Yes	0.849	0.142	1	Yes	0.841	0.135	0.98	Yes	1.00	**6.85**
		$U_{17} - U_{18}$	217.22	-618.44	338	-107	-211	-619	-81	230	95	-350	0.249	0.206	0.46	Yes	0.168	0.135	0.31	Yes	0.842	0.149	1	Yes	0.834	0.147	0.99	Yes	1.00	**5.55**
		$U_{18} - U_{19}$	42.22	-558.78	48	-11	-740	-175	429	75	202	4	0.048	0.248	0.30	Yes	0.033	0.170	0.21	Yes	0.760	0.236	1	Yes	0.754	0.176	0.93	Yes	1.00	**4.99**
		$U_{19} - U_{20}$	128.95	-586.20	-851	456	366	-694	57	-206	53	114	0.148	0.237	0.39	Yes	0.101	0.163	0.27	Yes	0.798	0.168	0.97	Yes	0.790	0.202	1.00	Yes	1.00	**16.75**

Moment (End) AB Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Lower Chord	Structure 1	L_0 - L_1			127.42	-124.23	-375	289	1056	-1456	50	185	-457	-1681	0.195	0.798	1.00	Yes	0.115	0.478	0.60	Yes	0.226	0.560	0.79	Yes	0.224	0.437	0.67	Yes	1.00	**33.70**
		L_1 - L_2			444.66	-92.48	37	88	-38	-685	54	1	-495	227	0.681	0.312	1.00	Yes	0.415	0.205	0.63	Yes	0.168	0.176	0.35	Yes	0.167	0.206	0.38	Yes	1.00	**7.73**
		L_2 - L_3			710.50	-247.79	45	205	-447	-654	-3	-20	122	127	0.817	0.178	1.00	Yes	0.473	0.107	0.58	Yes	0.339	0.220	0.56	Yes	0.335	0.158	0.50	Yes	1.00	**9.28**
		L_3 - L_4			654.42	-293.36	83	327	-309	-936	-18	-2	-121	89	0.753	0.246	1.00	Yes	0.447	0.159	0.61	Yes	0.401	0.223	0.63	Yes	0.397	0.226	0.63	Yes	1.00	**6.68**
		L_4 - L_5			-----	-363.83	-1647	1215	-64	270	76	21	40	-91	-----	-----	-----	-----	-----	-----	-----	-----	0.559	0.188	0.75	Yes	0.554	0.436	1.00	Yes	1.00	**13.08**
		L_5 - L_6			-----	-724.77	-73	706	-290	196	10	88	203	155	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.147	1	Yes	0.836	0.156	1.00	Yes	1.00	**5.49**
		L_6 - L_7			-----	-1119.86	-613	320	148	-94	-109	-46	349	41	-----	-----	-----	-----	-----	-----	-----	-----	0.912	0.055	0.97	Yes	0.901	0.096	1.00	Yes	1.00	**7.88**
		L_7 - L_8			-----	-1247.54	-97	1512	-33	583	81	132	41	72	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.198	1	Yes	0.790	0.200	1.00	Yes	1.00	**4.10**
		L_8 - L_9			-----	-1262.51	949	7	1419	-176	92	48	235	-69	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.182	1	Yes	0.800	0.188	0.99	Yes	1.00	**7.47**
		L_9 - L_{10}			-----	-1069.34	78	213	644	-860	97	70	-97	-181	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.053	0.93	Yes	0.861	0.135	1.00	Yes	1.00	**13.76**
		L_{10} - L_{11}			39.08	-546.37	484	2	257	-614	90	18	10	-183	0.051	0.195	0.25	Yes	0.029	0.117	0.15	Yes	0.840	0.090	0.93	Yes	0.832	0.162	1.00	Yes	1.00	**8.76**
		L_{11} - L_{12}			587.67	-196.19	376	-162	263	-749	-26	9	-185	174	0.761	0.231	1.00	Yes	0.457	0.151	0.61	Yes	0.302	0.100	0.41	Yes	0.299	0.198	0.50	Yes	1.00	**6.99**
		L_{12} - L_{13}			1126.65	-----	109	-78	-296	-467	-15	-35	7	-179	0.889	0.104	1.00	Yes	0.569	0.062	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.30**
		L_{13} - L_{14}			1270.55	-----	231	-391	227	-1612	-105	61	-250	119	0.747	0.243	1.00	Yes	0.484	0.149	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.63**
		L_{14} - L_{15}			1612.91	-----	-344	-81	-1557	-500	-68	-51	-315	113	0.788	0.210	1.00	Yes	0.512	0.127	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.35**
		L_{15} - L_{16}			1701.64	-----	-185	-390	-958	-1166	-79	10	320	227	0.831	0.163	1.00	Yes	0.534	0.096	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.81**
		L_{16} - L_{17}			1254.63	-----	-1222	74	-920	6	-260	-76	-31	-34	0.793	0.203	1.00	Yes	0.515	0.125	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.46**
		L_{17} - L_{18}			942.61	-----	-714	147	-169	-69	-227	-317	-49	2	0.821	0.178	1.00	Yes	0.525	0.108	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.86**
		L_{18} - L_{19}			440.82	-----	-926	446	-228	163	-229	211	-1	-27	0.675	0.325	1.00	Yes	0.456	0.204	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.14**
		L_{19} - L_{20}			84.24	-279.49	-1629	946	-93	18	586	131	-36	-8	0.129	0.610	0.74	Yes	0.079	0.408	0.49	Yes	0.508	0.344	0.86	Yes	0.503	0.489	1.00	Yes	1.00	**21.19**
	Structure 2	L_0 - L_1			75.48	-32.61	-276	323	1229	-3201	11	39	-440	-1528	0.092	0.902	1.00	Yes	0.055	0.572	0.63	Yes	0.047	0.625	0.68	Yes	0.047	0.651	0.70	Yes	1.00	**30.52**
		L_1 - L_2			570.01	-----	125	-128	383	-1158	82	84	-423	226	0.692	0.305	1.00	Yes	0.412	0.194	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.96**
		L_2 - L_3			1067.55	-----	-26	-93	-73	-883	115	173	241	-87	0.841	0.153	1.00	Yes	0.552	0.092	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.34**
		L_3 - L_4			1414.83	-----	43	-256	-56	-1294	50	128	-167	183	0.831	0.166	1.00	Yes	0.560	0.103	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.67**
		L_4 - L_5			1838.57	-----	-206	-160	-1041	-1289	15	-13	238	-81	0.857	0.138	1.00	Yes	0.567	0.082	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.97**
		L_5 - L_6			1934.37	-----	-10	-247	-792	-1602	-92	56	-353	177	0.830	0.164	1.00	Yes	0.557	0.101	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.51**
		L_6 - L_7			1929.76	-----	-271	27	-1491	-1876	56	-39	93	-237	0.817	0.179	1.00	Yes	0.543	0.105	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.92**
		L_7 - L_8			1366.97	-88.92	-143	307	-1443	-455	-60	80	-662	-185	0.784	0.214	1.00	Yes	0.515	0.128	0.65	Yes	0.060	0.190	0.26	Yes	0.060	0.159	0.22	Yes	1.00	**5.31**
		L_8 - L_9			1109.48	-325.77	-100	554	-1023	-45	72	-70	194	818	0.776	0.215	1.00	Yes	0.523	0.137	0.66	Yes	0.270	0.148	0.42	Yes	0.268	0.138	0.41	Yes	1.00	**5.79**
		L_9 - L_{10}			786.20	-741.88	-39	741	-1325	166	29	112	373	-140	0.702	0.257	0.96	Yes	0.409	0.159	0.57	Yes	0.784	0.149	0.94	Yes	0.779	0.212	1.00	Yes	1.00	**7.45**
		L_{10} - L_{11}			-----	-763.35	53	577	-262	384	131	-46	36	-59	-----	-----	-----	-----	-----	-----	-----	-----	0.903	0.064	0.97	Yes	0.897	0.101	1.00	Yes	1.00	**5.41**
		L_{11} - L_{12}			-----	-1004.86	-685	1286	-208	503	-26	19	-14	65	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.102	0.94	Yes	0.824	0.175	1.00	Yes	1.00	**4.89**
		L_{12} - L_{13}			-----	-1424.86	-436	-125	-510	-970	-287	-366	251	328	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.139	1	Yes	0.852	0.096	0.95	Yes	1.00	**5.24**
		L_{13} - L_{14}			-----	-1467.06	-1080	2967	-488	1434	-60	-70	-78	-111	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.176	0.93	Yes	0.738	0.259	1.00	Yes	1.00	**3.52**
		L_{14} - L_{15}			-----	-1466.66	1394	-536	2911	-1144	-127	-109	-120	-77	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.170	0.92	Yes	0.738	0.254	1.00	Yes	1.00	**3.49**
		L_{15} - L_{16}			-----	-1439.91	-1208	762	-902	-1032	-13	410	-344	-356	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.125	1	Yes	0.861	0.120	0.99	Yes	1.00	**15.24**
		L_{16} - L_{17}			-----	-1172.86	1154	258	1155	-697	341	151	-235	-386	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.127	0.99	Yes	0.854	0.143	1.00	Yes	1.00	**9.86**
		L_{17} - L_{18}			-----	-828.80	402	278	791	-517	40	-30	11	0	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.077	0.96	Yes	0.870	0.127	1.00	Yes	1.00	**5.43**
		L_{18} - L_{19}			-----	-657.78	593	154	397	-441	-47	-69	-15	-47	-----	-----	-----	-----	-----	-----	-----	-----	0.882	0.095	0.98	Yes	0.877	0.114	1.00	Yes	1.00	**5.36**
		L_{19} - L_{20}			416.40	-647.29	478	281	201	-668	-70	-21	-170	141	0.472	0.155	0.63	Yes	0.279	0.098	0.38	Yes	0.868	0.110	0.98	Yes	0.863	0.129	1.00	Yes	1.00	**6.59**
		L_{20} - L_{21}			1057.32	-811.69	591	257	-536	-893	15	-64	8	-205	0.843	0.152	1.00	Yes	0.553	0.091	0.65	Yes	0.767	0.126	0.9	Yes	0.762	0.130	0.90	Yes	1.00	**9.49**
		L_{21} - L_{22}			873.74	-472.14	294	113	-251	-1913	-48	-25	-180	141	0.697	0.299	1.00	Yes	0.466	0.187	0.66	Yes	0.446	0.227	0.68	Yes	0.443	0.279	0.73	Yes	1.00	**6.44**
		L_{22} - L_{23}			935.19	-475.66	131	274	-1519	-562	63	-62	-264	115	0.746	0.250	1.00	Yes	0.499	0.157	0.66	Yes	0.449	0.216	0.67	Yes	0.446	0.222	0.67	Yes	1.00	**6.72**
		L_{23} - L_{24}			997.55	-700.84	212	461	-1092	-612	4	48	382	278	0.795	0.200	1.00	Yes	0.522	0.121	0.65	Yes	0.662	0.192	0.86	Yes	0.658	0.159	0.82	Yes	1.00	**8.91**
		L_{24} - L_{25}			261.90	-676.18	238	483	-470	65	141	-141	-14	8	0.297	0.115	0.42	Yes	0.176	0.073	0.25	Yes	0.907	0.071	0.98	Yes	0.901	0.093	1.00	Yes	1.00	**7.54**
		L_{25} - L_{26}			-----	-665.90	157	566	-79	234	11	72	-14	52	-----	-----	-----	-----	-----	-----	-----	-----	0.893	0.087	0.98	Yes	0.887	0.109	1.00	Yes	1.00	**6.34**
		L_{26} - L_{27}			-----	-814.92	-700	852	-106	345	85	-22	62	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.072	0.94	Yes	0.856	0.136	1.00	Yes	1.00	**6.19**
		L_{27} - L_{28}			-----	-1123.08	-349	1401	-98	535	65	145	29	109	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.134	0.96	Yes	0.818	0.173	1.00	Yes	1.00	**4.88**
		L_{28} - L_{29}			-----	-1463.34	-150	-253	-240	-1009	21	-120	169	7	-----	-----	-----	-----	-----	-----	-----	-----	0.883	0.108	1	Yes	0.875	0.100	0.98	Yes	1.00	**4.92**
		L_{29} - L_{30}			-----	-1468.57	-1088	2929	-484	1306	-24	-18	21	13	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.167	0.92	Yes	0.739	0.256	1.00	Yes	1.00	**3.62**
		L_{30} - L_{31}			-----	-1462.00	1334	-471	3023	-1136	-6	-18	20	53	-----	-----	-----	-----	-----	-----	-----	-----	0.742	0.174	0.92	Yes	0.736	0.264	1.00	Yes	1.00	**3.78**
		L_{31} - L_{32}			-----	-1470.59	-572	423	-531	-1123	-158	-68	69	8	-----	-----	-----	-----	-----	-----	-----	-----	0.887	0.111	1	Yes	0.880	0.112	1.00	Yes	1.00	**9.15**
		L_{32} - L_{33}			-----	-1000.95	883	40	1280	-587	21	-28	43	12	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.112	0.94	Yes	0.821	0.174	1.00	Yes	1.00	**4.82**
		L_{33} - L_{34}			110.46	-739.68	517	142	467	-732	-23	1	-22	193	0.110	0.154	0.27	Yes	0.065	0.097	0.17	Yes	0.875	0.105	0.98	Yes	0.869	0.128	1.00	Yes	1.00	**5.15**
		L_{34} - L_{35}			806.34	-786.46	768	31	23	-1079	-14	-77	183	-144	0.720	0.195	0.92	Yes	0.419	0.121	0.55	Yes	0.831	0.106	0.94	Yes	0.826	0.173	1.00	Yes	1.00	**7.55**
		L_{35} - L_{36}			1173.34	-468.06	578	5	94	-997	-78	0	-444	248	0.821	0.176	1.00	Yes	0.553	0.111	0.67	Yes	0.388	0.089	0.48	Yes	0.385	0.135	0.52	Yes	1.00	**6.65**
		L_{36} - L_{37}			1408.40	-157.38	410	-6	-436	-1501	13	-18	306	34	0.808	0.191	1.00	Yes	0.530	0.113	0.65	Yes	0.107	0.172	0.28	Yes	0.106	0.166	0.28	Yes	1.00	**5.76**
		L_{37} - L_{38}			1881.02	-----	130	-362	-1457	-1661	-62	38	-802	-120	0.796	0.196	1.00	Yes	0.529	0.117	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.38**
		L_{38} - L_{39}			1847.16	-----	-290	-53	-1689	-1235	-5	-67	336	841	0.793	0.202	1.00	Yes	0.532	0.126	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.37**
		L_{39} - L_{40}			1792.78	-129.76	58	-305	-1644	-1214	-96	-47	103	-12	0.836	0.162	1.00	Yes	0.553	0.096	0.65	Yes	0.072	0.288	0.36	Yes	0.071	0.155	0.23	Yes	1.00	**15.88**
		L_{40} - L_{41}			1391.53	-----	-510	50	-1399	-379	-16	-39	-117	-14	0.818	0.173	1.00	Yes	0.551	0.107	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**14.19**
		L_{41} - L_{42}			977.11	-----	-930	253	-110	-145	-848	-573	109	235	0.770	0.225	1.00	Yes	0.505	0.138	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.03**
		L_{42} - L_{43}			585.43	-----	-1211	406	-201	130	-207	192	79	27	0.711	0.280	1.00	Yes	0.423	0.180	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.78**
		L_{43} - L_{44}			-----	-168.07	-3701	1331	242	-185	1344	392	-89	-26	-----	-----	-----	-----	-----	-----	-----	-----	0.242	0.652	0.9	Yes	0.240	0.753	1.00	Yes	1.00	**37.06**
	Structure 3	L_0 - L_1			22.60	-152.00	-93	55	1423	-2365	3	13	-267	-1211	0.035	0.961	1.00	Yes	0.021	0.638	0.66	Yes	0.276	0.573	0.85	Yes	0.274	0.710	0.99	Yes	1.00	**33.72**
		L_1 - L_2			451.86	-----	146	-165	386	-805	36	59	-291	298	0.692	0.303	1.00	Yes	0.468	0.191	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.04**
		L_2 - L_3			958.68	-----	-25	-135	-12	-627	86	127	304	-45	0.835	0.160	1.00	Yes	0.534	0.097	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.51**
		L_3 - L_4			1284.95	-----	41	-295	18	-1103	30	120	-174	196	0.812	0.179	1.00	Yes	0.527	0.110	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.57**
		L_4 - L_5			1753.94	-----	-269	-126	-1064	-788	28	14	88	-135	0.857	0.138	1.00	Yes	0.550	0.080	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.41**
		L_5 - L_6			1525.99	-----	-35	-314	-267	-1900	-62	137	-199	230	0.746	0.245	1.00	Yes	0.484	0.148	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.30**
		L_6 - L_7			1333.42	-----	-1410	366	-1425	-6	-8	-2	-223	177	0.784	0.215	1.00	Yes	0.508	0.131	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.24**
		L_7 - L_8			1088.62	-----	-79	92	-549	-342	-1	97	337	329	0.859	0.137	1.00	Yes	0.549	0.083	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.88**
		L_8 - L_9			389.63	-----	-1671	1102	-261	198	-282	15	17	-68	0.505	0.492	1.00	Yes	0.303	0.323	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**19.54**
		L_9 - L_{10}			-----	-536.04	-444	674	-164	134	-52	-13	-27	50	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.060	0.89	Yes	0.817	0.178	1.00	Yes	1.00	**7.44**
		L_{10} - L_{11}			-----	-1066.50	-841	690	65	-132	71	-145	336	-163	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.052	0.92	Yes	0.858	0.132	1.00	Yes	1.00	**14.02**
		L_{11} - L_{12}			-----	-1265.35	-122	1403	-55	534	-133	-198	-84	-98	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.187	1	Yes	0.801	0.186	0.99	Yes	1.00	**4.39**
		L_{12} - L_{13}			-----	-1248.22	848	-12	1437	-102	-173	-156	-233	-191	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.199	1	Yes	0.791	0.190	0.99	Yes	1.00	**4.09**
		L_{13} - L_{14}			-----	-1132.58	24	282	259	-533	-89	-45	-159	-82	-----	-----	-----	-----	-----	-----	-----	-----	0.922	0.041	0.97	Yes	0.912	0.084	1.00	Yes	1.00	**8.81**
		L_{14} - L_{15}			-----	-742.75	569	146	210	-216	-31	-87	-32	-142	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.126	1	Yes	0.857	0.126	0.99	Yes	1.00	**5.44**
		L_{15} - L_{16}			126.65	-519.34	456	143	395	-764	-4	-72	-91	150	0.164	0.229	0.40	Yes	0.098	0.150	0.25	Yes	0.798	0.174	0.98	Yes	0.791	0.202	1.00	Yes	1.00	**5.00**
		L_{16} - L_{17}			702.90	-275.78	383	40	-636	-497	57	-81	-223	43	0.809	0.189	1.00	Yes	0.480	0.122	0.61	Yes	0.377	0.205	0.59	Yes	0.373	0.153	0.53	Yes	1.00	**7.03**
		L_{17} - L_{18}			689.32	-125.42	117	-45	-614	-705	41	102	176	113	0.793	0.198	1.00	Yes	0.459	0.119	0.58	Yes	0.171	0.217	0.39	Yes	0.170	0.170	0.34	Yes	1.00	**7.01**
		L_{18} - L_{19}			452.94	-----	-845	65	-439	-25	-120	239	22	179	0.693	0.305	1.00	Yes	0.423	0.204	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.42**
		L_{19} - L_{20}			-----	-223.20	-1975	1679	307	-356	1340	364	-236	-64	-----	-----	-----	-----	-----	-----	-----	-----	0.405	0.566	0.98	Yes	0.402	0.593	1.00	Yes	1.00	**44.13**

Moment (End) AB Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 Vehicle 1.300 Pedestrian
LL Factor: 1.300 1.300

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-312.30	-151	201	-1	20	-725	-232	-72	-23	-----	-----	-----	-----	-----	-----	-----	-----	0.698	0.302	1	Yes	0.661	0.257	0.92	Yes	1.00	**3.92**
		$U_1 - L_1$	73.69	-332.90	-216	224	56	-52	-117	-49	106	41	0.133	0.320	0.46	Yes	0.073	0.176	0.25	Yes	0.727	0.113	0.85	Yes	0.704	0.286	1.00	Yes	1.00	**7.23**
		$U_2 - L_2$	137.99	-311.70	-215	266	122	-137	63	102	98	9	0.248	0.370	0.62	Yes	0.137	0.203	0.34	Yes	0.681	0.136	0.82	Yes	0.660	0.340	1.00	Yes	1.00	**9.76**
		$U_3 - L_3$	218.76	-268.11	-309	331	184	-215	11	255	-236	-221	0.393	0.497	0.90	Yes	0.216	0.274	0.49	Yes	0.588	0.172	0.76	Yes	0.567	0.424	1.00	Yes	1.00	**13.21**
		$U_4 - L_4$	-----	-372.72	54	-55	158	-162	-160	-74	-94	-42	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.097	0.92	Yes	0.789	0.206	1.00	Yes	1.00	**4.85**
		$U_5 - L_5$	-----	-423.03	59	-66	247	-260	-150	-46	-95	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.106	0.88	Yes	0.730	0.264	1.00	Yes	1.00	**3.88**
		$U_6 - L_6$	-----	-464.86	72	-72	194	-210	-135	0	1128	417	-----	-----	-----	-----	-----	-----	-----	-----	0.704	0.289	1	Yes	0.667	0.183	0.86	Yes	1.00	**3.30**
		$U_7 - L_7$	-----	-434.92	119	-132	302	-327	-130	46	-1	99	-----	-----	-----	-----	-----	-----	-----	-----	0.727	0.125	0.86	Yes	0.671	0.322	1.00	Yes	1.00	**3.06**
		$U_8 - L_8$	-----	-1196.66	-289	342	352	-432	-1101	-381	628	148	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.129	1	Yes	0.830	0.080	0.92	Yes	1.00	**7.26**
		$U_9 - L_9$	-----	-645.88	-405	478	-176	203	-108	-348	-245	-171	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.155	0.93	Yes	0.730	0.266	1.00	Yes	1.00	**4.28**
		$U_{10} - L_{10}$	-----	-803.29	-359	383	-137	102	-296	-221	-214	-167	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.113	0.95	Yes	0.793	0.198	1.00	Yes	1.00	**7.08**
		$U_{11} - L_{11}$	-----	-667.17	-371	462	-118	161	-157	-34	-140	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.091	0.9	Yes	0.777	0.214	1.00	Yes	1.00	**5.45**
		$U_{12} - L_{12}$	-----	-533.21	-297	306	-103	102	-100	62	-125	5	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.089	0.86	Yes	0.732	0.261	1.00	Yes	1.00	**4.97**
		$U_{13} - L_{13}$	-----	-367.50	-237	255	-64	78	-81	107	-106	45	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.101	0.85	Yes	0.704	0.292	1.00	Yes	1.00	**3.81**
		$U_{14} - L_{14}$	-----	-248.67	-124	144	-34	40	-1602	-122	-1342	-225	-----	-----	-----	-----	-----	-----	-----	-----	0.555	0.443	1	Yes	0.526	0.184	0.72	Yes	1.00	**5.49**
		$U_{15} - L_{15}$	54.56	-297.68	-45	44	278	-286	-156	-89	-94	-227	0.098	0.431	0.53	Yes	0.054	0.237	0.30	Yes	0.667	0.181	0.85	Yes	0.630	0.365	1.00	Yes	1.00	**7.79**
		$U_{16} - L_{16}$	1.33	-323.75	10	-14	234	-246	-165	-111	-94	-218	0.002	0.377	0.38	Yes	0.001	0.208	0.21	Yes	0.730	0.165	0.9	Yes	0.685	0.314	1.00	Yes	1.00	**6.45**
		$U_{17} - L_{17}$	-----	-439.38	43	-55	219	-237	-170	-99	43	-85	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.132	0.96	Yes	0.758	0.241	1.00	Yes	1.00	**4.56**
		$U_{18} - L_{18}$	-----	-536.75	116	-121	425	-443	-157	-63	65	-9	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.094	0.88	Yes	0.747	0.251	1.00	Yes	1.00	**5.36**
		$U_{19} - L_{19}$	-----	-649.33	130	-143	482	-508	-69	3	361	147	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.148	0.96	Yes	0.756	0.236	1.00	Yes	1.00	**6.03**
		$U_{20} - L_{20}$	-----	-599.31	163	-209	405	-504	17	2	545	72	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.201	1	Yes	0.698	0.234	0.94	Yes	1.00	**4.51**
	Structure 2	$U_0 - L_0$	-----	-648.53	-403	522	-94	155	-787	-134	-274	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.216	1	Yes	0.695	0.221	0.92	Yes	1.00	**4.07**
		$U_1 - L_1$	-----	-700.26	-469	510	-87	94	-864	-285	58	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.196	1	Yes	0.750	0.216	0.97	Yes	1.00	**5.48**
		$U_2 - L_2$	-----	-590.52	-444	470	-49	57	-697	-195	132	52	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.175	0.97	Yes	0.752	0.241	1.00	Yes	1.00	**5.67**
		$U_3 - L_3$	-----	-487.22	-215	237	-24	29	-508	-166	41	146	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.167	1	Yes	0.764	0.216	0.98	Yes	1.00	**5.26**
		$U_4 - L_4$	29.54	-340.91	-204	212	17	-9	40	238	-42	101	0.053	0.340	0.40	Yes	0.029	0.187	0.22	Yes	0.773	0.126	0.9	Yes	0.721	0.271	1.00	Yes	1.00	**6.01**
		$U_5 - L_5$	111.80	-337.72	-191	219	80	-77	5	245	-97	0	0.201	0.351	0.56	Yes	0.111	0.193	0.31	Yes	0.763	0.128	0.9	Yes	0.715	0.280	1.00	Yes	1.00	**8.26**
		$U_6 - L_6$	245.00	-290.28	-289	299	154	-172	56	340	-129	-78	0.441	0.480	0.93	Yes	0.242	0.264	0.51	Yes	0.653	0.169	0.83	Yes	0.614	0.382	1.00	Yes	1.00	**14.92**
		$U_7 - L_7$	-----	-229.89	50	-58	318	-371	-128	-34	-1243	-339	-----	-----	-----	-----	-----	-----	-----	-----	0.519	0.479	1	Yes	0.486	0.474	0.97	Yes	1.00	**21.22**
		$U_8 - L_8$	-----	-458.78	113	-125	371	-383	-166	-113	-642	-477	-----	-----	-----	-----	-----	-----	-----	-----	0.665	0.224	0.89	Yes	0.661	0.335	1.00	Yes	1.00	**5.63**
		$U_9 - L_9$	-----	-666.21	202	-207	456	-510	-220	-118	1855	312	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.252	1	Yes	0.714	0.217	0.94	Yes	1.00	**5.45**
		$U_{10} - L_{10}$	-----	-785.22	184	-194	564	-588	-162	-77	-44	-97	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.097	0.88	Yes	0.734	0.260	1.00	Yes	1.00	**6.30**
		$U_{11} - L_{11}$	-----	-845.71	196	-196	435	-467	-122	-13	-81	34	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.078	0.93	Yes	0.791	0.206	1.00	Yes	1.00	**4.46**
		$U_{12} - L_{12}$	-----	-893.83	176	-153	517	-494	-58	59	49	120	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.087	0.95	Yes	0.775	0.222	1.00	Yes	1.00	**4.68**
		$U_{13} - L_{13}$	-----	-733.08	265	-264	597	-598	-55	58	-22	99	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.111	0.93	Yes	0.707	0.286	1.00	Yes	1.00	**4.21**
		$U_{14} - L_{14}$	-----	-1196.53	-391	359	621	-595	-827	-289	696	390	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.115	1	Yes	0.793	0.110	0.91	Yes	1.00	**7.87**
		$U_{15} - L_{15}$	-----	-704.05	-656	658	-136	151	-183	-151	-33	15	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.156	0.95	Yes	0.679	0.315	1.00	Yes	1.00	**5.67**
		$U_{16} - L_{16}$	-----	-735.52	-490	450	-83	49	-292	-207	-134	-53	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.116	0.97	Yes	0.788	0.208	1.00	Yes	1.00	**4.82**
		$U_{17} - L_{17}$	-----	-642.69	-541	533	-137	125	-160	-94	-85	-42	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.092	0.89	Yes	0.748	0.251	1.00	Yes	1.00	**4.17**
		$U_{18} - L_{18}$	-----	-612.73	-379	420	-130	116	-188	-60	-77	-39	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.088	0.91	Yes	0.781	0.215	1.00	Yes	1.00	**3.92**
		$U_{19} - L_{19}$	-----	-482.29	-284	288	-86	77	106	-162	-90	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.726	0.093	0.82	Yes	0.720	0.277	1.00	Yes	1.00	**5.78**
		$U_{20} - L_{20}$	-----	-384.84	-208	222	-55	54	-149	76	-124	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.103	0.9	Yes	0.737	0.253	1.00	Yes	1.00	**5.58**
		$U_{21} - L_{21}$	-----	-316.99	-246	257	-27	37	-132	97	-441	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.716	0.202	0.92	Yes	0.671	0.328	1.00	Yes	1.00	**5.88**
		$U_{22} - L_{22}$	-----	-225.27	-124	146	173	-197	243	97	-1471	-475	-----	-----	-----	-----	-----	-----	-----	-----	0.507	0.485	1	Yes	0.477	0.252	0.73	Yes	1.00	**21.62**
		$U_{23} - L_{23}$	-----	-306.65	24	-25	262	-268	-91	33	-97	-149	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.145	0.84	Yes	0.649	0.343	1.00	Yes	1.00	**6.23**
		$U_{24} - L_{24}$	-----	-379.28	44	-46	225	-238	-131	24	-84	-133	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.111	0.89	Yes	0.727	0.271	1.00	Yes	1.00	**5.95**
		$U_{25} - L_{25}$	-----	-471.74	81	-78	307	-304	-121	33	80	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.710	0.088	0.8	Yes	0.704	0.295	1.00	Yes	1.00	**5.13**
		$U_{26} - L_{26}$	-----	-600.92	135	-134	403	-453	-153	22	-64	12	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.085	0.89	Yes	0.766	0.232	1.00	Yes	1.00	**3.93**
		$U_{27} - L_{27}$	-----	-628.76	157	-155	567	-567	-148	42	-98	55	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.082	0.86	Yes	0.732	0.263	1.00	Yes	1.00	**4.06**
		$U_{28} - L_{28}$	-----	-656.83	136	-118	441	-434	-117	38	1361	262	-----	-----	-----	-----	-----	-----	-----	-----	0.759	0.238	1	Yes	0.704	0.187	0.90	Yes	1.00	**3.67**
		$U_{29} - L_{29}$	-----	-696.85	226	-229	675	-673	-99	39	111	117	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.125	0.91	Yes	0.672	0.323	1.00	Yes	1.00	**4.85**
		$U_{30} - L_{30}$	-----	-1185.88	-456	402	424	-429	-805	-374	556	202	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.127	1	Yes	0.786	0.081	0.87	Yes	1.00	**6.96**
		$U_{31} - L_{31}$	-----	-744.71	-586	587	-187	189	-195	-141	-113	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.149	0.98	Yes	0.718	0.281	1.00	Yes	1.00	**4.76**
		$U_{32} - L_{32}$	-----	-903.23	-483	446	-123	88	-294	-195	-183	-107	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.133	1	Yes	0.783	0.207	1.00	Yes	1.00	**5.09**
		$U_{33} - L_{33}$	-----	-858.26	-404	430	-169	146	-156	-82	-139	-78	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.080	0.95	Yes	0.802	0.190	1.00	Yes	1.00	**4.84**
		$U_{34} - L_{34}$	-----	-806.21	-502	552	-156	162	-732	-252	-102	19	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.167	0.97	Yes	0.754	0.244	1.00	Yes	1.00	**8.06**
		$U_{35} - L_{35}$	-----	-710.57	-514	557	-180	186	48	293	-105	35	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.084	0.88	Yes	0.762	0.236	1.00	Yes	1.00	**7.42**
		$U_{36} - L_{36}$	-----	-473.20	-343	360	-103	116	-52	193	-103	47	-----	-----	-----	-----	-----	-----	-----	-----	0.686	0.101	0.79	Yes	0.682	0.314	1.00	Yes	1.00	**5.78**
		$U_{37} - L_{37}$	-----	-237.95	-109	133	-57	68	-1764	73	-121	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.538	0.453	1	Yes	0.503	0.169	0.68	Yes	1.00	**5.23**
		$U_{38} - L_{38}$	219.55	-225.47	-153	168	256	-256	-117	-29	-934	-607	0.395	0.598	1.00	Yes	0.217	0.329	0.55	Yes	0.507	0.400	0.91	Yes	0.477	0.327	0.81	Yes	1.00	**11.69**
		$U_{39} - L_{39}$	127.20	-302.51	-97	96	197	-219	-150	-48	-642	-421	0.229	0.465	0.70	Yes	0.126	0.256	0.39	Yes	0.683	0.311	1	Yes	0.640	0.279	0.92	Yes	1.00	**7.68**
		$U_{40} - L_{40}$	34.15	-331.01	-21	12	233	-233	-129	-59	-57	-129	0.061	0.335	0.40	Yes	0.034	0.184	0.22	Yes	0.751	0.127	0.88	Yes	0.700	0.298	1.00	Yes	1.00	**5.17**
		$U_{41} - L_{41}$	-----	-487.78	27	-34	236	-252	-102	-38	-91	-112	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.101	0.94	Yes	0.765	0.230	1.00	Yes	1.00	**4.90**
		$U_{42} - L_{42}$	-----	-581.23	71	-81	490	-500	-83	-55	58	26	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.080	0.86	Yes	0.741	0.256	1.00	Yes	1.00	**5.51**
		$U_{43} - L_{43}$	-----	-710.68	106	-123	524	-557	-59	-39	464	244	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.147	0.96	Yes	0.762	0.236	1.00	Yes	1.00	**5.96**
		$U_{44} - L_{44}$	-----	-665.39	178	-218	444	-569	-61	-10	668	113	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.202	1	Yes	0.713	0.241	0.96	Yes	1.00	**4.41**
	Structure 3	$U_0 - L_0$	-----	-581.28	-368	461	-98	161	-735	-96	-244	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.231	1	Yes	0.677	0.214	0.90	Yes	1.00	**4.57**
		$U_1 - L_1$	-----	-633.67	-419	454	-104	111	-785	-209	8	-74	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.204	1	Yes	0.738	0.211	0.95	Yes	1.00	**6.10**
		$U_2 - L_2$	-----	-543.96	-389	418	-81	86	-721	-182	92	37	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.189	0.99	Yes	0.757	0.237	1.00	Yes	1.00	**6.31**
		$U_3 - L_3$	-----	-449.08	-192	215	-28	39	-45	172	5	124	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.109	0.95	Yes	0.775	0.218	1.00	Yes	1.00	**5.54**
		$U_4 - L_4$	0.65	-331.72	-216	230	-9	12	-155	189	-74	99	0.001	0.348	0.35	Yes	0.001	0.191	0.20	Yes	0.748	0.102	0.85	Yes	0.702	0.293	1.00	Yes	1.00	**6.53**
		$U_5 - L_5$	49.04	-301.98	-262	276	35	-32	-162	171	-115	23	0.088	0.402	0.49	Yes	0.049	0.221	0.27	Yes	0.677	0.128	0.81	Yes	0.639	0.352	1.00	Yes	1.00	**7.68**
		$U_6 - L_6$	-----	-264.38	34	-37	130	-143	-149	-43	-1385	-231	-----	-----	-----	-----	-----	-----	-----	-----	0.590	0.404	1	Yes	0.559	0.182	0.75	Yes	1.00	**5.86**
		$U_7 - L_7$	-----	-358.96	61	-73	256	-271	-163	-111	-187	-173	-----	-----	-----	-----	-----	-----	-----	-----	0.726	0.148	0.88	Yes	0.688	0.310	1.00	Yes	1.00	**3.98**
		$U_8 - L_8$	-----	-521.14	103	-100	321	-327	-196	-126	-218	-182	-----	-----	-----	-----	-----	-----	-----	-----	0.753	0.124	0.88	Yes	0.715	0.279	1.00	Yes	1.00	**5.08**
		$U_9 - L_9$	-----	-652.75	122	-164	412	-503	-154	-71	57	17	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.098	0.89	Yes	0.760	0.234	1.00	Yes	1.00	**5.11**
		$U_{10} - L_{10}$	-----	-805.82	136	-120	384	-395	47	162	136	179	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.074	0.91	Yes	0.795	0.205	1.00	Yes	1.00	**5.82**
		$U_{11} - L_{11}$	-----	-633.74	185	-216	426	-503	-39	68	-73	295	-----	-----	-----	-----	-----	-----	-----	-----	0.756	0.123	0.88	Yes	0.716	0.279	1.00	Yes	1.00	**3.91**
		$U_{12} - L_{12}$	-----	-1225.22	-264	272	363	-490	-905	-208	841	322	-----	-----	-----	-----	-----	-----	-----	-----	0.885	0.111	1	Yes	0.849	0.091	0.95	Yes	1.00	**7.59**
		$U_{13} - L_{13}$	-----	-447.30	-286	309	-106	117	-162	-137	-140	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.748	0.147	0.9	Yes	0.690	0.304	1.00	Yes	1.00	**3.75**
		$U_{14} - L_{14}$	-----	-552.61	-235	234	-63	59	-275	-211	-163	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.128	0.97	Yes	0.792	0.206	1.00	Yes	1.00	**4.84**
		$U_{15} - L_{15}$	-----	-435.28	-233	243	-51	56	-199	-83	-141	-63	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.115	0.91	Yes	0.751	0.247	1.00	Yes	1.00	**4.08**
		$U_{16} - L_{16}$	-----	-246.19	-168	175	-52	52	-1529	-443	-162	-84	-----	-----	-----	-----	-----	-----	-----	-----	0.541	0.454	1	Yes	0.521	0.224	0.75	Yes	1.00	**4.88**
		$U_{17} - L_{17}$	214.83	-265.83	-205	234	323	-336	-117	87	-283	-319	0.386	0.522	0.91	Yes	0.213	0.287	0.50	Yes	0.583	0.203	0.79	Yes	0.562	0.430	1.00	Yes	1.00	**13.14**
		$U_{18} - L_{18}$	136.97	-301.19	-134	147	239	-283	-108	-40	-282	-182	0.246	0.443	0.69	Yes	0.135	0.244	0.38	Yes	0.658	0.176	0.84	Yes	0.637	0.362	1.00	Yes	1.00	**9.62**
		$U_{19} - L_{19}$	44.47	-320.83	-55	41	243	-246	-169	-94	147	52	0.080	0.363	0.45	Yes	0.044	0.200	0.25	Yes	0.701	0.133	0.84	Yes	0.679	0.314	1.00	Yes	1.00	**5.72**
		$U_{20} - L_{20}$	-----	-333.54	37	-37	162	-229	-224	-72	344	110	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.206	0.96	Yes	0.706	0.293	1.00	Yes	1.00	**3.74**

Moment (End) AB Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Diagonals	Structure 1	$U_0 - L_1$			574.51	-111.84	-116	66	20	-18	-416	-198	-40	-2	0.754	0.240	1.00	Yes	0.455	0.132	0.59	Yes	0.191	0.177	0.37	Yes	0.173	0.135	0.31	Yes	1.00	**8.00**
		$U_1 - L_2$			432.37	-142.59	-101	26	30	-24	-322	-224	-117	-54	0.778	0.222	1.00	Yes	0.428	0.122	0.55	Yes	0.327	0.204	0.54	Yes	0.302	0.129	0.44	Yes	1.00	**8.56**
		$U_2 - L_3$			391.47	-142.25	-113	17	-13	-42	-383	-492	-459	-213	0.704	0.286	1.00	Yes	0.387	0.158	0.55	Yes	0.327	0.292	0.62	Yes	0.301	0.144	0.45	Yes	1.00	**11.23**
		$U_3 - L_4$			75.64	-297.66	58	-3	-97	-131	116	241	-500	-423	0.136	0.312	0.45	Yes	0.075	0.172	0.25	Yes	0.681	0.314	1	Yes	0.630	0.167	0.80	Yes	1.00	**10.64**
		$U_4 - L_4$			541.65	-----	-6	88	-118	-18	360	294	-363	22	0.794	0.205	1.00	Yes	0.437	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.43**
		$U_4 - L_5$			677.74	-----	-149	271	-35	76	190	81	189	96	0.801	0.189	1.00	Yes	0.441	0.104	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.75**
		$U_5 - L_6$			648.65	-----	-281	261	-78	85	371	-25	296	170	0.767	0.227	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.29**
		$U_6 - L_7$			628.86	-----	-62	346	-8	115	310	215	243	175	0.743	0.253	1.00	Yes	0.409	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.60**
		$U_8 - L_9$			906.14	-----	-39	425	-12	142	-669	259	143	135	0.724	0.275	1.00	Yes	0.449	0.155	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.44**
		$U_9 - L_{10}$			1012.95	-----	-289	318	-97	85	329	291	89	104	0.810	0.184	1.00	Yes	0.502	0.103	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.91**
		$U_{10} - L_{11}$			1027.60	-----	-202	259	-74	71	0	-57	-53	-69	0.868	0.129	1.00	Yes	0.537	0.072	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.02**
		$U_{11} - L_{12}$			846.96	-----	-243	160	-79	29	-263	-280	-192	-163	0.838	0.154	1.00	Yes	0.461	0.085	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.22**
		$U_{12} - L_{13}$			621.35	-----	-192	167	-72	51	-357	-330	-229	-195	0.757	0.237	1.00	Yes	0.477	0.134	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.73**
		$U_{13} - L_{14}$			398.01	-----	-92	34	-69	0	-240	-545	-434	-535	0.716	0.276	1.00	Yes	0.394	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.08**
		$U_{15} - L_{14}$			-----	-186.18	2	-26	-59	-194	-75	-176	-1172	4	-----	-----	-----	-----	-----	-----	-----	-----	0.436	0.557	1	Yes	0.394	0.248	0.65	Yes	1.00	**18.60**
		$U_{16} - L_{15}$			400.95	-38.28	-134	92	-5	-11	-352	-351	-33	-75	0.721	0.273	1.00	Yes	0.397	0.150	0.55	Yes	0.091	0.188	0.28	Yes	0.081	0.171	0.26	Yes	1.00	**6.95**
		$U_{17} - L_{16}$			523.60	-----	-154	105	-21	3	-223	-304	-21	-88	0.768	0.227	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.93**
		$U_{18} - L_{17}$			641.21	-----	-342	263	-93	56	-259	-226	4	-43	0.758	0.240	1.00	Yes	0.417	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.73**
		$U_{19} - L_{18}$			694.08	-----	-350	257	-100	64	-365	-140	39	0	0.752	0.239	1.00	Yes	0.413	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.90**
		$U_{20} - L_{19}$			681.12	-----	-363	312	-125	103	-457	-80	0	28	0.738	0.261	1.00	Yes	0.406	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.70**
	Structure 2	$U_0 - L_1$			751.56	-----	-380	367	-47	57	-495	-156	-126	61	0.744	0.250	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.47**
		$U_1 - L_2$			738.65	-----	-370	285	-66	41	-628	-254	60	20	0.731	0.266	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.56**
		$U_2 - L_3$			610.59	-----	-338	256	-38	26	-470	-182	-62	-186	0.722	0.276	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.57**
		$U_3 - L_4$			554.51	-----	-184	133	-9	-3	-394	-426	-237	-223	0.739	0.258	1.00	Yes	0.407	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.10**
		$U_4 - L_5$			389.46	-76.99	-131	87	18	-24	-427	-396	-142	-88	0.700	0.292	1.00	Yes	0.385	0.160	0.55	Yes	0.190	0.224	0.42	Yes	0.163	0.168	0.34	Yes	1.00	**6.75**
		$U_5 - L_6$			360.80	-145.11	-128	62	24	-66	-605	-458	-647	-319	0.649	0.351	1.00	Yes	0.357	0.193	0.55	Yes	0.343	0.318	0.67	Yes	0.307	0.163	0.48	Yes	1.00	**9.56**
		$U_6 - L_7$			-----	-335.53	10	-31	41	-91	-214	-171	-539	-362	-----	-----	-----	-----	-----	-----	-----	-----	0.718	0.274	1	Yes	0.643	0.104	0.75	Yes	1.00	**7.40**
		$U_8 - L_7$			537.36	-----	-167	143	-191	44	73	-193	-659	45	0.685	0.306	1.00	Yes	0.431	0.175	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.59**
		$U_8 - L_9$			693.75	-----	-335	236	-125	89	-283	-432	17	-69	0.751	0.243	1.00	Yes	0.413	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.52**
		$U_{10} - L_9$			770.34	-----	-321	197	-115	96	-34	-557	46	-19	0.762	0.232	1.00	Yes	0.419	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.86**
		$U_{11} - L_{10}$			893.22	-----	-373	303	-132	123	-42	-84	145	35	0.814	0.178	1.00	Yes	0.448	0.098	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.59**
		$U_{12} - L_{11}$			887.75	-----	-351	354	-141	150	257	163	215	115	0.809	0.185	1.00	Yes	0.445	0.102	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.10**
		$U_{13} - L_{12}$			755.05	-----	-429	391	-180	173	348	203	352	183	0.747	0.252	1.00	Yes	0.411	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.71**
		$U_{14} - L_{13}$			726.31	-----	-216	451	-29	193	383	-187	470	163	0.719	0.280	1.00	Yes	0.395	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.55**
		$U_{14} - L_{15}$			610.03	-----	-144	408	55	76	249	165	30	-20	0.721	0.276	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.95**
		$U_{15} - L_{16}$			632.38	-----	-379	353	-67	72	195	173	8	34	0.748	0.250	1.00	Yes	0.411	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.60**
		$U_{16} - L_{17}$			723.37	-----	-323	381	-53	105	98	77	-6	14	0.783	0.211	1.00	Yes	0.431	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.39**
		$U_{17} - L_{18}$			690.21	-----	-309	305	-53	104	-1	-5	-27	6	0.816	0.180	1.00	Yes	0.449	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.28**
		$U_{18} - L_{19}$			566.25	-----	-268	270	-72	90	-968	-67	-74	-59	0.669	0.328	1.00	Yes	0.368	0.181	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.47**
		$U_{19} - L_{20}$			579.37	-----	-212	183	-43	52	-344	-307	-116	-68	0.739	0.260	1.00	Yes	0.406	0.147	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.85**
		$U_{20} - L_{21}$			412.43	-----	-118	104	-39	22	-315	-258	-342	-212	0.742	0.249	1.00	Yes	0.408	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.33**
		$U_{21} - L_{22}$			319.08	-179.59	-121	53	-6	-68	-378	-390	-914	-620	0.574	0.419	1.00	Yes	0.316	0.230	0.55	Yes	0.424	0.408	0.84	Yes	0.380	0.154	0.54	Yes	1.00	**14.94**
		$U_{22} - L_{22}$			347.26	-----	-112	60	-113	-55	136	-298	-769	-51	0.625	0.367	1.00	Yes	0.344	0.202	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.15**
		$U_{24} - L_{23}$			431.82	-----	-124	105	-22	21	-170	-205	46	-16	0.777	0.218	1.00	Yes	0.427	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.01**
		$U_{25} - L_{24}$			595.10	-----	-218	183	-38	45	-113	-214	103	21	0.759	0.239	1.00	Yes	0.417	0.134	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.22**
		$U_{26} - L_{25}$			679.04	-----	-298	270	-72	85	-19	-97	138	63	0.803	0.194	1.00	Yes	0.442	0.107	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.16**
		$U_{27} - L_{26}$			665.73	-----	-295	288	-90	104	231	102	185	82	0.787	0.209	1.00	Yes	0.433	0.115	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.93**
		$U_{28} - L_{27}$			703.63	-----	-317	371	-78	125	272	178	262	179	0.762	0.235	1.00	Yes	0.419	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.04**
		$U_{29} - L_{28}$			617.64	-----	-362	332	-116	114	335	-84	304	143	0.730	0.266	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		$U_{30} - L_{29}$			596.25	-----	-157	379	8	133	263	152	401	111	0.705	0.287	1.00	Yes	0.388	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.61**
		$U_{30} - L_{31}$			735.57	-----	-197	494	19	129	280	166	124	34	0.728	0.271	1.00	Yes	0.400	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.76**
		$U_{31} - L_{32}$			770.75	-----	-449	404	-122	124	179	145	53	61	0.763	0.235	1.00	Yes	0.419	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.52**
		$U_{32} - L_{33}$			914.14	-----	-358	363	-116	129	26	32	-50	-42	0.833	0.161	1.00	Yes	0.458	0.088	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		$U_{33} - L_{34}$			745.09	-----	-320	316	-112	107	-1283	-317	-158	-128	0.679	0.312	1.00	Yes	0.373	0.171	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.02**
		$U_{34} - L_{35}$			820.77	-----	-271	241	-101	90	-368	256	-193	-171	0.812	0.181	1.00	Yes	0.447	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.91**
		$U_{35} - L_{36}$			677.13	-----	-333	235	-117	88	-546	-441	-245	-186	0.733	0.260	1.00	Yes	0.403	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.90**
		$U_{36} - L_{37}$			588.21	-----	-191	157	-59	55	-313	-343	-215	-206	0.750	0.241	1.00	Yes	0.472	0.136	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.53**
		$U_{38} - L_{37}$			-----	-266.28	16	-34	-18	-136	-52	-135	-878	28	-----	-----	-----	-----	-----	-----	-----	-----	0.575	0.419	1	Yes	0.510	0.155	0.67	Yes	1.00	**12.07**
		$U_{39} - L_{38}$			387.29	-224.43	-125	63	69	-65	-254	-476	77	7	0.697	0.298	1.00	Yes	0.383	0.164	0.55	Yes	0.535	0.230	0.77	Yes	0.475	0.160	0.64	Yes	1.00	**9.20**
		$U_{40} - L_{39}$			403.41	-117.65	-134	91	29	-35	-195	-348	39	0	0.726	0.272	1.00	Yes	0.399	0.150	0.55	Yes	0.282	0.184	0.47	Yes	0.249	0.171	0.43	Yes	1.00	**7.07**
		$U_{41} - L_{40}$			584.50	-----	-190	140	-13	-5	-170	-187	27	-5	0.779	0.212	1.00	Yes	0.429	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.39**
		$U_{42} - L_{41}$			652.97	-----	-347	271	-51	30	-123	-151	-5	2	0.772	0.224	1.00	Yes	0.425	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.53**
		$U_{43} - L_{42}$			777.81	-----	-391	312	-71	44	-327	-88	-18	-44	0.769	0.230	1.00	Yes	0.423	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.10**
		$U_{44} - L_{43}$			772.54	-----	-377	368	-124	105	-405	-19	34	-11	0.764	0.236	1.00	Yes	0.420	0.130	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.84**
	Structure 3	$U_0 - L_1$			658.95	-----	-372	311	-64	67	-571	-185	-137	43	0.714	0.284	1.00	Yes	0.393	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.93**
		$U_1 - L_2$			660.15	-----	-330	233	-85	52	-683	-272	35	10	0.715	0.281	1.00	Yes	0.393	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.12**
		$U_2 - L_3$			627.28	-----	-333	251	-67	39	-281	-338	-75	-172	0.742	0.250	1.00	Yes	0.408	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.89**
		$U_3 - L_4$			506.03	-----	-151	104	-15	3	-418	-397	-217	-204	0.742	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.03**
		$U_4 - L_5$			380.64	-26.26	-126	91	-6	-8	-507	-400	-194	-132	0.685	0.308	1.00	Yes	0.377	0.169	0.55	Yes	0.062	0.225	0.29	Yes	0.056	0.161	0.22	Yes	1.00	**6.56**
		$U_5 - L_6$			-----	-75.05	0	-24	-97	-201	-240	-199	-1565	-1759	-----	-----	-----	-----	-----	-----	-----	-----	0.176	0.818	1	Yes	0.159	0.257	0.42	Yes	1.00	**21.09**
		$U_7 - L_6$			437.99	-----	-98	32	-68	-7	-81	-199	-296	-158	0.788	0.211	1.00	Yes	0.433	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.91**
		$U_8 - L_7$			642.68	-----	-196	172	-66	46	-165	-230	-29	-86	0.783	0.216	1.00	Yes	0.493	0.122	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.04**
		$U_8 - L_9$			864.58	-----	-255	170	-77	27	-13	-162	56	-40	0.855	0.142	1.00	Yes	0.470	0.078	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.37**
		$U_{10} - L_9$			1023.02	-----	-216	248	-74	68	150	42	137	56	0.864	0.134	1.00	Yes	0.535	0.075	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.38**
		$U_{11} - L_{10}$			996.02	-----	-294	310	-101	87	458	344	307	197	0.796	0.197	1.00	Yes	0.493	0.111	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.01**
		$U_{12} - L_{11}$			908.03	-----	-48	410	-16	142	-672	322	293	217	0.726	0.268	1.00	Yes	0.450	0.151	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.78**
		$U_{13} - L_{13}$			629.62	-----	-46	357	-4	107	258	195	114	92	0.744	0.250	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.64**
		$U_{13} - L_{14}$			662.16	-----	-284	290	-71	76	235	211	91	114	0.783	0.208	1.00	Yes	0.431	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.47**
		$U_{14} - L_{15}$			699.65	-----	-150	277	-31	69	45	5	37	14	0.827	0.166	1.00	Yes	0.455	0.091	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.23**
		$U_{15} - L_{16}$			499.12	-----	-3	85	-110	-17	210	251	-548	-643	0.732	0.261	1.00	Yes	0.403	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.74**
		$U_{17} - L_{16}$			-----	-319.48	57	-5	-36	-121	259	280	-503	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.731	0.266	1	Yes	0.676	0.154	0.84	Yes	1.00	**9.96**
		$U_{18} - L_{17}$			262.29	-155.02	-76	13	-54	-45	143	-430	-1462	-18	0.472	0.521	1.00	Yes	0.259	0.287	0.55	Yes	0.357	0.439	0.8	Yes	0.328	0.098	0.43	Yes	1.00	**9.04**
		$U_{19} - L_{18}$			447.29	-136.38	-100	27	34	-28	-226	-198	-121	-91	0.804	0.193	1.00	Yes	0.442	0.106	0.55	Yes	0.313	0.152	0.47	Yes	0.289	0.128	0.42	Yes	1.00	**8.71**
		$U_{20} - L_{19}$			616.64	-69.91	-78	64	-20	-1	-379	-195	31	-19	0.809	0.187	1.00	Yes	0.488	0.103	0.60	Yes	0.119	0.142	0.27	Yes	0.108	0.091	0.20	Yes	1.00	**6.68**

Moment (End) AB Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 Vehicle 1.300 Pedestrian
LL Factor: 1.300 1.300

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Upper Chord	Structure 1	$U_0 - U_1$	74.25	-579.25	-231	185	871	-916	-168	227	676	-852	0.085	0.362	0.45	Yes	0.058	0.247	0.31	Yes	0.788	0.123	0.92	Yes	0.781	0.218	1.00	Yes	1.00	**10.83**
		$U_1 - U_2$	59.66	-510.27	-95	134	-322	-703	-165	159	-81	-507	0.068	0.253	0.33	Yes	0.047	0.173	0.22	Yes	0.694	0.299	1	Yes	0.688	0.167	0.86	Yes	1.00	**4.75**
		$U_2 - U_3$	280.77	-577.65	-49	405	-755	-196	-126	187	559	-609	0.322	0.283	0.61	Yes	0.217	0.186	0.41	Yes	0.786	0.204	1	Yes	0.779	0.180	0.96	Yes	1.00	**6.41**
		$U_3 - U_4$	704.03	-610.88	254	566	-531	-513	-255	6	-208	-253	0.807	0.178	0.99	Yes	0.554	0.122	0.68	Yes	0.831	0.164	1	Yes	0.824	0.135	0.96	Yes	1.00	**9.53**
		$U_4 - U_5$	546.62	-573.71	233	438	-637	-175	-117	-19	-376	-170	0.627	0.215	0.85	Yes	0.430	0.147	0.58	Yes	0.781	0.214	1	Yes	0.774	0.151	0.93	Yes	1.00	**7.18**
		$U_5 - U_6$	652.49	-----	-101	828	-100	184	-268	79	-303	-206	0.748	0.248	1.00	Yes	0.504	0.162	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.12**
		$U_6 - U_7$	918.24	-----	273	239	-9	44	0	419	55	-133	0.878	0.116	1.00	Yes	0.614	0.080	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.08**
		$U_7 - U_8$	1001.40	-----	-222	1528	11	766	338	686	541	588	0.694	0.301	1.00	Yes	0.484	0.206	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.41**
		$U_8 - U_9$	797.61	-----	1135	-164	1528	-705	237	464	664	-143	0.654	0.338	1.00	Yes	0.447	0.230	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.97**
		$U_9 - U_{10}$	684.28	-240.01	247	287	291	-703	1	303	564	-535	0.742	0.248	1.00	Yes	0.503	0.166	0.67	Yes	0.309	0.125	0.44	Yes	0.306	0.158	0.47	Yes	1.00	**11.71**
		$U_{10} - U_{11}$	68.04	-637.70	248	-173	192	-794	45	110	227	-458	0.074	0.252	0.33	Yes	0.049	0.162	0.22	Yes	0.821	0.139	0.97	Yes	0.814	0.178	1.00	Yes	1.00	**5.35**
		$U_{11} - U_{12}$	-----	-916.19	139	-217	-16	-804	12	93	80	-231	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.126	1	Yes	0.860	0.133	1.00	Yes	1.00	**3.51**
		$U_{12} - U_{13}$	-----	-1270.16	-59	-271	-498	-599	75	3	732	-462	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.135	1	Yes	0.848	0.083	0.94	Yes	1.00	**4.22**
		$U_{13} - U_{14}$	-----	-1427.51	-199	-505	-542	-1256	-47	-15	-72	-56	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.168	1	Yes	0.818	0.139	0.96	Yes	1.00	**4.12**
		$U_{14} - U_{15}$	-----	-1426.94	-404	-291	-1057	-669	35	-277	-172	-277	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.165	1	Yes	0.818	0.117	0.94	Yes	1.00	**4.29**
		$U_{15} - U_{16}$	-----	-1474.49	-260	-430	-734	-771	-37	-252	-318	-280	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.138	1	Yes	0.845	0.085	0.94	Yes	1.00	**4.90**
		$U_{16} - U_{17}$	-----	-1408.01	-394	-198	-1005	-449	-81	-260	31	-220	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.178	1	Yes	0.807	0.111	0.92	Yes	1.00	**4.91**
		$U_{17} - U_{18}$	-----	-1118.72	-596	-1	-254	-61	-210	-79	-129	73	-----	-----	-----	-----	-----	-----	-----	-----	0.886	0.105	1	Yes	0.875	0.097	0.98	Yes	1.00	**4.55**
		$U_{18} - U_{19}$	-----	-714.39	-570	95	-374	-56	45	-161	576	-140	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.185	1	Yes	0.804	0.115	0.92	Yes	1.00	**4.20**
		$U_{19} - U_{20}$	-----	-714.12	-869	651	-930	-389	19	-242	-87	183	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.169	0.98	Yes	0.803	0.187	1.00	Yes	1.00	**15.13**
	Structure 2	$U_0 - U_1$	-----	-541.97	127	-210	2069	-1756	-29	55	1275	-508	-----	-----	-----	-----	-----	-----	-----	-----	0.644	0.242	0.89	Yes	0.640	0.351	1.00	Yes	1.00	**10.13**
		$U_1 - U_2$	-----	-850.19	-150	-280	-242	-919	-39	59	267	-350	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.164	1	Yes	0.821	0.139	0.96	Yes	1.00	**5.20**
		$U_2 - U_3$	-----	-1187.31	-146	-384	-108	-1122	-34	-34	135	-608	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.143	1	Yes	0.843	0.114	0.96	Yes	1.00	**4.57**
		$U_3 - U_4$	-----	-1431.20	-517	-500	-896	-1288	-122	-25	-8	-344	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.176	1	Yes	0.815	0.115	0.93	Yes	1.00	**3.91**
		$U_4 - U_5$	-----	-1554.05	-566	-512	-1103	-1382	-129	-71	10	-616	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.188	1	Yes	0.798	0.115	0.92	Yes	1.00	**3.80**
		$U_5 - U_6$	-----	-1613.67	-546	51	-1262	-838	-197	-38	-220	-440	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.157	1	Yes	0.828	0.105	0.94	Yes	1.00	**3.84**
		$U_6 - U_7$	-----	-1405.82	-298	-195	-1076	-1232	-170	-88	-188	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.188	1	Yes	0.800	0.110	0.92	Yes	1.00	**3.52**
		$U_7 - U_8$	-----	-1400.18	-336	-183	-1383	-864	-79	-175	-261	-378	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.188	1	Yes	0.797	0.123	0.93	Yes	1.00	**3.52**
		$U_8 - U_9$	-----	-1227.34	-324	242	-1213	-311	-15	-193	-250	-308	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.153	1	Yes	0.832	0.129	0.97	Yes	1.00	**4.11**
		$U_9 - U_{10}$	559.13	-857.21	91	730	-987	-199	-115	-206	-304	-865	0.410	0.214	0.63	Yes	0.278	0.144	0.43	Yes	0.744	0.251	1	Yes	0.740	0.120	0.86	Yes	1.00	**7.13**
		$U_{10} - U_{11}$	904.77	-514.75	414	663	-881	-142	-213	-107	-686	-884	0.764	0.232	1.00	Yes	0.520	0.154	0.68	Yes	0.515	0.278	0.8	Yes	0.512	0.124	0.64	Yes	1.00	**7.61**
		$U_{11} - U_{12}$	925.34	-----	-447	995	-557	230	-389	-182	-611	-583	0.782	0.215	1.00	Yes	0.525	0.143	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.51**
		$U_{12} - U_{13}$	1234.49	-----	780	208	-484	-265	218	715	-488	-571	0.834	0.166	1.00	Yes	0.594	0.114	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.28**
		$U_{13} - U_{14}$	1293.77	-----	-566	3157	-217	1806	413	984	544	773	0.636	0.359	1.00	Yes	0.450	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		$U_{14} - U_{15}$	1252.09	-----	2492	-62	3311	-696	427	593	1019	236	0.616	0.376	1.00	Yes	0.436	0.247	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.91**
		$U_{15} - U_{16}$	1464.15	-----	49	423	65	-660	93	392	273	-309	0.885	0.108	1.00	Yes	0.630	0.073	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.04**
		$U_{16} - U_{17}$	1150.92	-----	598	305	733	-676	-83	325	290	-561	0.848	0.151	1.00	Yes	0.564	0.099	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.88**
		$U_{17} - U_{18}$	830.32	-123.46	432	342	363	-699	-104	285	148	-199	0.833	0.160	1.00	Yes	0.555	0.106	0.67	Yes	0.147	0.139	0.29	Yes	0.146	0.119	0.27	Yes	1.00	**6.01**
		$U_{18} - U_{19}$	775.37	-663.28	558	315	197	-746	-58	182	287	-596	0.778	0.214	1.00	Yes	0.511	0.137	0.65	Yes	0.788	0.138	0.93	Yes	0.783	0.127	0.91	Yes	1.00	**7.06**
		$U_{19} - U_{20}$	396.24	-724.52	275	174	-212	-929	-108	127	-51	-385	0.372	0.201	0.58	Yes	0.246	0.132	0.38	Yes	0.804	0.188	1	Yes	0.799	0.149	0.95	Yes	1.00	**4.59**
		$U_{20} - U_{21}$	348.47	-894.97	156	80	-764	-514	-69	48	580	-508	0.270	0.174	0.45	Yes	0.189	0.115	0.31	Yes	0.823	0.171	1	Yes	0.817	0.111	0.93	Yes	1.00	**4.97**
		$U_{21} - U_{22}$	452.45	-853.38	99	172	-608	-1004	-199	-40	-34	-55	0.351	0.167	0.52	Yes	0.249	0.112	0.37	Yes	0.785	0.213	1	Yes	0.779	0.145	0.93	Yes	1.00	**6.31**
		$U_{22} - U_{23}$	294.97	-870.63	87	17	-875	-644	-92	-139	-194	-185	0.229	0.148	0.38	Yes	0.162	0.099	0.27	Yes	0.800	0.195	1	Yes	0.795	0.127	0.93	Yes	1.00	**4.77**
		$U_{23} - U_{24}$	751.94	-857.93	310	339	-908	-618	19	-9	-700	557	0.583	0.208	0.80	Yes	0.408	0.137	0.55	Yes	0.789	0.208	1	Yes	0.783	0.131	0.92	Yes	1.00	**9.20**
		$U_{24} - U_{25}$	882.82	-681.79	472	500	-745	-269	29	-9	-356	-78	0.828	0.167	1.00	Yes	0.549	0.110	0.66	Yes	0.757	0.141	0.9	Yes	0.752	0.119	0.88	Yes	1.00	**10.00**
		$U_{25} - U_{26}$	-----	-483.33	-1553	2412	-1290	-724	-1417	-178	-465	-1379	-----	-----	-----	-----	-----	-----	-----	-----	0.574	0.417	1	Yes	0.571	0.409	0.99	Yes	1.00	**32.33**
		$U_{26} - U_{27}$	725.03	-----	-437	909	-519	97	-783	70	-358	-633	0.728	0.269	1.00	Yes	0.485	0.178	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.59**
		$U_{27} - U_{28}$	1106.62	-----	-322	1153	-227	361	-199	-35	-220	-301	0.815	0.176	1.00	Yes	0.543	0.116	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.47**
		$U_{28} - U_{29}$	1231.69	-----	1085	330	-635	-258	825	1445	-740	-813	0.745	0.246	1.00	Yes	0.530	0.169	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**14.21**
		$U_{29} - U_{30}$	1301.18	-----	-328	3107	-5	1713	528	1060	814	1037	0.640	0.360	1.00	Yes	0.453	0.237	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.36**
		$U_{30} - U_{31}$	1268.25	-----	2435	-290	3443	-950	608	552	773	95	0.624	0.372	1.00	Yes	0.442	0.244	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.93**
		$U_{31} - U_{32}$	1303.86	-----	92	409	-204	-571	198	398	478	-228	0.880	0.117	1.00	Yes	0.628	0.081	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.28**
		$U_{32} - U_{33}$	948.37	-218.27	635	198	440	-872	15	241	325	-599	0.801	0.196	1.00	Yes	0.538	0.131	0.67	Yes	0.218	0.106	0.33	Yes	0.217	0.123	0.34	Yes	1.00	**6.44**
		$U_{33} - U_{34}$	700.14	-846.70	524	216	-25	-1101	-18	229	287	-315	0.591	0.194	0.79	Yes	0.402	0.126	0.53	Yes	0.847	0.142	0.99	Yes	0.841	0.155	1.00	Yes	1.00	**6.70**
		$U_{34} - U_{35}$	126.72	-1001.58	408	-174	-83	-1067	46	47	247	-454	0.093	0.179	0.28	Yes	0.063	0.121	0.19	Yes	0.869	0.126	1	Yes	0.864	0.130	1.00	Yes	1.00	**4.23**
		$U_{35} - U_{36}$	-----	-1261.53	113	-453	-320	-1088	-15	92	78	-215	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.130	1	Yes	0.856	0.116	0.98	Yes	1.00	**3.47**
		$U_{36} - U_{37}$	-----	-1442.49	-284	-307	-878	-1289	-18	-118	11	-256	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.169	1	Yes	0.821	0.115	0.94	Yes	1.00	**3.21**
		$U_{37} - U_{38}$	-----	-1429.59	-196	-420	-1185	-1066	-94	-194	-171	-341	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.178	1	Yes	0.814	0.106	0.92	Yes	1.00	**3.15**
		$U_{38} - U_{39}$	-----	-1639.98	-126	-616	-939	-1213	13	-201	-228	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.148	1	Yes	0.842	0.101	0.95	Yes	1.00	**3.69**
		$U_{39} - U_{40}$	-----	-1584.60	-617	-514	-1414	-929	26	-104	-286	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.172	1	Yes	0.814	0.117	0.94	Yes	1.00	**3.87**
		$U_{40} - U_{41}$	-----	-1473.54	-491	-481	-1179	-823	108	-147	-110	-190	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.154	1	Yes	0.839	0.105	0.95	Yes	1.00	**4.30**
		$U_{41} - U_{42}$	-----	-1215.28	-1274	-29	-878	-140	-135	-128	-126	-105	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.130	1	Yes	0.862	0.130	1.00	Yes	1.00	**5.09**
		$U_{42} - U_{43}$	-----	-874.09	-888	69	-444	-57	-168	-233	457	-173	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.141	1	Yes	0.844	0.135	0.98	Yes	1.00	**5.93**
		$U_{43} - U_{44}$	-----	-638.29	-539	189	-862	-596	-25	-187	-12	174	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.235	1	Yes	0.754	0.146	0.91	Yes	1.00	**14.74**
	Structure 3	$U_0 - U_1$	-----	-537.89	362	-292	1943	-1481	78	77	1328	-849	-----	-----	-----	-----	-----	-----	-----	-----	0.611	0.292	0.91	Yes	0.605	0.391	1.00	Yes	1.00	**12.43**
		$U_1 - U_2$	-----	-734.09	-81	-222	-68	-702	-21	13	191	-339	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.164	1	Yes	0.826	0.141	0.97	Yes	1.00	**5.05**
		$U_2 - U_3$	-----	-1083.89	-53	-238	35	-596	-29	-48	142	-689	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.132	1	Yes	0.848	0.097	0.95	Yes	1.00	**4.75**
		$U_3 - U_4$	-----	-1373.59	-219	-371	-458	-1279	-101	-37	-214	-561	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.201	1	Yes	0.787	0.141	0.93	Yes	1.00	**4.45**
		$U_4 - U_5$	-----	-1433.81	-438	-143	-1078	-473	-89	-49	537	-637	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.163	1	Yes	0.822	0.119	0.95	Yes	1.00	**4.41**
		$U_5 - U_6$	-----	-1369.27	-260	-382	-646	-1176	-180	-152	-228	-171	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.198	1	Yes	0.785	0.130	0.92	Yes	1.00	**4.29**
		$U_6 - U_7$	-----	-1400.71	-493	-157	-1230	-513	-121	-300	-261	-365	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.182	1	Yes	0.803	0.136	0.94	Yes	1.00	**4.60**
		$U_7 - U_8$	-----	-1218.43	-254	-10	-702	-206	-119	-336	-368	-487	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.169	1	Yes	0.814	0.097	0.92	Yes	1.00	**3.82**
		$U_8 - U_9$	-----	-768.19	-66	322	-691	-8	-244	-188	-648	-767	-----	-----	-----	-----	-----	-----	-----	-----	0.727	0.264	1	Yes	0.721	0.115	0.84	Yes	1.00	**7.88**
		$U_9 - U_{10}$	-----	-428.93	-1819	1439	-962	55	-1137	-328	-1546	-1087	-----	-----	-----	-----	-----	-----	-----	-----	0.552	0.442	1	Yes	0.547	0.407	0.96	Yes	1.00	**29.76**
		$U_{10} - U_{11}$	713.22	-----	-22	481	30	109	-729	316	-30	-69	0.774	0.225	1.00	Yes	0.524	0.151	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.02**
		$U_{11} - U_{12}$	832.53	-----	-453	1469	-163	757	-31	510	388	548	0.682	0.314	1.00	Yes	0.467	0.213	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.55**
		$U_{12} - U_{13}$	961.77	-----	1177	-20	1852	-680	74	443	419	-199	0.666	0.326	1.00	Yes	0.465	0.222	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.63**
		$U_{13} - U_{14}$	854.26	-----	218	362	13	-462	-98	372	-37	-562	0.817	0.176	1.00	Yes	0.571	0.121	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.79**
		$U_{14} - U_{15}$	638.10	-276.62	455	222	26	-365	-54	260	901	-608	0.731	0.260	1.00	Yes	0.493	0.173	0.67	Yes	0.376	0.176	0.56	Yes	0.373	0.108	0.49	Yes	1.00	**6.99**
		$U_{15} - U_{16}$	451.88	-613.18	362	206	-215	-703	-70	257	15	67	0.518	0.211	0.73	Yes	0.355	0.144	0.50	Yes	0.834	0.162	1	Yes	0.827	0.167	1.00	Yes	1.00	**7.56**
		$U_{16} - U_{17}$	374.24	-643.31	378	66	-402	-527	195	-57	76	-140	0.429	0.158	0.59	Yes	0.294	0.108	0.41	Yes	0.875	0.091	0.97	Yes	0.867	0.125	1.00	Yes	1.00	**6.40**
		$U_{17} - U_{18}$	128.51	-644.68	258	-164	-411	-529	76	49	-48	-86	0.147	0.140	0.29	Yes	0.099	0.091	0.20	Yes	0.877	0.090	0.97	Yes	0.869	0.126	1.00	Yes	1.00	**5.35**
		$U_{18} - U_{19}$	86.67	-520.89	102	-56	-531	-230	248	-186	679	-490	0.099	0.241	0.35	Yes	0.068	0.164	0.24	Yes	0.709	0.287	1	Yes	0.702	0.126	0.83	Yes	1.00	**9.53**
		$U_{19} - U_{20}$	-----	-541.41	-230	35	-492	-800	-203	-141	-180	-52	-----	-----	-----	-----	-----	-----	-----	-----	0.737	0.254	1	Yes	0.730	0.190	0.93	Yes	1.00	**13.90**

Moment (End) AB Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Lower Chord	Structure 1	L_0 - L_1			26.23	-205.12	-286	154	641	-1080	62	228	-513	-1884	0.040	0.729	0.77	Yes	0.024	0.434	0.46	Yes	0.372	0.618	1	Yes	0.369	0.324	0.70	Yes	1.00	**22.86**
		L_1 - L_2			377.66	-50.15	-20	62	87	-795	396	-180	-813	464	0.578	0.413	1.00	Yes	0.353	0.269	0.63	Yes	0.091	0.237	0.33	Yes	0.090	0.239	0.33	Yes	1.00	**6.57**
		L_2 - L_3			642.41	-173.01	-9	111	-735	-511	-194	134	211	-516	0.739	0.260	1.00	Yes	0.428	0.155	0.59	Yes	0.236	0.233	0.47	Yes	0.234	0.177	0.42	Yes	1.00	**6.06**
		L_3 - L_4			665.42	-402.45	49	441	-537	-350	346	-279	-638	287	0.766	0.232	1.00	Yes	0.455	0.146	0.61	Yes	0.550	0.147	0.7	Yes	0.545	0.130	0.68	Yes	1.00	**7.23**
		L_4 - L_5			-----	-546.56	-119	605	-288	284	329	-38	-226	217	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.145	0.99	Yes	0.833	0.160	1.00	Yes	1.00	**5.16**
		L_5 - L_6			-----	-737.87	14	663	-41	316	69	-197	52	-237	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.133	1	Yes	0.851	0.147	1.00	Yes	1.00	**4.41**
		L_6 - L_7			-----	-1161.21	-238	254	229	-95	-4	407	-250	239	-----	-----	-----	-----	-----	-----	-----	-----	0.945	0.045	1	Yes	0.935	0.040	0.98	Yes	1.00	**5.84**
		L_7 - L_8			-----	-1262.64	-64	1185	-29	704	338	487	412	271	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.189	1	Yes	0.800	0.157	0.96	Yes	1.00	**3.00**
		L_8 - L_9			-----	-1245.37	991	-11	1212	-105	220	326	525	237	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.192	1	Yes	0.789	0.160	0.95	Yes	1.00	**4.57**
		L_9 - L_{10}			-----	-1087.00	104	158	722	-763	432	-294	-486	354	-----	-----	-----	-----	-----	-----	-----	-----	0.885	0.060	0.95	Yes	0.875	0.120	1.00	Yes	1.00	**11.08**
		L_{10} - L_{11}			-----	-528.55	422	-96	329	-709	-260	53	-150	-199	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.123	0.94	Yes	0.805	0.188	1.00	Yes	1.00	**6.78**
		L_{11} - L_{12}			516.73	-86.95	345	-238	327	-850	132	-87	-564	501	0.669	0.324	1.00	Yes	0.401	0.209	0.62	Yes	0.134	0.136	0.27	Yes	0.132	0.225	0.36	Yes	1.00	**5.74**
		L_{12} - L_{13}			1062.77	-----	46	-161	-428	-549	-157	122	-49	-507	0.839	0.156	1.00	Yes	0.536	0.095	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.37**
		L_{13} - L_{14}			1325.48	-----	182	-526	-106	-1238	147	18	-550	455	0.780	0.216	1.00	Yes	0.505	0.133	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.30**
		L_{14} - L_{15}			1606.02	-----	-567	-152	-1486	-407	-148	164	450	18	0.785	0.211	1.00	Yes	0.510	0.128	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.36**
		L_{15} - L_{16}			1736.84	-----	-303	-361	-929	-1042	117	-132	-2	338	0.849	0.149	1.00	Yes	0.545	0.088	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.94**
		L_{16} - L_{17}			1295.74	-----	-1080	118	-449	25	234	-141	-146	118	0.819	0.179	1.00	Yes	0.532	0.111	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.41**
		L_{17} - L_{18}			965.21	-----	-604	86	-374	-39	-246	-151	-99	-292	0.840	0.154	1.00	Yes	0.538	0.093	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.68**
		L_{18} - L_{19}			461.70	-----	-864	472	-256	185	7	-92	-151	153	0.707	0.291	1.00	Yes	0.478	0.181	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.19**
		L_{19} - L_{20}			75.13	-294.11	-1542	1030	-151	52	-77	-17	139	31	0.115	0.492	0.61	Yes	0.070	0.333	0.41	Yes	0.534	0.245	0.78	Yes	0.530	0.463	1.00	Yes	1.00	**19.91**
	Structure 2	L_0 - L_1			41.73	-433.53	-66	-121	516	-1723	34	118	-281	-975	0.051	0.511	0.57	Yes	0.030	0.323	0.36	Yes	0.623	0.376	1	Yes	0.619	0.351	0.98	Yes	1.00	**14.86**
		L_1 - L_2			452.06	-----	125	-230	598	-1483	169	-115	-896	732	0.549	0.449	1.00	Yes	0.327	0.284	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.37**
		L_2 - L_3			1041.96	-----	-77	-213	93	-972	-80	143	294	-124	0.821	0.172	1.00	Yes	0.538	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.02**
		L_3 - L_4			1348.05	-----	-27	-450	-7	-1383	189	-32	-396	485	0.792	0.201	1.00	Yes	0.533	0.125	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.11**
		L_4 - L_5			1803.65	-----	-416	-347	-1089	-1234	-96	157	504	83	0.841	0.151	1.00	Yes	0.557	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.00**
		L_5 - L_6			1883.39	-----	-204	-420	-724	-1746	197	-96	-140	469	0.808	0.184	1.00	Yes	0.542	0.113	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.43**
		L_6 - L_7			1898.22	-----	-525	-173	-1813	-1377	-160	221	362	-562	0.803	0.194	1.00	Yes	0.534	0.115	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.93**
		L_7 - L_8			1387.44	-57.02	-289	413	-1339	-408	226	-137	-597	334	0.796	0.197	1.00	Yes	0.523	0.118	0.65	Yes	0.039	0.146	0.19	Yes	0.038	0.148	0.19	Yes	1.00	**4.66**
		L_8 - L_9			1111.96	-1056.19	249	847	-951	158	-50	218	-35	46	0.778	0.149	0.93	Yes	0.524	0.093	0.62	Yes	0.876	0.069	0.95	Yes	0.869	0.128	1.00	Yes	1.00	**10.49**
		L_9 - L_{10}			458.33	-817.79	-107	867	-594	58	138	-174	-127	-125	0.409	0.160	0.57	Yes	0.238	0.099	0.34	Yes	0.865	0.072	0.94	Yes	0.859	0.139	1.00	Yes	1.00	**6.24**
		L_{10} - L_{11}			76.32	-725.06	-355	809	-563	433	400	54	-174	-224	0.076	0.195	0.28	Yes	0.045	0.121	0.17	Yes	0.857	0.105	0.97	Yes	0.852	0.142	1.00	Yes	1.00	**5.46**
		L_{11} - L_{12}			-----	-1006.48	-331	1268	-368	661	111	-279	-162	-576	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.152	0.99	Yes	0.825	0.173	1.00	Yes	1.00	**3.74**
		L_{12} - L_{13}			-----	-1501.96	-598	-168	173	-851	61	290	-358	34	-----	-----	-----	-----	-----	-----	-----	-----	0.906	0.088	1	Yes	0.898	0.085	0.99	Yes	1.00	**5.75**
		L_{13} - L_{14}			-----	-1505.74	-947	2713	-531	1554	189	372	507	465	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.191	0.96	Yes	0.758	0.237	1.00	Yes	1.00	**3.16**
		L_{14} - L_{15}			-----	-1506.89	1625	-531	2670	-891	356	304	377	222	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.178	0.95	Yes	0.758	0.233	1.00	Yes	1.00	**2.80**
		L_{15} - L_{16}			-----	-1508.45	-889	175	-380	-366	136	-264	-27	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.910	0.082	1	Yes	0.902	0.088	1.00	Yes	1.00	**6.45**
		L_{16} - L_{17}			-----	-1138.69	1172	143	1338	-651	-343	-6	-102	-404	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.134	0.98	Yes	0.829	0.165	1.00	Yes	1.00	**8.52**
		L_{17} - L_{18}			-----	-833.44	477	391	740	-723	138	-295	-421	376	-----	-----	-----	-----	-----	-----	-----	-----	0.881	0.075	0.96	Yes	0.875	0.118	1.00	Yes	1.00	**6.69**
		L_{18} - L_{19}			-----	-647.89	682	123	345	-579	-239	38	270	-82	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.109	0.98	Yes	0.863	0.132	1.00	Yes	1.00	**6.02**
		L_{19} - L_{20}			533.44	-581.18	504	284	283	-1150	179	-217	-552	664	0.604	0.323	0.93	Yes	0.357	0.203	0.57	Yes	0.779	0.114	0.9	Yes	0.775	0.222	1.00	Yes	1.00	**7.32**
		L_{20} - L_{21}			967.98	-450.01	438	74	-809	-1000	-189	42	7	-717	0.772	0.223	1.00	Yes	0.506	0.137	0.65	Yes	0.425	0.181	0.61	Yes	0.422	0.146	0.57	Yes	1.00	**6.98**
		L_{21} - L_{22}			946.10	-276.87	182	14	-592	-1300	143	-189	-485	449	0.754	0.242	1.00	Yes	0.505	0.153	0.66	Yes	0.262	0.192	0.46	Yes	0.260	0.190	0.45	Yes	1.00	**5.85**
		L_{22} - L_{23}			916.91	-341.99	73	188	-1500	-382	-75	190	450	-53	0.731	0.267	1.00	Yes	0.489	0.168	0.66	Yes	0.323	0.213	0.54	Yes	0.321	0.219	0.54	Yes	1.00	**6.63**
		L_{23} - L_{24}			997.38	-900.98	344	721	-1005	-594	166	-180	-292	468	0.795	0.197	1.00	Yes	0.522	0.119	0.65	Yes	0.851	0.132	0.99	Yes	0.845	0.147	1.00	Yes	1.00	**13.52**
		L_{24} - L_{25}			650.25	-3.25	-820	694	-518	156	641	-307	-83	70	0.737	0.256	1.00	Yes	0.436	0.160	0.60	Yes	0.004	0.090	0.1	Yes	0.004	0.158	0.17	Yes	1.00	**9.01**
		L_{25} - L_{26}			222.66	-616.59	-373	893	-305	129	-43	0	-39	-112	0.252	0.190	0.45	Yes	0.146	0.113	0.26	Yes	0.827	0.108	0.94	Yes	0.822	0.172	1.00	Yes	1.00	**6.49**
		L_{26} - L_{27}			-----	-836.71	-210	737	195	389	124	64	-86	318	-----	-----	-----	-----	-----	-----	-----	-----	0.885	0.097	0.99	Yes	0.879	0.118	1.00	Yes	1.00	**4.80**
		L_{27} - L_{28}			-----	-1122.35	-213	1435	-219	741	166	-45	58	-201	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.140	0.97	Yes	0.817	0.177	1.00	Yes	1.00	**4.05**
		L_{28} - L_{29}			-----	-1443.32	-49	-321	109	-1341	60	283	-38	75	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.128	1	Yes	0.863	0.133	1.00	Yes	1.00	**6.04**
		L_{29} - L_{30}			-----	-1499.46	-1049	2747	-628	1470	224	369	634	722	-----	-----	-----	-----	-----	-----	-----	-----	0.761	0.201	0.97	Yes	0.755	0.240	1.00	Yes	1.00	**3.45**
		L_{30} - L_{31}			-----	-1541.92	1726	-524	2527	-850	518	411	244	55	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.181	0.97	Yes	0.776	0.221	1.00	Yes	1.00	**2.24**
		L_{31} - L_{32}			-----	-1512.43	-560	187	-249	-758	208	-273	-84	291	-----	-----	-----	-----	-----	-----	-----	-----	0.912	0.086	1	Yes	0.905	0.075	0.99	Yes	1.00	**7.12**
		L_{32} - L_{33}			-----	-1030.33	1068	-53	847	-589	-337	2	73	-60	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.118	0.97	Yes	0.845	0.145	1.00	Yes	1.00	**4.33**
		L_{33} - L_{34}			-----	-740.03	580	-6	584	-691	90	-129	-214	316	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.064	0.94	Yes	0.869	0.121	1.00	Yes	1.00	**4.14**
		L_{34} - L_{35}			567.49	-772.02	849	-94	171	-1170	-202	86	385	-119	0.507	0.233	0.75	Yes	0.295	0.144	0.44	Yes	0.816	0.111	0.93	Yes	0.811	0.187	1.00	Yes	1.00	**7.53**
		L_{35} - L_{36}			1081.82	-401.94	628	-100	255	-1236	160	-135	-510	730	0.757	0.236	1.00	Yes	0.510	0.149	0.66	Yes	0.333	0.133	0.47	Yes	0.331	0.167	0.50	Yes	1.00	**6.93**
		L_{36} - L_{37}			1383.28	-----	327	-241	-530	-1481	-199	148	505	-492	0.793	0.205	1.00	Yes	0.521	0.122	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.23**
		L_{37} - L_{38}			1822.76	-----	-295	-615	-1611	-1880	117	-181	-1020	535	0.771	0.228	1.00	Yes	0.513	0.137	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.65**
		L_{38} - L_{39}			1842.65	-----	-565	-213	-1860	-698	-106	174	636	139	0.791	0.205	1.00	Yes	0.531	0.126	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.13**
		L_{39} - L_{40}			1805.69	-----	-405	-299	-1378	-950	135	-117	130	320	0.842	0.152	1.00	Yes	0.557	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.54**
		L_{40} - L_{41}			1387.90	-----	-1346	95	-1171	-59	121	-260	232	-175	0.815	0.178	1.00	Yes	0.549	0.110	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.64**
		L_{41} - L_{42}			1049.46	-----	-1033	208	-213	-88	-217	-73	143	-67	0.827	0.172	1.00	Yes	0.542	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.98**
		L_{42} - L_{43}			577.18	-----	-1284	583	-271	142	193	12	-135	156	0.701	0.293	1.00	Yes	0.417	0.189	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.64**
		L_{43} - L_{44}			128.66	-263.82	-3058	1342	75	-137	381	111	-59	-17	0.156	0.685	0.85	Yes	0.093	0.442	0.54	Yes	0.379	0.427	0.81	Yes	0.377	0.622	1.00	Yes	1.00	**31.50**
	Structure 3	L_0 - L_1			-----	-451.66	53	-170	331	-614	27	122	-43	-193	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.134	0.96	Yes	0.813	0.184	1.00	Yes	1.00	**5.92**
		L_1 - L_2			162.52	-39.15	138	-188	987	-1702	160	-115	-745	1153	0.249	0.750	1.00	Yes	0.168	0.478	0.65	Yes	0.071	0.684	0.76	Yes	0.070	0.511	0.59	Yes	1.00	**16.53**
		L_2 - L_3			890.51	-----	-19	-201	183	-757	-64	168	577	-112	0.775	0.220	1.00	Yes	0.496	0.134	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.51**
		L_3 - L_4			1147.75	-----	19	-407	119	-1327	192	-4	-343	826	0.726	0.268	1.00	Yes	0.471	0.167	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.22**
		L_4 - L_5			1638.49	-----	-386	-249	-1282	-927	-37	224	221	-631	0.801	0.199	1.00	Yes	0.514	0.118	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.09**
		L_5 - L_6			1600.23	-----	-141	-458	-564	-1413	255	-30	-428	624	0.782	0.214	1.00	Yes	0.508	0.131	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.31**
		L_6 - L_7			1301.79	-----	-1320	330	-861	121	543	-66	-172	61	0.766	0.227	1.00	Yes	0.496	0.140	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.13**
		L_7 - L_8			1107.59	-77.60	-89	186	-538	-181	145	-198	-144	145	0.874	0.119	1.00	Yes	0.559	0.071	0.64	Yes	0.073	0.097	0.18	Yes	0.072	0.096	0.17	Yes	1.00	**8.75**
		L_8 - L_9			578.84	-----	-728	631	-542	241	291	-319	-200	-181	0.750	0.249	1.00	Yes	0.450	0.162	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.91**
		L_9 - L_{10}			21.41	-551.52	-337	573	-283	221	27	-107	-72	-349	0.028	0.213	0.25	Yes	0.016	0.127	0.15	Yes	0.848	0.079	0.93	Yes	0.840	0.152	1.00	Yes	1.00	**5.78**
		L_{10} - L_{11}			-----	-1073.52	-647	810	108	-114	243	330	-396	-335	-----	-----	-----	-----	-----	-----	-----	-----	0.874	0.070	0.95	Yes	0.864	0.127	1.00	Yes	1.00	**11.78**
		L_{11} - L_{12}			-----	-1270.16	-84	1184	-46	695	111	124	364	140	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.177	1	Yes	0.804	0.157	0.97	Yes	1.00	**3.26**
		L_{12} - L_{13}			-----	-1133.11	987	-24	1323	-96	-88	78	19	2	-----	-----	-----	-----	-----	-----	-----	-----	0.727	0.267	1	Yes	0.718	0.175	0.90	Yes	1.00	**3.47**
		L_{13} - L_{14}			-----	-1106.11	19	211	314	-538	226	-261	-148	171	-----	-----	-----	-----	-----	-----	-----	-----	0.900	0.095	1	Yes	0.890	0.084	0.98	Yes	1.00	**5.62**
		L_{14} - L_{15}			-----	-726.79	575	109	151	-284	-259	75	-182	-599	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.144	1	Yes	0.839	0.127	0.97	Yes	1.00	**5.11**
		L_{15} - L_{16}			189.66	-557.80	482	144	176	-508	258	-223	-651	525	0.246	0.250	0.50	Yes	0.147	0.159	0.31	Yes	0.858	0.133	1	Yes	0.850	0.134	0.99	Yes	1.00	**5.89**
		L_{16} - L_{17}			722.39	-192.88	416	-29	-440	-398	-172	160	360	-49	0.831	0.164	1.00	Yes	0.494	0.104	0.60	Yes	0.264	0.134	0.4	Yes	0.261	0.106	0.37	Yes	1.00	**6.33**
		L_{17} - L_{18}			731.79	-80.53	110	-67	-523	-447	94	-109	-148	67	0.842	0.150	1.00	Yes	0.487	0.090	0.58	Yes	0.110	0.164	0.28	Yes	0.109	0.126	0.24	Yes	1.00	**7.21**
		L_{18} - L_{19}			470.26	-----	-674	77	-35	-86	228	156	-323	80	0.720	0.272	1.00	Yes	0.439	0.180	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.90**
		L_{19} - L_{20}			235.68	-101.12	-1397	1400	525	-643	-989	-268	199	54	0.361	0.632	1.00	Yes	0.212	0.382	0.60	Yes	0.184	0.447	0.64	Yes	0.182	0.420	0.61	Yes	1.00	**55.36**

Moment (End) AB Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 (Vehicle) 1.300 (Pedestrian)
LL Factor: 1.300 1.300

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-299.72	-57	152	-8	42	-783	-251	231	74	-----	-----	-----	-----	-----	-----	-----	-----	0.669	0.325	1	Yes	0.634	0.195	0.83	Yes	1.00	**2.57**
		$U_1 - L_1$	41.04	-305.40	-234	226	43	-35	-935	-386	609	209	0.074	0.570	0.65	Yes	0.041	0.314	0.36	Yes	0.667	0.325	1	Yes	0.646	0.300	0.95	Yes	1.00	**5.28**
		$U_2 - L_2$	68.69	-133.86	-28	60	66	-71	-2708	-818	747	241	0.124	0.875	1.00	Yes	0.068	0.481	0.55	Yes	0.293	0.671	0.97	Yes	0.283	0.091	0.38	Yes	1.00	**4.00**
		$U_3 - L_3$	206.77	-0.58	37	-31	230	-242	-1070	-330	-698	-619	0.372	0.620	1.00	Yes	0.205	0.341	0.55	Yes	0.001	0.549	0.55	Yes	0.001	0.310	0.32	Yes	1.00	**7.18**
		$U_4 - L_4$	-----	-186.54	74	-75	366	-378	686	333	-600	-230	-----	-----	-----	-----	-----	-----	-----	-----	0.410	0.586	1	Yes	0.395	0.483	0.88	Yes	1.00	**11.08**
		$U_5 - L_5$	-----	-362.57	79	-85	181	-199	1102	629	152	212	-----	-----	-----	-----	-----	-----	-----	-----	0.656	0.339	1	Yes	0.626	0.202	0.83	Yes	1.00	**4.45**
		$U_6 - L_6$	-----	-423.47	78	-66	171	-179	1455	724	-1336	-316	-----	-----	-----	-----	-----	-----	-----	-----	0.641	0.351	1	Yes	0.607	0.157	0.77	Yes	1.00	**4.00**
		$U_7 - L_7$	-----	-331.10	124	-139	235	-258	884	226	487	98	-----	-----	-----	-----	-----	-----	-----	-----	0.553	0.441	1	Yes	0.511	0.254	0.77	Yes	1.00	**2.01**
		$U_8 - L_8$	-----	-1183.21	-428	508	134	-168	-1344	-611	747	93	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.141	1	Yes	0.820	0.095	0.92	Yes	1.00	**6.68**
		$U_9 - L_9$	-----	-656.64	-409	456	-230	262	-377	-128	588	221	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.177	0.96	Yes	0.742	0.254	1.00	Yes	1.00	**3.50**
		$U_{10} - L_{10}$	-----	-777.30	-397	440	-163	145	-401	-32	694	312	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.188	1	Yes	0.767	0.228	1.00	Yes	1.00	**5.15**
		$U_{11} - L_{11}$	-----	-664.49	-382	482	-166	217	-734	-121	622	359	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.194	1	Yes	0.773	0.224	1.00	Yes	1.00	**4.88**
		$U_{12} - L_{12}$	-----	-423.68	-210	227	-137	139	-1967	-533	664	369	-----	-----	-----	-----	-----	-----	-----	-----	0.612	0.384	1	Yes	0.581	0.194	0.78	Yes	1.00	**3.06**
		$U_{13} - L_{13}$	-----	-346.20	-163	188	-85	101	-655	-15	552	249	-----	-----	-----	-----	-----	-----	-----	-----	0.700	0.296	1	Yes	0.663	0.215	0.88	Yes	1.00	**4.89**
		$U_{14} - L_{14}$	-----	-171.59	-93	107	-6	7	-1630	-470	-2009	-591	-----	-----	-----	-----	-----	-----	-----	-----	0.383	0.613	1	Yes	0.363	0.137	0.51	Yes	1.00	**9.79**
		$U_{15} - L_{15}$	31.08	-256.76	-31	27	176	-201	456	96	-1312	-416	0.056	0.637	0.70	Yes	0.031	0.350	0.39	Yes	0.576	0.419	1	Yes	0.543	0.257	0.81	Yes	1.00	**9.00**
		$U_{16} - L_{16}$	-----	-318.02	37	-42	238	-250	484	106	-667	-199	-----	-----	-----	-----	-----	-----	-----	-----	0.717	0.273	0.99	Yes	0.673	0.319	1.00	Yes	1.00	**7.06**
		$U_{17} - L_{17}$	-----	-418.97	77	-90	199	-220	504	197	-106	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.211	1	Yes	0.723	0.223	0.95	Yes	1.00	**4.45**
		$U_{18} - L_{18}$	-----	-457.55	186	-192	370	-383	687	177	465	134	-----	-----	-----	-----	-----	-----	-----	-----	0.670	0.321	1	Yes	0.636	0.217	0.86	Yes	1.00	**3.21**
		$U_{19} - L_{19}$	-----	-566.88	193	-207	407	-431	600	116	564	89	-----	-----	-----	-----	-----	-----	-----	-----	0.708	0.292	1	Yes	0.660	0.200	0.86	Yes	1.00	**3.85**
		$U_{20} - L_{20}$	-----	-501.35	244	-294	406	-471	458	60	377	50	-----	-----	-----	-----	-----	-----	-----	-----	0.663	0.329	1	Yes	0.584	0.218	0.81	Yes	1.00	**2.66**
	Structure 2	$U_0 - L_0$	-----	-640.55	-255	442	-155	257	-857	-145	59	10	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.227	1	Yes	0.686	0.188	0.88	Yes	1.00	**2.69**
		$U_1 - L_1$	-----	-713.91	-548	551	-187	195	-437	-110	618	150	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.145	0.97	Yes	0.765	0.234	1.00	Yes	1.00	**4.57**
		$U_2 - L_2$	-----	-598.53	-434	459	-135	150	-395	159	619	265	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.175	0.98	Yes	0.763	0.235	1.00	Yes	1.00	**4.17**
		$U_3 - L_3$	-----	-460.44	-208	228	-65	76	-233	135	546	254	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.211	1	Yes	0.722	0.208	0.93	Yes	1.00	**3.48**
		$U_4 - L_4$	-----	-317.70	-182	196	-3	14	-611	10	574	224	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.271	1	Yes	0.672	0.250	0.93	Yes	1.00	**4.65**
		$U_5 - L_5$	115.08	-254.87	-135	167	89	-84	-1144	-160	579	168	0.207	0.545	0.76	Yes	0.114	0.300	0.42	Yes	0.576	0.416	1	Yes	0.539	0.214	0.76	Yes	1.00	**7.15**
		$U_6 - L_6$	197.39	-----	-53	59	119	-132	-1644	-369	599	161	0.355	0.645	1.00	Yes	0.195	0.355	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.33**
		$U_7 - L_7$	-----	-176.24	62	-70	246	-286	-54	-55	-745	-168	-----	-----	-----	-----	-----	-----	-----	-----	0.398	0.596	1	Yes	0.373	0.365	0.74	Yes	1.00	**11.09**
		$U_8 - L_8$	-----	-468.70	169	-184	346	-369	611	183	-602	-240	-----	-----	-----	-----	-----	-----	-----	-----	0.680	0.191	0.88	Yes	0.675	0.323	1.00	Yes	1.00	**4.66**
		$U_9 - L_9$	-----	-692.04	278	-280	562	-586	1045	565	-536	-158	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.205	0.98	Yes	0.742	0.248	1.00	Yes	1.00	**5.43**
		$U_{10} - L_{10}$	-----	-755.77	236	-235	519	-524	1160	717	-219	93	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.252	1	Yes	0.707	0.231	0.94	Yes	1.00	**4.83**
		$U_{11} - L_{11}$	-----	-725.31	227	-219	442	-451	1200	692	392	376	-----	-----	-----	-----	-----	-----	-----	-----	0.730	0.261	1	Yes	0.678	0.199	0.88	Yes	1.00	**4.00**
		$U_{12} - L_{12}$	-----	-725.04	183	-164	415	-414	1485	653	746	443	-----	-----	-----	-----	-----	-----	-----	-----	0.696	0.304	1	Yes	0.628	0.178	0.81	Yes	1.00	**3.95**
		$U_{13} - L_{13}$	-----	-623.02	217	-216	519	-513	1174	309	106	-15	-----	-----	-----	-----	-----	-----	-----	-----	0.694	0.304	1	Yes	0.601	0.248	0.85	Yes	1.00	**4.33**
		$U_{14} - L_{14}$	-----	-1158.57	-499	460	527	-506	-1353	-719	823	92	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.150	1	Yes	0.768	0.093	0.87	Yes	1.00	**8.02**
		$U_{15} - L_{15}$	-----	-685.53	-631	615	-249	259	-683	-162	624	56	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.231	1	Yes	0.661	0.302	0.97	Yes	1.00	**4.97**
		$U_{16} - L_{16}$	-----	-711.34	-494	479	-159	127	-471	-93	795	157	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.172	1	Yes	0.762	0.209	0.98	Yes	1.00	**4.53**
		$U_{17} - L_{17}$	-----	-642.87	-520	526	-191	183	-491	8	673	150	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.165	0.96	Yes	0.748	0.244	1.00	Yes	1.00	**4.46**
		$U_{18} - L_{18}$	-----	-581.92	-456	489	-173	161	-609	-33	660	167	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.172	0.95	Yes	0.742	0.250	1.00	Yes	1.00	**4.38**
		$U_{19} - L_{19}$	-----	-478.00	-285	287	-108	104	-722	-50	562	174	-----	-----	-----	-----	-----	-----	-----	-----	0.719	0.207	0.93	Yes	0.714	0.277	1.00	Yes	1.00	**4.27**
		$U_{20} - L_{20}$	-----	-357.14	-183	195	-59	62	-714	-136	586	137	-----	-----	-----	-----	-----	-----	-----	-----	0.732	0.259	1	Yes	0.684	0.223	0.91	Yes	1.00	**5.79**
		$U_{21} - L_{21}$	-----	-278.24	-164	186	-31	33	-1018	-214	661	111	-----	-----	-----	-----	-----	-----	-----	-----	0.629	0.364	1	Yes	0.589	0.238	0.83	Yes	1.00	**7.97**
		$U_{22} - L_{22}$	-----	-161.43	-45	54	111	-128	-1836	-580	-2208	-730	-----	-----	-----	-----	-----	-----	-----	-----	0.363	0.632	1	Yes	0.342	0.163	0.51	Yes	1.00	**11.09**
		$U_{23} - L_{23}$	-----	-311.16	35	-39	210	-232	643	239	-698	-201	-----	-----	-----	-----	-----	-----	-----	-----	0.703	0.294	1	Yes	0.658	0.297	0.96	Yes	1.00	**6.26**
		$U_{24} - L_{24}$	-----	-316.05	78	-81	164	-175	633	240	-1071	-135	-----	-----	-----	-----	-----	-----	-----	-----	0.648	0.348	1	Yes	0.605	0.200	0.81	Yes	1.00	**2.61**
		$U_{25} - L_{25}$	-----	-470.56	113	-111	304	-298	629	252	-50	89	-----	-----	-----	-----	-----	-----	-----	-----	0.708	0.194	0.91	Yes	0.703	0.292	1.00	Yes	1.00	**3.59**
		$U_{26} - L_{26}$	-----	-581.55	172	-168	484	-502	716	313	48	215	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.188	0.97	Yes	0.741	0.257	1.00	Yes	1.00	**4.26**
		$U_{27} - L_{27}$	-----	-589.50	195	-188	507	-510	1282	600	325	307	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.272	1	Yes	0.686	0.237	0.93	Yes	1.00	**4.34**
		$U_{28} - L_{28}$	-----	-597.19	116	-86	435	-417	1779	590	633	365	-----	-----	-----	-----	-----	-----	-----	-----	0.690	0.302	1	Yes	0.640	0.184	0.83	Yes	1.00	**4.80**
		$U_{29} - L_{29}$	-----	-607.80	109	-116	598	-593	1257	181	-166	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.677	0.315	1	Yes	0.586	0.286	0.88	Yes	1.00	**5.91**
		$U_{30} - L_{30}$	-----	-1169.89	-672	598	252	-267	-1134	-309	647	-111	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.141	1	Yes	0.776	0.119	0.90	Yes	1.00	**7.19**
		$U_{31} - L_{31}$	-----	-626.39	-468	459	-309	303	-1320	-73	462	88	-----	-----	-----	-----	-----	-----	-----	-----	0.698	0.292	1	Yes	0.604	0.224	0.83	Yes	1.00	**2.71**
		$U_{32} - L_{32}$	-----	-861.81	-466	465	-212	180	-551	-55	577	159	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.164	1	Yes	0.747	0.200	0.95	Yes	1.00	**4.57**
		$U_{33} - L_{33}$	-----	-822.80	-488	497	-247	227	-648	8	521	205	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.171	1	Yes	0.769	0.219	0.99	Yes	1.00	**4.91**
		$U_{34} - L_{34}$	-----	-775.34	-488	525	-246	238	-1019	-78	475	195	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.229	1	Yes	0.725	0.232	0.96	Yes	1.00	**5.49**
		$U_{35} - L_{35}$	-----	-694.33	-530	575	-270	274	-1117	-197	596	302	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.221	1	Yes	0.744	0.244	0.99	Yes	1.00	**5.97**
		$U_{36} - L_{36}$	-----	-471.49	-330	359	-151	168	-1148	-158	559	265	-----	-----	-----	-----	-----	-----	-----	-----	0.684	0.305	0.99	Yes	0.679	0.314	1.00	Yes	1.00	**5.52**
		$U_{37} - L_{37}$	-----	-165.23	-166	197	-69	81	-1497	-266	466	131	-----	-----	-----	-----	-----	-----	-----	-----	0.373	0.626	1	Yes	0.350	0.252	0.61	Yes	1.00	**8.81**
		$U_{38} - L_{38}$	176.69	-89.77	-121	133	131	-136	478	144	-1749	-623	0.318	0.680	1.00	Yes	0.175	0.374	0.55	Yes	0.202	0.474	0.68	Yes	0.190	0.174	0.37	Yes	1.00	**8.49**
		$U_{39} - L_{39}$	70.75	-294.62	-63	58	192	-216	521	154	-854	-249	0.127	0.524	0.66	Yes	0.070	0.288	0.36	Yes	0.666	0.331	1	Yes	0.623	0.276	0.90	Yes	1.00	**6.59**
		$U_{40} - L_{40}$	-----	-327.49	24	-33	216	-222	590	168	-191	-59	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.254	1	Yes	0.693	0.284	0.98	Yes	1.00	**4.48**
		$U_{41} - L_{41}$	-----	-463.79	80	-88	232	-246	570	188	59	52	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.209	1	Yes	0.727	0.224	0.96	Yes	1.00	**3.67**
		$U_{42} - L_{42}$	-----	-577.85	157	-166	493	-501	665	169	57	95	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.171	0.95	Yes	0.736	0.256	1.00	Yes	1.00	**4.73**
		$U_{43} - L_{43}$	-----	-708.38	175	-194	521	-548	635	186	359	156	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.155	0.97	Yes	0.759	0.233	1.00	Yes	1.00	**5.67**
		$U_{44} - L_{44}$	-----	-671.37	242	-297	504	-620	538	91	306	52	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.189	1	Yes	0.720	0.263	0.99	Yes	1.00	**4.81**
	Structure 3	$U_0 - L_0$	-----	-586.36	-238	401	-134	236	-658	-86	114	15	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.222	1	Yes	0.682	0.186	0.87	Yes	1.00	**2.87**
		$U_1 - L_1$	-----	-649.08	-516	507	-207	206	-471	-42	618	142	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.162	0.98	Yes	0.755	0.240	1.00	Yes	1.00	**4.60**
		$U_2 - L_2$	-----	-544.99	-377	404	-159	170	-490	106	660	306	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.193	1	Yes	0.758	0.229	0.99	Yes	1.00	**4.05**
		$U_3 - L_3$	-----	-409.50	-187	209	-70	85	-384	97	567	271	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.232	1	Yes	0.706	0.212	0.92	Yes	1.00	**3.23**
		$U_4 - L_4$	-----	-229.68	-122	139	-46	53	-1993	-96	585	231	-----	-----	-----	-----	-----	-----	-----	-----	0.518	0.480	1	Yes	0.486	0.177	0.67	Yes	1.00	**3.24**
		$U_5 - L_5$	45.38	-164.94	-77	94	47	-45	-1636	-229	673	208	0.082	0.594	0.68	Yes	0.045	0.327	0.38	Yes	0.370	0.626	1	Yes	0.349	0.121	0.47	Yes	1.00	**8.65**
		$U_6 - L_6$	-----	-178.90	51	-57	275	-308	616	187	-1063	-364	-----	-----	-----	-----	-----	-----	-----	-----	0.399	0.596	1	Yes	0.379	0.394	0.78	Yes	1.00	**11.50**
		$U_7 - L_7$	-----	-368.89	102	-118	225	-253	543	180	-273	-85	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.229	0.98	Yes	0.707	0.289	1.00	Yes	1.00	**4.59**
		$U_8 - L_8$	-----	-487.76	157	-154	315	-315	1044	590	-110	68	-----	-----	-----	-----	-----	-----	-----	-----	0.705	0.290	1	Yes	0.669	0.269	0.94	Yes	1.00	**5.02**
		$U_9 - L_9$	-----	-598.74	182	-227	373	-463	1317	789	257	302	-----	-----	-----	-----	-----	-----	-----	-----	0.718	0.281	1	Yes	0.697	0.215	0.92	Yes	1.00	**5.28**
		$U_{10} - L_{10}$	-----	-635.49	153	-141	313	-328	1676	924	641	512	-----	-----	-----	-----	-----	-----	-----	-----	0.658	0.340	1	Yes	0.627	0.170	0.80	Yes	1.00	**5.00**
		$U_{11} - L_{11}$	-----	-511.73	218	-254	343	-395	1040	492	714	367	-----	-----	-----	-----	-----	-----	-----	-----	0.610	0.389	1	Yes	0.578	0.220	0.80	Yes	1.00	**1.85**
		$U_{12} - L_{12}$	-----	-1134.35	-383	407	273	-371	-1545	-464	1038	283	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.172	1	Yes	0.786	0.076	0.87	Yes	1.00	**7.45**
		$U_{13} - L_{13}$	-----	-448.34	-293	313	-154	169	-405	-118	533	55	-----	-----	-----	-----	-----	-----	-----	-----	0.749	0.213	0.97	Yes	0.692	0.308	1.00	Yes	1.00	**3.30**
		$U_{14} - L_{14}$	-----	-413.59	-179	203	-101	90	-1569	-447	726	257	-----	-----	-----	-----	-----	-----	-----	-----	0.626	0.366	1	Yes	0.593	0.177	0.78	Yes	1.00	**2.90**
		$U_{15} - L_{15}$	-----	-401.52	-139	163	-79	85	-548	-470	738	240	-----	-----	-----	-----	-----	-----	-----	-----	0.726	0.273	1	Yes	0.693	0.165	0.86	Yes	1.00	**5.15**
		$U_{16} - L_{16}$	-----	-191.62	-180	184	-71	75	-1620	-726	-758	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.421	0.574	1	Yes	0.405	0.235	0.65	Yes	1.00	**10.51**
		$U_{17} - L_{17}$	181.34	-89.09	-180	202	35	-57	480	178	-1411	-615	0.326	0.666	1.00	Yes	0.179	0.367	0.55	Yes	0.195	0.418	0.62	Yes	0.189	0.258	0.45	Yes	1.00	**10.62**
		$U_{18} - L_{18}$	152.28	-254.87	-158	172	200	-235	468	147	-1339	-494	0.274	0.688	0.97	Yes	0.151	0.379	0.53	Yes	0.557	0.439	1	Yes	0.539	0.301	0.85	Yes	1.00	**12.04**
		$U_{19} - L_{19}$	-----	-294.79	-28	11	177	-199	438	218	480	237	-----	-----	-----	-----	-----	-----	-----	-----	0.644	0.346	1	Yes	0.624	0.254	0.88	Yes	1.00	**5.55**
		$U_{20} - L_{20}$	-----	-240.37	85	-99	175	-209	597	191	589	189	-----	-----	-----	-----	-----	-----	-----	-----	0.537	0.458	1	Yes	0.509	0.267	0.78	Yes	1.00	**2.47**

Moment (End) AB Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Diagonals	Structure 1	U_0 - L_1			564.32	-72.44	4	32	3	-14	-865	-483	135	200	0.740	0.255	1.00	Yes	0.447	0.140	0.59	Yes	0.124	0.268	0.4	Yes	0.112	0.037	0.15	Yes	1.00	**6.17**
		U_1 - L_2			338.79	-----	-92	6	-73	-24	-929	-464	-803	-781	0.609	0.386	1.00	Yes	0.335	0.212	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.94**
		U_2 - L_3			-----	-247.99	0	-15	-12	-48	182	53	-1548	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.571	0.420	1	Yes	0.525	0.062	0.59	Yes	1.00	**5.44**
		U_3 - L_4			-----	-296.52	33	-8	10	-74	580	362	-794	-269	-----	-----	-----	-----	-----	-----	-----	-----	0.678	0.321	1	Yes	0.627	0.094	0.73	Yes	1.00	**6.18**
		U_4 - L_4			557.37	-----	-64	95	-51	26	297	189	-359	-175	0.817	0.180	1.00	Yes	0.450	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.52**
		U_5 - L_5			649.18	-----	-119	282	-44	103	185	355	-250	30	0.767	0.225	1.00	Yes	0.422	0.124	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.16**
		U_5 - L_6			616.99	-----	-248	293	-42	94	-53	29	-549	31	0.729	0.267	1.00	Yes	0.401	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.92**
		U_6 - L_7			635.23	-----	-42	361	23	103	140	-33	-213	-132	0.751	0.244	1.00	Yes	0.413	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.81**
		U_8 - L_9			958.40	-----	-33	406	-3	180	-382	-219	282	160	0.766	0.230	1.00	Yes	0.475	0.129	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.11**
		U_8 - L_{10}			983.76	-----	-286	280	-122	116	-669	-422	346	154	0.786	0.213	1.00	Yes	0.487	0.120	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.63**
		U_{10} - L_{11}			932.11	-----	-213	211	-95	91	-846	-684	81	-102	0.787	0.209	1.00	Yes	0.487	0.120	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.56**
		U_{11} - L_{12}			744.82	-----	-234	85	-107	43	-829	-1000	64	-113	0.737	0.258	1.00	Yes	0.405	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.54**
		U_{12} - L_{13}			569.40	-----	-204	142	-83	61	-651	-584	121	-15	0.694	0.305	1.00	Yes	0.437	0.174	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.19**
		U_{13} - L_{14}			284.54	-----	-50	42	-84	-40	155	-62	-1298	-744	0.512	0.483	1.00	Yes	0.281	0.266	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.12**
		U_{15} - L_{14}			-----	-148.04	15	-19	-145	-242	-429	323	1202	-148	-----	-----	-----	-----	-----	-----	-----	-----	0.347	0.651	1	Yes	0.313	0.309	0.63	Yes	1.00	**45.11**
		U_{16} - L_{15}			388.97	-20.86	-155	87	-12	-8	322	27	-298	-124	0.700	0.291	1.00	Yes	0.385	0.160	0.55	Yes	0.049	0.174	0.23	Yes	0.044	0.198	0.25	Yes	1.00	**9.41**
		U_{17} - L_{16}			529.23	-----	-149	96	-44	21	98	0	-311	-110	0.776	0.224	1.00	Yes	0.427	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.63**
		U_{18} - L_{17}			618.19	-----	-338	254	-128	86	77	55	-405	-118	0.731	0.265	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.18**
		U_{19} - L_{18}			690.20	-----	-327	247	-130	94	-96	45	-458	-206	0.748	0.243	1.00	Yes	0.411	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.40**
		U_{20} - L_{19}			687.48	-----	-416	334	-179	145	-165	-138	-258	-141	0.745	0.255	1.00	Yes	0.410	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.78**
	Structure 2	U_0 - L_1			713.68	-----	-187	277	-97	122	-1067	-353	-127	20	0.706	0.288	1.00	Yes	0.388	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.92**
		U_1 - L_2			705.68	-----	-381	291	-151	107	-791	-571	171	-6	0.698	0.295	1.00	Yes	0.384	0.162	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.82**
		U_2 - L_3			577.07	-----	-309	247	-104	76	-761	-542	156	-2	0.682	0.313	1.00	Yes	0.375	0.172	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.75**
		U_3 - L_4			514.62	-----	-167	109	-44	19	-759	-484	194	29	0.686	0.311	1.00	Yes	0.377	0.171	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.81**
		U_4 - L_5			312.39	-76.82	-125	72	13	-26	-954	-459	271	61	0.562	0.436	1.00	Yes	0.309	0.240	0.55	Yes	0.190	0.419	0.61	Yes	0.163	0.160	0.33	Yes	1.00	**5.72**
		U_5 - L_6			243.97	-239.69	-84	2	69	-69	-1414	-497	403	128	0.439	0.516	0.96	Yes	0.241	0.284	0.53	Yes	0.566	0.430	1	Yes	0.507	0.107	0.62	Yes	1.00	**8.58**
		U_6 - L_7			-----	-377.34	-3	-44	41	-101	-250	-551	-620	-180	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.184	1	Yes	0.723	0.116	0.84	Yes	1.00	**6.97**
		U_8 - L_7			545.01	-----	-175	144	-99	55	281	124	-598	-688	0.695	0.297	1.00	Yes	0.437	0.170	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.01**
		U_8 - L_9			581.17	-----	-292	225	-199	128	1323	162	-448	-415	0.629	0.367	1.00	Yes	0.346	0.202	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.92**
		U_{10} - L_9			788.46	-----	-276	251	-151	137	84	550	-200	-27	0.780	0.210	1.00	Yes	0.429	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.05**
		U_{11} - L_{10}			871.79	-----	-308	341	-146	164	235	281	-388	139	0.794	0.198	1.00	Yes	0.437	0.109	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		U_{12} - L_{11}			829.11	-----	-300	362	-126	176	-14	282	-604	65	0.755	0.236	1.00	Yes	0.415	0.130	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.42**
		U_{13} - L_{12}			734.02	-----	-418	385	-157	162	-239	165	-533	-6	0.726	0.274	1.00	Yes	0.399	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.39**
		U_{14} - L_{13}			703.05	-----	-184	449	-8	120	606	122	-157	-118	0.696	0.299	1.00	Yes	0.383	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.87**
		U_{14} - L_{15}			579.16	-----	-153	363	6	152	-102	-43	562	256	0.685	0.307	1.00	Yes	0.377	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.64**
		U_{15} - L_{16}			585.84	-----	-347	319	-154	149	52	-370	603	197	0.693	0.306	1.00	Yes	0.381	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.26**
		U_{16} - L_{17}			685.12	-----	-327	356	-121	156	-427	-306	356	126	0.742	0.252	1.00	Yes	0.408	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.28**
		U_{17} - L_{18}			628.91	-----	-282	279	-105	134	-505	-323	389	126	0.744	0.251	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.90**
		U_{18} - L_{19}			604.19	-----	-276	248	-76	109	-686	-480	367	146	0.714	0.280	1.00	Yes	0.393	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.49**
		U_{19} - L_{20}			528.24	-----	-172	166	-36	58	-820	-397	447	229	0.674	0.322	1.00	Yes	0.370	0.185	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.48**
		U_{20} - L_{21}			353.89	-----	-114	97	-15	25	-748	-332	417	223	0.636	0.363	1.00	Yes	0.350	0.199	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.15**
		U_{21} - L_{22}			69.26	-96.77	-4	56	-27	-108	533	347	-2285	-907	0.125	0.800	0.93	Yes	0.069	0.440	0.51	Yes	0.229	0.763	1	Yes	0.205	0.138	0.35	Yes	1.00	**12.76**
		U_{23} - L_{22}			363.13	-----	-114	49	-51	-36	690	169	367	-48	0.653	0.346	1.00	Yes	0.359	0.190	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.87**
		U_{24} - L_{23}			409.30	-----	-129	102	-41	30	250	85	-327	-191	0.736	0.259	1.00	Yes	0.405	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.65**
		U_{25} - L_{24}			564.16	-----	-179	165	-74	72	129	569	-322	-169	0.719	0.277	1.00	Yes	0.396	0.158	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.06**
		U_{26} - L_{25}			661.69	-----	-261	293	-66	124	283	249	-197	80	0.782	0.217	1.00	Yes	0.430	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.40**
		U_{27} - L_{26}			631.43	-----	-266	307	-81	129	108	272	-431	141	0.747	0.252	1.00	Yes	0.411	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.08**
		U_{28} - L_{27}			657.72	-----	-280	350	-70	128	-50	220	-632	31	0.712	0.283	1.00	Yes	0.392	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.37**
		U_{29} - L_{28}			581.26	-----	-342	322	-63	80	10	573	-633	-77	0.687	0.308	1.00	Yes	0.378	0.170	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.70**
		U_{30} - L_{29}			583.05	-----	-137	372	62	37	533	96	-282	-250	0.689	0.307	1.00	Yes	0.379	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.87**
		U_{30} - L_{31}			730.09	-----	-257	434	-51	216	-477	-247	443	202	0.722	0.273	1.00	Yes	0.397	0.150	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.72**
		U_{31} - L_{32}			739.94	-----	-429	381	-229	212	-439	-253	314	82	0.732	0.265	1.00	Yes	0.403	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.51**
		U_{32} - L_{33}			820.31	-----	-337	331	-154	192	-756	-528	304	82	0.747	0.247	1.00	Yes	0.411	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.03**
		U_{33} - L_{34}			807.12	-----	-285	307	-168	160	-932	-509	154	-50	0.735	0.258	1.00	Yes	0.404	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.80**
		U_{34} - L_{35}			755.66	-----	-260	256	-149	130	-852	-511	48	-107	0.748	0.248	1.00	Yes	0.411	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.97**
		U_{35} - L_{36}			645.38	-----	-291	237	-214	122	-886	-484	5	-364	0.699	0.295	1.00	Yes	0.384	0.162	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.70**
		U_{36} - L_{37}			514.19	-----	-174	143	-82	64	-916	-610	90	-69	0.656	0.342	1.00	Yes	0.413	0.197	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.34**
		U_{38} - L_{37}			-----	-357.42	12	-42	33	-92	-324	-197	382	-91	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.222	1	Yes	0.685	0.105	0.79	Yes	1.00	**7.56**
		U_{39} - L_{38}			377.16	-211.49	-124	41	59	-65	545	-90	-365	-80	0.678	0.316	1.00	Yes	0.373	0.174	0.55	Yes	0.504	0.314	0.82	Yes	0.448	0.159	0.61	Yes	1.00	**9.06**
		U_{40} - L_{39}			393.31	-39.01	-139	90	2	-16	154	39	-378	-100	0.707	0.287	1.00	Yes	0.389	0.158	0.55	Yes	0.093	0.168	0.27	Yes	0.083	0.178	0.27	Yes	1.00	**5.82**
		U_{41} - L_{40}			558.50	-----	-178	125	-51	25	6	6	-413	-181	0.744	0.249	1.00	Yes	0.409	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.14**
		U_{42} - L_{41}			619.06	-----	-326	262	-112	83	-34	36	-409	-173	0.732	0.259	1.00	Yes	0.403	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.25**
		U_{43} - L_{42}			772.06	-----	-375	309	-125	93	-90	84	-388	-200	0.764	0.232	1.00	Yes	0.420	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.43**
		U_{44} - L_{43}			791.19	-----	-406	384	-154	146	54	58	-167	22	0.783	0.213	1.00	Yes	0.431	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.81**
	Structure 3	U_0 - L_1			655.36	-----	-176	232	-78	102	-1039	-382	-147	4	0.710	0.289	1.00	Yes	0.390	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.16**
		U_1 - L_2			635.28	-----	-339	243	-159	109	-798	-537	160	-42	0.688	0.305	1.00	Yes	0.378	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.82**
		U_2 - L_3			561.98	-----	-303	240	-125	86	-874	-618	128	-29	0.664	0.330	1.00	Yes	0.365	0.181	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.12**
		U_3 - L_4			459.32	-----	-133	73	-43	21	-666	-802	150	-29	0.674	0.322	1.00	Yes	0.370	0.177	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.71**
		U_4 - L_5			278.94	-49.30	-139	63	-1	-14	-1079	-668	269	52	0.502	0.490	1.00	Yes	0.276	0.269	0.55	Yes	0.117	0.389	0.51	Yes	0.104	0.177	0.29	Yes	1.00	**10.03**
		U_5 - L_6			-----	-210.06	-3	-33	18	-105	135	-30	-1071	-422	-----	-----	-----	-----	-----	-----	-----	-----	0.492	0.502	1	Yes	0.444	0.134	0.58	Yes	1.00	**6.75**
		U_7 - L_6			412.80	-----	-90	39	-48	11	106	-135	-473	-221	0.742	0.252	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.84**
		U_8 - L_7			629.17	-----	-203	165	-93	70	242	112	-241	-103	0.767	0.225	1.00	Yes	0.483	0.126	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.91**
		U_8 - L_9			833.82	-----	-232	156	-106	54	440	381	-266	-35	0.825	0.173	1.00	Yes	0.454	0.095	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.75**
		U_{10} - L_9			959.69	-----	-187	246	-92	100	469	511	-202	50	0.811	0.181	1.00	Yes	0.502	0.102	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.38**
		U_{11} - L_{10}			988.75	-----	-279	318	-83	107	485	423	-531	-33	0.790	0.209	1.00	Yes	0.490	0.118	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.19**
		U_{12} - L_{11}			950.25	-----	-23	406	13	143	413	279	-421	-85	0.760	0.235	1.00	Yes	0.471	0.132	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.60**
		U_{12} - L_{13}			584.06	-----	-51	319	-21	149	2	-44	666	200	0.691	0.303	1.00	Yes	0.380	0.166	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		U_{13} - L_{14}			637.06	-----	-278	248	-116	118	-218	-446	424	136	0.753	0.240	1.00	Yes	0.414	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.85**
		U_{14} - L_{15}			506.15	-----	-151	211	-69	101	-1509	-242	125	-312	0.598	0.394	1.00	Yes	0.329	0.217	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.68**
		U_{15} - L_{16}			397.88	-----	-5	96	-69	-5	529	292	-1337	-800	0.583	0.409	1.00	Yes	0.321	0.225	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.40**
		U_{17} - L_{16}			-----	-345.24	56	-8	-41	-67	-246	5	246	-451	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.209	1	Yes	0.731	0.085	0.82	Yes	1.00	**10.21**
		U_{18} - L_{17}			341.56	-201.32	-137	3	-22	-60	6	-422	706	4	0.614	0.379	1.00	Yes	0.338	0.208	0.55	Yes	0.463	0.369	0.84	Yes	0.426	0.175	0.61	Yes	1.00	**22.55**
		U_{19} - L_{18}			461.96	-220.38	-84	6	41	-30	110	53	-207	-118	0.831	0.167	1.00	Yes	0.457	0.092	0.55	Yes	0.506	0.163	0.67	Yes	0.466	0.107	0.58	Yes	1.00	**11.78**
		U_{20} - L_{19}			615.98	-18.83	-142	81	-30	3	-4	22	-70	-5	0.808	0.183	1.00	Yes	0.488	0.101	0.59	Yes	0.032	0.090	0.13	Yes	0.029	0.166	0.20	Yes	1.00	**7.59**

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Upper Chord	Structure 1	U$_1$ - U$_1$	-71.60	19.15	-53.99			0.90	1.00	17.23	-48.59	0.00	0.00	Vehicle	Vehicle	-----	-198.36	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	6.10	10.16
		U$_1$ - U$_2$	-90.76	38.61	-95.11			0.90	1.00	34.75	-85.60	0.00	0.00	Vehicle	Vehicle	-----	-303.44	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	3.33	5.54
		U$_2$ - U$_3$	-61.05	57.17	-119.47			0.90	1.00	51.45	-107.52	0.00	0.00	Vehicle	Vehicle	-----	-312.32	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	2.81	4.69
		U$_3$ - U$_4$	10.82	74.66	-124.49			0.90	1.00	67.20	-112.04	0.00	0.00	Vehicle	159.65	-228.69	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	5.90	9.83	3.09	5.14
		U$_4$ - U$_5$	12.98	75.06	-123.96			0.90	1.00	67.55	-111.56	0.00	0.00	Vehicle	163.23	-224.84	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	5.85	9.74	3.11	5.18
		U$_5$ - U$_6$	121.44	86.50	-79.60			0.90	1.00	77.85	-71.64	0.00	0.00	Vehicle	Vehicle	326.54	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	4.24	7.06	-----	-----
		U$_6$ - U$_7$	249.52	95.39	-28.02			0.90	1.00	85.85	-25.22	0.00	0.00	Vehicle	Vehicle	510.39	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	3.88	6.46	-----	-----
		U$_7$ - U$_8$	376.85	127.37	-7.67			0.90	1.00	114.64	-6.90	0.00	0.00	Vehicle	Vehicle	738.28	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	3.84	6.40	-----	-----
		U$_8$ - U$_9$	319.70	122.36	0.00			0.90	1.00	110.12	0.00	0.00	0.00	Vehicle	Vehicle	654.20	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	3.37	5.62	-----	-----
		U$_9$ - U$_{10}$	128.80	75.05	-16.30			0.90	1.00	67.54	-14.67	0.00	0.00	Vehicle	Vehicle	313.78	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	-----	-----	42.67	-----	-----	10.67	-----	-----	5.16	8.59	-----	-----
		U$_{10}$ - U$_{11}$	-70.81	68.62	-78.70			0.90	1.00	61.76	-70.83	0.00	0.00	Vehicle	Vehicle	-----	-245.53	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.46	7.43
		U$_{11}$ - U$_{12}$	-252.85	61.59	-136.53			0.90	1.00	55.43	-122.87	0.00	0.00	Vehicle	Vehicle	-----	-594.93	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	2.73	4.56
		U$_{12}$ - U$_{13}$	-391.81	53.31	-185.74			0.90	1.00	47.98	-167.16	0.00	0.00	Vehicle	Vehicle	-----	-871.53	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	44.61	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	2.68	4.46
		U$_{13}$ - U$_{14}$	-482.83	44.84	-219.83			0.90	1.00	40.36	-197.85	0.00	0.00	Vehicle	Vehicle	-----	-1056.35	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.73	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.56	4.27
		U$_{14}$ - U$_{15}$	-484.28	44.68	-219.96			0.90	1.00	40.21	-197.96	0.00	0.00	Vehicle	Vehicle	-----	-1058.49	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.69	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.56	4.26
		U$_{15}$ - U$_{16}$	-501.86	34.35	-207.32			0.90	1.00	30.92	-186.59	0.00	0.00	Vehicle	Vehicle	-----	-1056.69	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.73	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.66	4.43
		U$_{16}$ - U$_{17}$	-467.82	24.98	-179.29			0.90	1.00	22.48	-161.36	0.00	0.00	Vehicle	Vehicle	-----	-957.79	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.20	5.33
		U$_{17}$ - U$_{18}$	-368.70	15.40	-130.34			0.90	1.00	13.86	-117.30	0.00	0.00	Vehicle	Vehicle	-----	-733.47	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	44.92	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	3.08	5.13
		U$_{18}$ - U$_{19}$	-251.42	7.65	-79.55			0.90	1.00	6.88	-71.59	0.00	0.00	Vehicle	Vehicle	-----	-481.96	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	3.57	5.95
		U$_{19}$ - U$_{20}$	-117.77	1.79	-28.39			0.90	1.00	1.61	-25.55	0.00	0.00	Vehicle	Vehicle	-----	-208.46	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	13.14	21.90
	Structure 2	U$_0$ - U$_1$	-118.16	8.76	-46.39			0.90	1.00	7.88	-41.75	0.00	0.00	Vehicle	Vehicle	-----	-244.07	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	7.61	12.68
		U$_1$ - U$_2$	-239.45	20.07	-97.86			0.90	1.00	18.06	-88.07	0.00	0.00	Vehicle	Vehicle	-----	-502.10	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.76	6.27
		U$_2$ - U$_3$	-350.29	33.38	-148.96			0.90	1.00	30.04	-134.06	0.00	0.00	Vehicle	Vehicle	-----	-745.84	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.69	4.00	0.69	16.00	95.35	272.00	30.22	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.25	5.42
		U$_3$ - U$_4$	-448.96	49.60	-199.01			0.90	1.00	44.64	-179.11	0.00	0.00	Vehicle	Vehicle	-----	-977.52	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.99	4.98
		U$_4$ - U$_5$	-483.05	63.60	-256.92			0.90	1.00	59.25	-212.69	0.00	0.00	Vehicle	Vehicle	-----	-1088.78	15.15	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.83	4.72
		U$_5$ - U$_6$	-485.65	82.93	-264.90			0.90	1.00	74.63	-238.41	0.00	0.00	Vehicle	Vehicle	-----	-1147.88	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.33	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.52	4.20
		U$_6$ - U$_7$	-428.66	97.82	-270.01			0.90	1.00	88.04	-243.01	0.00	0.00	Vehicle	Vehicle	-----	-1083.78	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	43.32	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.25	3.76
		U$_7$ - U$_8$	-428.18	98.05	-269.73			0.90	1.00	88.24	-242.76	0.00	0.00	Vehicle	Vehicle	-----	-1082.61	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	43.35	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.26	3.76
		U$_8$ - U$_9$	-335.25	111.96	-241.10			0.90	1.00	100.77	-216.99	0.00	0.00	Vehicle	Vehicle	-----	-905.96	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	43.42	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	2.19	3.64
		U$_9$ - U$_{10}$	-200.15	120.62	-191.29			0.90	1.00	108.55	-172.16	0.00	0.00	Vehicle	Vehicle	-----	-633.22	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	2.39	3.98
		U$_{10}$ - U$_{11}$	-52.03	127.56	-133.70			0.90	1.00	114.80	-120.33	0.00	0.00	Vehicle	Vehicle	181.09	-328.35	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	5.03	8.39	3.58	5.96
		U$_{11}$ - U$_{12}$	107.09	126.68	-68.59			0.90	1.00	114.01	-61.73	0.00	0.00	Vehicle	Vehicle	386.24	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	4.23	7.05	-----	-----
		U$_{12}$ - U$_{13}$	259.37	125.24	-37.31			0.90	1.00	112.72	-33.58	0.00	0.00	Vehicle	Vehicle	581.40	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	4.68	7.81	-----	-----
		U$_{13}$ - U$_{14}$	391.99	177.13	-22.77			0.90	1.00	159.42	-20.49	0.00	0.00	Vehicle	Vehicle	854.99	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.41	7.35	-----	-----
		U$_{14}$ - U$_{15}$	439.40	186.59	-7.52			0.90	1.00	167.93	-2.27	0.00	0.00	Vehicle	Vehicle	935.07	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.02	6.70	-----	-----
		U$_{15}$ - U$_{16}$	369.68	145.32	0.00			0.90	1.00	130.78	0.00	0.00	0.00	Vehicle	Vehicle	763.95	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	4.14	6.90	-----	-----
		U$_{16}$ - U$_{17}$	271.42	103.55	-6.15			0.90	1.00	93.19	-5.53	0.00	0.00	Vehicle	Vehicle	554.76	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	4.97	8.29	-----	-----
		U$_{17}$ - U$_{18}$	171.80	107.54	-43.58			0.90	1.00	96.78	-39.22	0.00	0.00	Vehicle	Vehicle	433.03	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	3.69	6.14	-----	-----
		U$_{18}$ - U$_{19}$	72.84	110.22	-93.72			0.90	1.00	99.19	-84.35	0.00	0.00	Vehicle	Vehicle	309.61	-88.07	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	4.19	6.99	5.12	8.54
		U$_{19}$ - U$_{20}$	-8.04	113.48	-140.07			0.90	1.00	102.13	-126.06	0.00	0.00	Vehicle	Vehicle	210.82	-283.59	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	4.87	8.11	3.26	5.43
	Structure 3	U$_0$ - U$_1$	-60.07	114.69	-177.01			0.90	1.00	103.22	-159.31	0.00	0.00	Vehicle	Vehicle	145.55	-423.27	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.11	10.19	2.93	4.88
		U$_1$ - U$_2$	-82.15	115.46	-200.71			0.90	1.00	103.91	-180.64	0.00	0.00	Vehicle	Vehicle	118.35	-498.19	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.20	10.33	2.51	4.18
		U$_2$ - U$_3$	-82.37	115.57	-200.74			0.90	1.00	104.01	-180.67	0.00	0.00	Vehicle	Vehicle	118.27	-498.53	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.20	10.33	2.51	4.18
		U$_3$ - U$_4$	-65.94	113.96	-185.81			0.90	1.00	102.56	-167.23	0.00	0.00	Vehicle	Vehicle	136.50	-448.05	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.19	10.31	2.77	4.61
		U$_4$ - U$_5$	-11.58	111.75	-155.98			0.90	1.00	100.57	-140.39	0.00	0.00	Vehicle	Vehicle	194.52	-327.55	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	5.00	8.33	2.88	4.81
		U$_5$ - U$_6$	54.95	107.17	-109.28			0.90	1.00	96.45	-98.35	0.00	0.00	Vehicle	Vehicle	280.42	-141.66	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	4.42	7.37	4.28	7.14
		U$_6$ - U$_7$	135.89	102.60	-56.75			0.90	1.00	92.34	-51.08	0.00	0.00	Vehicle	Vehicle	376.73	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	4.10	6.83	-----	-----
		U$_7$ - U$_8$	216.69	96.02	-17.95			0.90	1.00	86.42	-16.16	0.00	0.00	Vehicle	Vehicle	468.94	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	5.74	9.57	-----	-----
		U$_8$ - U$_9$	293.53	142.46	-5.58			0.90	1.00	128.22	-5.02	0.00	0.00	Vehicle	Vehicle	659.39	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	4.58	7.63	-----	-----
		U$_9$ - U$_{10}$	357.86	192.26	0.00			0.90	1.00	173.03	0.00	0.00	0.00	Vehicle	Vehicle	840.13	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.18	6.97	-----	-----
		U$_{10}$ - U$_{11}$	339.12	194.11	0.00			0.90	1.00	174.70	0.00	0.00	0.00	Vehicle	Vehicle	819.37	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.21	7.01	-----	-----
		U$_{11}$ - U$_{12}$	251.34	146.71	-11.51			0.90	1.00	132.04	-10.36	0.00	0.00	Vehicle	Vehicle	612.83	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Axial Force Rating

Location	Member	Member Forces from STAAD: D (kips)	LL+ (kips)	LL- (kips)	Pedestrian Load+	Pedestrian Load-	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL+	Lane Reduction and Impact LL-	Impact & Pedestrian Load+	Impact & Pedestrian Load-	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A_deduct (in²) **	A_gross (in²)	A_net (in²)	C_Nominal (kips)	Member Capacity in Compression: C_c	L (feet)	r_min (in)	KL/r_min ***	F_crit **** (ksi)	C_nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Lower Chord																																														
Structure 1	L_0 - L_1	4.73	7.69	-4.34			0.90	1.00	6.92	-3.91	0.00	0.00	Vehicle	Vehicle	21.14	-----	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**43.16**	**71.94**	-----	-----
	L_1 - L_2	74.19	53.05	-22.77			0.90	1.00	47.75	-20.49	0.00	0.00	Vehicle	Vehicle	199.90	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**5.38**	**8.97**	-----	-----
	L_2 - L_3	97.64	90.41	-42.59			0.90	1.00	81.37	-38.33	0.00	0.00	Vehicle	Vehicle	303.22	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**4.21**	**7.02**	-----	-----
	L_3 - L_4	66.79	114.41	-61.05			0.90	1.00	102.97	-54.95	0.00	0.00	Vehicle	Vehicle	309.91	-----	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**3.51**	**5.85**	-----	-----
	L_4 - L_5	-108.59	75.24	-91.01			0.90	1.00	67.71	-81.91	0.00	0.00	Vehicle	Vehicle	-----	-318.63	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**2.87**	**4.78**
	L_5 - L_6	-237.42	24.88	-100.10			0.90	1.00	22.39	-90.09	0.00	0.00	Vehicle	Vehicle	-----	-503.85	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	44.64	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**2.81**	**4.68**
	L_6 - L_7	-362.38	0.98	-140.27			0.90	1.00	0.88	-126.24	0.00	0.00	Vehicle	Vehicle	-----	-744.63	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	43.96	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**2.77**	**4.61**
	L_7 - L_8	-478.62	0.00	-191.11			0.90	1.00	0.00	-172.00	0.00	0.00	Vehicle	Vehicle	-----	-994.88	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	42.88	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**2.51**	**4.19**
	L_8 - L_9	-476.97	0.00	-195.30			0.90	1.00	0.00	-175.77	0.00	0.00	Vehicle	Vehicle	-----	-1000.89	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	42.75	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**2.47**	**4.11**
	L_9 - L_{10}	-301.47	0.00	-138.57			0.90	1.00	0.00	-124.71	0.00	0.00	Vehicle	Vehicle	-----	-662.11	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.10**	**5.16**
	L_{10} - L_{11}	-104.56	20.75	-79.84			0.90	1.00	18.68	-71.86	0.00	0.00	Vehicle	Vehicle	-----	-291.62	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**3.31**	**5.51**
	L_{11} - L_{12}	96.98	51.42	-61.50			0.90	1.00	46.27	-55.35	0.00	0.00	Vehicle	Vehicle	226.34	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	**6.44**	**10.74**	-----	-----
	L_{12} - L_{13}	268.60	101.37	-53.57			0.90	1.00	91.24	-48.21	0.00	0.00	Vehicle	Vehicle	546.86	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.64**	**7.74**	-----	-----
	L_{13} - L_{14}	405.49	150.31	-45.33			0.90	1.00	135.28	-40.80	0.00	0.00	Vehicle	Vehicle	820.25	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.00**	**6.67**	-----	-----
	L_{14} - L_{15}	502.59	164.38	-25.59			0.90	1.00	147.94	-22.95	0.00	0.00	Vehicle	Vehicle	973.92	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.35**	**7.25**	-----	-----
	L_{15} - L_{16}	469.06	136.38	-20.70			0.90	1.00	122.74	-18.63	0.00	0.00	Vehicle	Vehicle	875.72	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.40**	**9.01**	-----	-----
	L_{16} - L_{17}	365.26	80.97	-13.90			0.90	1.00	72.88	-12.51	0.00	0.00	Vehicle	Vehicle	632.73	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.01**	**11.68**	-----	-----
	L_{17} - L_{18}	248.52	53.46	-10.28			0.90	1.00	48.12	-9.25	0.00	0.00	Vehicle	Vehicle	427.33	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.92**	**13.19**	-----	-----
	L_{18} - L_{19}	112.87	32.95	-25.12			0.90	1.00	29.66	-22.61	0.00	0.00	Vehicle	Vehicle	210.98	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.89**	**13.14**	-----	-----
	L_{19} - L_{20}	-14.36	20.49	-70.95			0.90	1.00	18.44	-63.85	0.00	0.00	Vehicle	Vehicle	21.29	-157.01	1.95	19.80	17.8500	653.40	131.71	10.8073	5.6265	17.41	32.71	-550.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	**16.82**	**28.03**	**3.84**	**6.41**
Structure 2	L_0 - L_1	15.25	13.24	-11.23			0.90	1.00	11.92	-10.11	0.00	0.00	Vehicle	Vehicle	45.64	-----	1.88	24.95	23.0700	823.35	131.71	10.8828	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**31.12**	**51.87**	-----	-----
	L_1 - L_2	136.09	37.43	-9.49			0.90	1.00	33.69	-8.54	0.00	0.00	Vehicle	Vehicle	249.91	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**8.86**	**14.76**	-----	-----
	L_2 - L_3	262.77	79.26	-19.36			0.90	1.00	71.33	-17.42	0.00	0.00	Vehicle	Vehicle	496.15	-----	6.20	37.95	31.7500	1252.35	131.71	10.7370	6.1375	15.74	32.76	-1056.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	**5.89**	**9.82**	-----	-----
	L_3 - L_4	373.14	130.38	-32.72			0.90	1.00	117.34	-29.45	0.00	0.00	Vehicle	Vehicle	739.32	-----	9.45	51.08	41.6250	1685.48	131.71	10.7370	5.7282	16.87	32.73	-1420.90	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	**4.72**	**7.87**	-----	-----
	L_4 - L_5	456.57	178.18	-48.84			0.90	1.00	160.36	-43.96	0.00	0.00	Vehicle	Vehicle	940.98	-----	11.08	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.93	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.47**	**7.44**	-----	-----
	L_5 - L_6	489.37	215.32	-65.11			0.90	1.00	193.79	-58.60	0.00	0.00	Vehicle	Vehicle	1056.06	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.04**	**6.73**	-----	-----
	L_6 - L_7	479.01	242.57	-82.23			0.90	1.00	218.31	-74.00	0.00	0.00	Vehicle	Vehicle	1095.71	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	**3.68**	**6.13**	-----	-----
	L_7 - L_8	330.07	219.32	-110.67			0.90	1.00	197.39	-99.60	0.00	0.00	Vehicle	Vehicle	856.77	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	**3.07**	**5.12**	-----	-----
	L_8 - L_9	188.98	168.59	-119.56			0.90	1.00	151.73	-107.61	0.00	0.00	Vehicle	Vehicle	574.41	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	**3.60**	**6.00**	-----	-----
	L_9 - L_{10}	39.77	110.68	-126.66			0.90	1.00	99.61	-113.99	0.00	0.00	Vehicle	Vehicle	267.52	-195.28	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	**4.95**	**8.25**	**4.04**	**6.73**
	L_{10} - L_{11}	-127.39	45.14	-127.70			0.90	1.00	40.63	-114.93	0.00	0.00	Vehicle	Vehicle	-----	-414.62	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.76	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.73**	**4.55**
	L_{11} - L_{12}	-282.64	27.91	-153.54			0.90	1.00	25.12	-138.18	0.00	0.00	Vehicle	Vehicle	-----	-666.83	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.81**	**4.69**
	L_{12} - L_{13}	-426.73	5.27	-211.75			0.90	1.00	4.74	-190.58	0.00	0.00	Vehicle	Vehicle	-----	-967.67	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	44.73	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.67**	**4.45**
	L_{13} - L_{14}	-536.42	0.00	-254.54			0.90	1.00	0.00	-229.09	0.00	0.00	Vehicle	Vehicle	-----	-1193.71	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.91	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.56**	**4.27**
	L_{14} - L_{15}	-537.75	0.00	-256.59			0.90	1.00	0.00	-230.93	0.00	0.00	Vehicle	Vehicle	-----	-1199.43	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.81	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.54**	**4.23**
	L_{15} - L_{16}	-475.65	0.00	-222.68			0.90	1.00	0.00	-200.42	0.00	0.00	Vehicle	Vehicle	-----	-1052.57	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	42.89	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.39**	**3.99**
	L_{16} - L_{17}	-384.35	10.56	-179.16			0.90	1.00	9.50	-161.24	0.00	0.00	Vehicle	Vehicle	-----	-849.02	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	43.28	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.47**	**4.11**
	L_{17} - L_{18}	-281.86	20.22	-120.16			0.90	1.00	18.20	-108.15	0.00	0.00	Vehicle	Vehicle	-----	-600.73	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	42.85	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.47**	**4.12**
	L_{18} - L_{19}	-175.17	33.11	-84.00			0.90	1.00	29.80	-75.60	0.00	0.00	Vehicle	Vehicle	-----	-391.52	1.25	26.75	25.5000	882.75	131.71	10.6406	5.6472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.16**	**5.27**
	L_{19} - L_{20}	-76.53	53.87	-86.56			0.90	1.00	48.48	-77.90	0.00	0.00	Vehicle	Vehicle	-----	-268.28	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.83**	**6.38**
	L_{20} - L_{21}	4.38	90.61	-81.76			0.90	1.00	81.55	-73.58	0.00	0.00	Vehicle	Vehicle	182.39	-153.74	6.13	37.50	31.3700	1237.50	131.71	10.6250	6.1479	15.55	32.77	-1044.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.97**	**11.62**	**6.59**	**10.98**
	L_{21} - L_{22}	55.94	127.47	-82.85			0.90	1.00	114.72	-74.56	0.00	0.00	Vehicle	Vehicle	321.28	-88.82	6.75	37.50	30.7500	1237.50	131.71	10.6224	6.1479	15.55	32.77	-1044.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**4.69**	**7.81**	**6.92**	**11.53**
	L_{22} - L_{23}	62.99	126.76	-73.72			0.90	1.00	114.06	-66.35	0.00	0.00	Vehicle	Vehicle	329.07	-61.87	6.75	37.50	30.7500	1237.50	131.71	10.6224	6.1479	15.55	32.77	-1044.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**4.68**	**7.79**	**7.84**	**13.06**
	L_{23} - L_{24}	15.54	96.90	-71.36			0.90	1.00	87.21	-64.22	0.00	0.00	Vehicle	Vehicle	209.16	-118.95	6.13	37.50	31.3700	1237.50	131.71	10.6250	6.1479	15.55	32.77	-1044.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.44**	**10.74**	**7.65**	**12.75**
	L_{24} - L_{25}	-56.00	54.38	-61.45			0.90	1.00	48.94	-55.31	0.00	0.00	Vehicle	Vehicle	-----	-192.64	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**5.62**	**9.36**
	L_{25} - L_{26}	-136.37	42.19	-57.76			0.90	1.00	37.97	-51.98	0.00	0.00	Vehicle	Vehicle	-----	-289.91	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.05**	**5.41**
	L_{26} - L_{27}	-217.73	21.26	-119.93			0.90	1.00	19.13	-107.93	0.00	0.00	Vehicle	Vehicle	-----	-516.90	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.83**	**4.72**
	L_{27} - L_{28}	-296.25	9.81	-181.23			0.90	1.00	8.83	-163.10	0.00	0.00	Vehicle	Vehicle	-----	-738.52	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.76**	**4.61**
	L_{28} - L_{29}	-364.18	0.00	-240.34			0.90	1.00	0.00	-216.30	0.00	0.00	Vehicle	Vehicle	-----	-942.09	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.53**	**4.21**
	L_{29} - L_{30}	-418.23	0.00	-279.87			0.90	1.00	0.00	-251.88	0.00	0.00	Vehicle	Vehicle	-----	-1089.44	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.61**	**4.36**
	L_{30} - L_{31}	-350.38	31.49	-237.99			0.90	1.00	28.34	-214.19	0.00	0.00	Vehicle	Vehicle	-----	-919.56	11.98	70.85	58.8700	2338.05	131.71	11.1432	5.6285	17.82	32.70	-1969.16	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.26**	**5.44**
	L_{31} - L_{32}	-275.46	44.95	-199.60			0.90	1.00	40.46	-179.64	0.00	0.00	Vehicle	Vehicle	-----	-747.32	9.73	59.10	49.3700	1950.30	131.71	11.1432	5.8186	17.24	32.72	-1643.56	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.30**	**5.50**
	L_{32} - L_{33}	-179.08	58.61	-149.19			0.90	1.00

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Verticals	Structure 1																																													
	U$_2$ - L$_0$	-77.19	19.18	-56.85			0.90	1.00	17.26	-51.16	0.00	0.00	Vehicle	Vehicle	------	-211.20	1.63	15.26	13.6300	503.58	131.71	9.3438	1.9120	43.98	31.16	-404.18	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	**2.74**	**4.57**
	U$_3$ - L$_1$	-33.88	17.17	-47.99			0.90	1.00	15.45	-43.19	0.00	0.00	Vehicle	Vehicle	------	-137.62	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	**4.42**	**7.37**
	U$_3$ - L$_2$	10.43	16.07	-35.33			0.90	1.00	14.47	-31.80	0.00	0.00	Vehicle	Vehicle	44.90	-55.33	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	**17.31**	**28.85**	**6.84**	**11.40**
	U$_3$ - L$_3$	44.39	15.93	-22.47			0.90	1.00	14.34	-20.22	0.00	0.00	Vehicle	Vehicle	88.77	------	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	------	------	------	------	------	------	**16.04**	**26.74**	------	------
	U$_4$ - L$_4$	-16.67	1.05	-56.07			0.90	1.00	0.94	-50.46	0.00	0.00	Vehicle	Vehicle	------	-131.00	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	**3.96**	**6.60**		
	U$_4$ - L$_5$	-109.51	0.00	-72.68			0.90	1.00	0.00	-65.41	0.00	0.00	Vehicle	Vehicle	------	-284.08	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	------	------	16.16	------	------	33.25	45.00	Pass	5.37	12.00	Pass	------	------	------	------	**2.90**	**4.83**		
	U$_4$ - L$_6$	-143.60	0.00	-89.82			0.90	1.00	0.00	-80.84	0.00	0.00	Vehicle	Vehicle	------	-361.84	3.13	23.61	20.4794	779.11	131.71	9.9479	2.0237	44.24	31.14	-624.88	16.00	0.44	10.00	0.56	------	------	16.00	------	------	36.57	45.00	Pass	8.89	12.00	Pass	------	------	------	------	**2.50**	**4.17**		
	U$_5$ - L$_7$	-142.61	2.00	-82.96			0.90	1.00	1.80	-74.67	0.00	0.00	Vehicle	Vehicle	------	-347.17	2.88	21.86	18.9794	721.36	131.71	11.7292	1.9657	53.70	30.26	-562.19	16.25	0.44	10.00	0.50	------	------	16.25	------	------	37.14	45.00	Pass	10.00	12.00	Pass	------	------	------	------	**2.33**	**3.88**		
	U$_5$ - L$_8$	-391.97	0.00	-170.44			0.90	1.00	0.00	-153.40	0.00	0.00	Vehicle	Vehicle	------	-841.91	3.28	51.42	48.1423	1696.94	131.71	16.6563	4.0363	37.14	31.69	-1385.05	15.25	0.82	15.64	1.31	------	------	15.25	------	------	18.60	44.55	Pass	5.96	12.00	Pass	------	------	------	------	**2.63**	**4.39**		
	U$_6$ - L$_9$	-223.13	7.87	-87.69			0.90	1.00	7.08	-78.92	0.00	0.00	Vehicle	Vehicle	------	-461.06	3.50	30.81	27.3125	1016.81	131.71	12.1563	2.5246	43.34	31.21	-817.50	16.25	0.50	12.00	0.63	------	------	16.25	------	------	32.50	45.00	Pass	9.60	12.00	Pass	------	------	------	------	**3.08**	**5.14**		
	U$_6$ - L$_{10}$	-225.77	6.10	-93.94			0.90	1.00	5.49	-84.55	0.00	0.00	Vehicle	Vehicle	------	-476.69	2.76	34.69	31.9300	1144.77	131.71	10.7083	2.3304	41.36	31.37	-925.09	16.16	0.83	11.50	0.80	------	------	16.16	------	------	19.50	45.00	Pass	7.23	12.00	Pass	------	------	------	------	**3.45**	**5.75**		
	U$_7$ - L$_{11}$	-198.79	4.27	-86.81			0.90	1.00	3.85	-78.13	0.00	0.00	Vehicle	Vehicle	------	-427.70	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	**3.40**	**5.66**		
	U$_{12}$ - L$_{12}$	-154.77	1.63	-77.40			0.90	1.00	1.46	-69.66	0.00	0.00	Vehicle	Vehicle	------	-352.12	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	------	------	16.25	------	------	32.50	45.00	Pass	8.89	12.00	Pass	------	------	------	------	**3.25**	**5.42**		
	U$_{13}$ - L$_{13}$	-109.04	0.28	-65.86			0.90	1.00	0.25	-59.27	0.00	0.00	Vehicle	Vehicle	------	-270.18	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	**2.75**	**4.58**		
	U$_{14}$ - L$_{14}$	-12.30	0.78	-51.88			0.90	1.00	0.70	-46.69	0.00	0.00	Vehicle	Vehicle	------	-117.15	0.00	16.85	16.8486	556.00	131.71	9.2605	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	**4.27**	**7.12**		
	U$_{15}$ - L$_{15}$	-5.62	11.47	-34.03			0.90	1.00	10.32	-30.63	0.00	0.00	Vehicle	Vehicle	15.06	-73.66	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	**25.19**	**41.98**	**6.61**	**11.02**
	U$_{16}$ - L$_{16}$	-51.74	11.41	-54.24			0.90	1.00	10.27	-48.82	0.00	0.00	Vehicle	Vehicle	------	-173.03	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	**3.56**	**5.93**		
	U$_{17}$ - L$_{17}$	-127.31	11.85	-75.20			0.90	1.00	10.66	-67.68	0.00	0.00	Vehicle	Vehicle	------	-312.13	0.00	20.66	20.6644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	------	------	16.16	------	------	33.25	45.00	Pass	5.37	12.00	Pass	------	------	------	------	**2.52**	**4.20**		
	U$_{18}$ - L$_{18}$	-159.89	10.90	-83.74			0.90	1.00	9.81	-75.36	0.00	0.00	Vehicle	Vehicle	------	-371.14	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	------	------	16.16	------	------	32.06	45.00	Pass	7.23	12.00	Pass	------	------	------	------	**2.91**	**4.85**		
	U$_{19}$ - L$_{19}$	-191.17	9.21	-85.58			0.90	1.00	8.29	-77.02	0.00	0.00	Vehicle	Vehicle	------	-415.40	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	**3.31**	**5.52**		
	U$_{20}$ - L$_{20}$	-211.94	9.19	-98.28			0.90	1.00	8.27	-88.45	0.00	0.00	Vehicle	Vehicle	------	-467.17	0.00	29.13	29.1305	961.31	131.71	20.3229	2.8884	63.32	29.19	-722.67	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	**2.33**	**3.89**		
	Structure 2																																													
	U$_1$ - L$_0$	-206.53	16.29	-88.90			0.90	1.00	14.66	-80.01	0.00	0.00	Vehicle	Vehicle	------	-441.85	0.00	31.81	31.8100	1049.73	131.71	19.1510	2.8323	60.85	29.48	-797.03	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	**3.05**	**5.08**		
	U$_1$ - L$_1$	-188.72	16.71	-85.87			0.90	1.00	15.04	-77.28	0.00	0.00	Vehicle	Vehicle	------	-412.79	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	**3.76**	**6.26**		
	U$_1$ - L$_2$	-155.84	17.52	-79.86			0.90	1.00	15.76	-71.88	0.00	0.00	Vehicle	Vehicle	------	-358.33	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	**3.49**	**5.82**		
	U$_2$ - L$_3$	-134.53	19.75	-75.68			0.90	1.00	17.77	-68.11	0.00	0.00	Vehicle	Vehicle	------	-322.45	0.00	22.75	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	------	------	16.32	------	------	30.85	45.00	Pass	4.91	12.00	Pass	------	------	------	------	**2.80**	**4.66**		
	U$_3$ - L$_4$	-64.47	18.69	-57.70			0.90	1.00	16.82	-51.93	0.00	0.00	Vehicle	Vehicle	------	-196.31	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	**3.17**	**5.29**		
	U$_4$ - L$_5$	-19.94	20.21	-49.00			0.90	1.00	18.19	-44.10	0.00	0.00	Vehicle	Vehicle	------	-121.47	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	**4.36**	**7.27**		
	U$_4$ - L$_6$	40.07	16.68	-25.60			0.90	1.00	15.01	-23.04	0.00	0.00	Vehicle	Vehicle	84.61	------	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	------	-----	6.56	------	------	------	------	------	------	**15.50**	**25.83**	------	------
	U$_5$ - L$_7$	-26.03	0.24	-52.67			0.90	1.00	0.22	-47.41	0.00	0.00	Vehicle	Vehicle	------	-136.56	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	**3.98**	**6.63**		
	U$_5$ - L$_8$	-125.22	0.00	-55.19			0.90	1.00	0.00	-49.67	0.00	0.00	Vehicle	Vehicle	------	-270.41	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	------	------	15.75	------	------	36.00	45.00	Pass	8.89	12.00	Pass	------	------	------	------	**4.90**	**8.16**		
	U$_6$ - L$_9$	-174.50	0.00	-85.45			0.90	1.00	0.00	-76.90	0.00	0.00	Vehicle	Vehicle	------	-393.46	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	**4.03**	**6.72**		
	U$_6$ - L$_{10}$	-202.62	0.00	-96.19			0.90	1.00	0.00	-86.57	0.00	0.00	Vehicle	Vehicle	------	-450.97	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	------	------	16.48	------	------	20.31	45.00	Pass	6.06	12.00	Pass	------	------	------	------	**3.99**	**6.65**		
	U$_{11}$ - L$_{11}$	-229.48	2.75	-119.09			0.90	1.00	2.48	-107.18	0.00	0.00	Vehicle	Vehicle	------	-530.55	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	------	------	16.48	------	------	20.31	45.00	Pass	6.06	12.00	Pass	------	------	------	------	**3.00**	**4.99**		
	U$_{12}$ - L$_{12}$	-250.80	3.84	-123.47			0.90	1.00	3.46	-111.12	0.00	0.00	Vehicle	Vehicle	------	-566.80	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	------	------	16.48	------	------	18.26	45.00	Pass	6.06	12.00	Pass	------	------	------	------	**2.97**	**4.96**		
	U$_{13}$ - L$_{13}$	-223.27	16.47	-110.07			0.90	1.00	14.83	-99.07	0.00	0.00	Vehicle	Vehicle	------	-504.89	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	------	------	16.32	------	------	20.13	45.00	Pass	6.59	12.00	Pass	------	------	------	------	**2.83**	**4.71**		
	U$_{14}$ - L$_{14}$	-343.24	0.00	-174.71			0.90	1.00	0.00	-157.24	0.00	0.00	Vehicle	Vehicle	------	-786.90	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	------	------	15.38	------	------	18.31	45.00	Pass	5.68	12.00	Pass	------	------	------	------	**2.70**	**4.51**		
	U$_{15}$ - L$_{15}$	-123.12	20.61	-82.67			0.90	1.00	18.54	-74.41	0.00	0.00	Vehicle	Vehicle	------	-321.26	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	**4.57**	**7.62**		
	U$_{16}$ - L$_{16}$	-156.68	18.04	-106.71			0.90	1.00	16.23	-96.04	0.00	0.00	Vehicle	Vehicle	------	-411.76	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	**3.18**	**5.30**		
	U$_{17}$ - L$_{17}$	-147.89	16.05	-107.25			0.90	1.00	14.44	-96.52	0.00	0.00	Vehicle	Vehicle	------	-401.39	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	**2.96**	**4.93**		
	U$_{18}$ - L$_{18}$	-142.21	10.84	-112.01			0.90	1.00	9.75	-100.81	0.00	0.00	Vehicle	Vehicle	------	-403.29	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	**2.59**	**4.32**		
	U$_{19}$ - L$_{19}$	-111.47	9.95	-72.81			0.90	1.00	8.95	-65.53	0.00	0.00	Vehicle	Vehicle	------	-286.89	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	------	------	15.75	------	------	31.50	45.00	Pass	10.00	12.00	Pass	------	------	------	------	**3.66**	**6.10**		
	U$_{20}$ - L$_{20}$	-76.56	5.68	-60.11			0.90	1.00	5.11	-54.10	0.00	0.00	Vehicle	Vehicle	------	-216.74	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	**3.31**	**5.52**		
	U$_{21}$ - L$_{21}$	-44.33	4.38	-48.16			0.90	1.00	3.94	-43.34	0.00	0.00	Vehicle	Vehicle	------	-151.54	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	**4.10**	**6.83**		
	U$_{22}$ - L$_{22}$	-21.25	0.56	-52.38			0.90	1.00	0.50	-47.14	0.00	0.00	Vehicle	Vehicle	------	-129.76	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	**4.08**	**6.80**		
	U$_{23}$ - L$_{23}$	-39.04	3.27	-38.08			0.90	1.00	2.95	-34.27	0.00	0.00	Vehicle	Vehicle	------	-125.00	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	**3.31**	**5.52**		
	U$_{24}$ - L$_{24}$	-74.80	2.40	-60.42			0.90	1.00	2.16	-54.38	0.00	0.00	Vehicle	Vehicle	------	-215.06	0.00	16.85	16.8486	556.00	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	**3.31**	**5.52**		
	U$_{25}$ - L$_{25}$	-103.21	6.10	-76.61			0.90	1.00	5.49	-68.95	0.00	0.00	Vehicle	Vehicle	------	-283.57	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	------	------	15.75	------	------	31.50	45.00	Pass	10.00	12.00	Pass	------	------	------	------	**4.08**	**6.80**		
	U$_{26}$ - L$_{26}$	-120.15	6.22	-111.76			0.90	1.00	5.60	-100.59	0.00	0.00	Vehicle	Vehicle	------	-374.13	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	**2.73**	**4.54**		
	U$_{27}$ - L$_{27}$	-123.87	10.52	-110.79			0.90	1.00	9.47	-99.71	0.00	0.00	Vehicle	Vehicle	------	-377.06	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	**3.01**	**5.01**		
	U$_{28}$ - L$_{28}$	-135.49	11.07	-122.46			0.90	1.00	9.97	-110.22	0.00	0.00	Vehicle	Vehicle	------	-414.94	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	**2.89**	**4.81**		
	U$_{29}$ - L$_{29}$	-116.90	13.84	-99.01			0.90	1.00	12.46	-89.11	0.00	0.00	Vehicle	Vehicle	------	-345.03	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	**3.86**	**6.43**		
	U$_{30}$ - L$_{30}$	-261.40	0.00	-176.89			0.90	1.00	0.00	-159.20	0.00	0.00	Vehicle	Vehicle	------	-684.76	11.02	52.76	41.7400	1741.08	131.71	25.6094	4.0676	56.66	29.95	-1342.96	15.38	0.84	15.66	1.38	------	------	15.38	------	------	18.31	45.00	Pass	5.68	12.00	Pass	------	------	------	------	**2.91**	**4.85**		
	U$_{31}$ - L$_{31}$	-156.06	18.32	-94.05			0.90	1.00	16.49	-84.65	0.00	0.00	Vehicle	Vehicle	------	-386.28	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	------	------	16.32	------	------	20.13	45.00	Pass	6.59	12.00	Pass	------	------	------	------	**3.79**	**6.31**		
	U$_{32}$ - L$_{32}$	-185.16	11.90	-118.36			0.90	1.00	10.71	-106.52	0.00	0.00	Vehicle	Vehicle	------	-471.50	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	------	------	16.48	------	------	18.26	45.00	Pass	6.06	12.00	Pass	------	------	------	------	**3.47**	**5.79**		
	U$_{33}$ - L$_{33}$	-186.07	9

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Diagonals																																														
Structure 1	U_1 - L_1	87.39	74.42	-26.80			0.90	1.00	66.98	-24.12	0.00	0.00	Vehicle	Vehicle	258.73	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	**4.47**	**7.45**	-----	-----
	U_1 - L_2	23.29	57.70	-26.63			0.90	1.00	51.93	-23.96	0.00	0.00	Vehicle	Vehicle	142.80	-21.64	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**4.67**	**7.79**	**8.98**	**14.97**
	U_3 - L_3	-37.87	37.46	-25.68			0.90	1.00	33.72	-23.11	0.00	0.00	Vehicle	Vehicle	-----	-99.30	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**----**	**----**	**7.69**	**12.82**
	U_3 - L_4	-92.23	11.55	-25.15			0.90	1.00	10.40	-22.63	0.00	0.00	Vehicle	Vehicle	-----	-168.93	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**----**	**----**	**6.47**	**10.79**
	U_3 - L_4	143.29	88.18	0.00			0.90	1.00	79.36	0.00	0.00	0.00	Vehicle	Vehicle	358.23	-----	0.00	20.48	20.4800	675.84	131.71	11.6953	2.0102	52.36	30.39	-529.06	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**2.85**	**4.75**	-----	-----
	U_5 - L_5	177.89	97.52	0.00			0.90	1.00	87.77	0.00	0.00	0.00	Vehicle	Vehicle	421.42	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.23**	**5.39**	-----	-----
	U_6 - L_6	184.40	100.38	-1.77			0.90	1.00	90.34	-1.59	0.00	0.00	Vehicle	Vehicle	435.46	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.10**	**5.16**	-----	-----
	U_6 - L_7	179.98	91.89	-3.41			0.90	1.00	82.70	-3.07	0.00	0.00	Vehicle	Vehicle	413.16	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.41**	**5.69**	-----	-----
	U_8 - L_9	268.90	92.34	-9.47			0.90	1.00	83.11	-8.53	0.00	0.00	Vehicle	Vehicle	529.64	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.01**	**8.34**	-----	-----
	U_9 - L_{10}	278.76	101.27	-10.28			0.90	1.00	91.14	-9.26	0.00	0.00	Vehicle	Vehicle	559.87	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**4.50**	**7.50**	-----	-----
	U_{10} - L_{11}	284.98	109.41	-5.60			0.90	1.00	98.47	-5.04	0.00	0.00	Vehicle	Vehicle	583.81	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**3.81**	**6.35**	-----	-----
	U_{11} - L_{12}	250.55	101.45	-4.70			0.90	1.00	91.30	-4.23	0.00	0.00	Vehicle	Vehicle	523.53	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.46**	**5.77**	-----	-----
	U_{12} - L_{13}	189.62	92.57	-0.33			0.90	1.00	83.31	-0.30	0.00	0.00	Vehicle	Vehicle	427.01	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**3.18**	**5.30**	-----	-----
	U_{13} - L_{14}	123.30	69.91	0.00			0.90	1.00	62.92	0.00	0.00	0.00	Vehicle	Vehicle	296.61	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**2.90**	**4.84**	-----	-----
	U_{14} - L_{14}	-24.40	24.03	-16.74			0.90	1.00	21.63	-15.07	0.00	0.00	Vehicle	Vehicle	-----	-64.37	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**----**	**----**	**12.10**	**20.17**
	U_{15} - L_{15}	48.54	48.13	-15.57			0.90	1.00	43.32	-14.01	0.00	0.00	Vehicle	Vehicle	156.95	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.25**	**8.75**	-----	-----
	U_{16} - L_{16}	146.57	83.10	-16.25			0.90	1.00	74.79	-14.63	0.00	0.00	Vehicle	Vehicle	352.59	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**3.03**	**5.05**	-----	-----
	U_{17} - L_{17}	182.43	88.95	-13.96			0.90	1.00	80.05	-12.56	0.00	0.00	Vehicle	Vehicle	410.61	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.51**	**5.85**	-----	-----
	U_{18} - L_{18}	223.79	93.81	-11.70			0.90	1.00	84.43	-10.53	0.00	0.00	Vehicle	Vehicle	473.86	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.46**	**5.76**	-----	-----
	U_{20} - L_{19}	232.63	90.05	-9.73			0.90	1.00	81.05	-8.75	0.00	0.00	Vehicle	Vehicle	478.03	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.54**	**5.89**	-----	-----
Structure 2	U_1 - L_1	213.47	88.99	-17.36			0.90	1.00	80.09	-15.63	0.00	0.00	Vehicle	Vehicle	451.04	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.23**	**7.04**	-----	-----
	U_1 - L_2	200.39	91.11	-20.35			0.90	1.00	82.00	-18.32	0.00	0.00	Vehicle	Vehicle	438.18	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.22**	**7.04**	-----	-----
	U_3 - L_3	172.76	86.50	-22.57			0.90	1.00	77.85	-20.32	0.00	0.00	Vehicle	Vehicle	393.27	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.68**	**6.14**	-----	-----
	U_3 - L_4	147.11	83.07	-26.41			0.90	1.00	74.77	-23.77	0.00	0.00	Vehicle	Vehicle	353.24	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**3.45**	**5.75**	-----	-----
	U_5 - L_5	49.07	62.99	-25.97			0.90	1.00	56.67	-23.37	0.00	0.00	Vehicle	Vehicle	186.62	-----	0.00	16.85	16.8486	556.00	131.71	13.3954	1.9682	70.41	28.29	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.01**	**6.68**	-----	-----
	U_6 - L_6	2.97	50.87	-27.01			0.90	1.00	45.78	-24.31	0.00	0.00	Vehicle	Vehicle	103.05	-48.81	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**5.57**	**9.28**	**8.11**	**13.52**
	U_6 - L_7	-85.72	12.89	-28.28			0.90	1.00	11.60	-25.45	0.00	0.00	Vehicle	Vehicle	-----	-166.57	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	**----**	**----**	**6.45**	**10.75**
	U_7 - L_7	140.27	51.06	0.00			0.90	1.00	45.95	0.00	0.00	0.00	Vehicle	Vehicle	281.91	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**6.05**	**10.08**	-----	-----
	U_8 - L_8	204.17	86.51	0.00			0.90	1.00	77.86	0.00	0.00	0.00	Vehicle	Vehicle	434.12	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.90**	**6.50**	-----	-----
	U_{10} - L_9	234.82	103.61	0.00			0.90	1.00	93.25	0.00	0.00	0.00	Vehicle	Vehicle	507.31	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.49**	**5.82**	-----	-----
	U_{11} - L_{10}	263.04	120.13	-2.97			0.90	1.00	108.12	-2.68	0.00	0.00	Vehicle	Vehicle	576.20	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.23**	**5.38**	-----	-----
	U_{12} - L_{11}	273.97	127.45	-3.62			0.90	1.00	114.70	-3.26	0.00	0.00	Vehicle	Vehicle	604.68	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**2.98**	**4.97**	-----	-----
	U_{13} - L_{12}	254.88	117.68	-16.79			0.90	1.00	105.91	-15.11	0.00	0.00	Vehicle	Vehicle	560.81	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**2.96**	**4.94**	-----	-----
	U_{13} - L_{13}	217.66	103.47	-20.93			0.90	1.00	93.12	-18.83	0.00	0.00	Vehicle	Vehicle	484.73	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.61**	**6.01**	-----	-----
	U_{14} - L_{15}	110.03	66.39	-21.17			0.90	1.00	59.75	-19.05	0.00	0.00	Vehicle	Vehicle	272.50	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.43**	**9.05**	-----	-----
	U_{15} - L_{16}	132.26	87.23	-23.16			0.90	1.00	78.51	-20.84	0.00	0.00	Vehicle	Vehicle	342.04	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.96**	**6.60**	-----	-----
	U_{16} - L_{17}	172.87	112.69	-17.68			0.90	1.00	101.42	-15.91	0.00	0.00	Vehicle	Vehicle	444.47	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.18**	**5.30**	-----	-----
	U_{17} - L_{18}	160.16	114.64	-18.52			0.90	1.00	103.18	-16.66	0.00	0.00	Vehicle	Vehicle	431.76	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**2.85**	**4.75**	-----	-----
	U_{18} - L_{19}	152.33	85.37	-12.19			0.90	1.00	76.83	-10.97	0.00	0.00	Vehicle	Vehicle	364.49	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.89**	**6.49**	-----	-----
	U_{20} - L_{20}	120.67	78.59	-12.44			0.90	1.00	70.73	-11.19	0.00	0.00	Vehicle	Vehicle	310.11	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**4.09**	**6.82**	-----	-----
	U_{20} - L_{21}	76.10	64.52	-6.01			0.90	1.00	58.07	-5.41	0.00	0.00	Vehicle	Vehicle	224.75	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**3.63**	**6.05**	-----	-----
	U_{21} - L_{22}	31.50	42.91	-5.43			0.90	1.00	38.62	-4.88	0.00	0.00	Vehicle	Vehicle	124.63	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**6.15**	**10.26**	-----	-----
	U_{23} - L_{22}	24.27	28.65	-12.35			0.90	1.00	25.79	-11.12	0.00	0.00	Vehicle	Vehicle	87.42	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**9.39**	**15.65**	-----	-----
	U_{24} - L_{23}	72.21	53.28	-3.89			0.90	1.00	47.95	-3.50	0.00	0.00	Vehicle	Vehicle	197.78	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.35	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.45**	**7.41**	-----	-----
	U_{24} - L_{24}	112.05	82.48	-7.93			0.90	1.00	74.23	-7.14	0.00	0.00	Vehicle	Vehicle	306.51	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**3.97**	**6.62**	-----	-----
	U_{25} - L_{25}	127.76	92.93	-7.99			0.90	1.00	83.64	-7.19	0.00	0.00	Vehicle	Vehicle	347.31	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.75**	**6.25**	-----	-----
	U_{26} - L_{26}	132.58	119.91	-12.66			0.90	1.00	107.92	-11.39	0.00	0.00	Vehicle	Vehicle	406.19	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**2.88**	**4.80**	-----	-----
	U_{26} - L_{27}	137.86	120.19	-12.32			0.90	1.00	108.17	-11.09	0.00	0.00	Vehicle	Vehicle	413.59	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.17**	**5.29**	-----	-----
	U_{28} - L_{28}	122.74	107.70	-14.77			0.90	1.00	96.93	-13.29	0.00	0.00	Vehicle	Vehicle	369.57	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.27**	**5.45**	-----	-----
	U_{29} - L_{29}	102.60	84.66	-18.93			0.90	1.00	76.20	-17.03	0.00	0.00	Vehicle	Vehicle	298.47	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.32**	**7.19**	-----	-----
	U_{30} - L_{31}	139.84	77.77	-18.97			0.90	1.00	69.99	-17.07	0.00	0.00	Vehicle	Vehicle	333.43	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.47**	**9.11**	-----	-----
	U_{31} - L_{32}	166.63	101.52	-20.54			0.90	1.00	91.37	-18.48	0.00	0.00	Vehicle	Vehicle	414.58	-----	0.00	29.18	29.1800	962.94	131.71	17.8750	2.8156	57.14	29.89	-741.48	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.77**	**6.28**	-----	-----
	U_{32} - L_{33}	202.12	124.78	-11.07			0.90	1.00	112.30	-9.96	0.00	0.00	Vehicle	Vehicle	506.09	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.43**	**5.72**	-----	-----
	U_{33} - L_{34}	201.72	102.55	-11.13			0.90	1.00	92.29	-10.01	0.00	0.00	Vehicle	Vehicle	462.19	-----	0.00	33.27	33.2657	1097.77	131.71	14.5729	2.8573	45.90	31.00	-876.43	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.18**	**6.96**	-----	-----
	U_{35} - L_{35}	180.72	98.79	-1.53			0.90	1.00	88.91	-1.37	0.00	0.00	Vehicle	Vehicle	427.58	-----	0.00	30.63	30.6305	1010.81	131.71	13.7604	2.8427	43.57	31

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane

Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17

Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	Impact & Pedestrian Load MAX	Impact & Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capacity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Upper Chord	Structure 1	U_0 - U_1	-52.70	19.46	-51.71			0.75	1.00	14.60	-38.79	0.00	0.00	Vehicle	Vehicle	-----	-152.55	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	**7.93**	**13.22**
		U_1 - U_2	-61.66	35.44	-83.22			0.75	1.00	26.58	-62.41	0.00	0.00	Vehicle	Vehicle	-----	-215.38	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	**4.84**	**8.07**
		U_2 - U_3	-27.05	49.50	-106.75			0.75	1.00	37.13	-80.06	0.00	0.00	Vehicle	Vehicle	45.28	-208.64	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	**11.28**	**18.80**	**4.03**	**6.72**
		U_3 - U_4	32.90	62.93	-114.16			0.75	1.00	47.20	-85.62	0.00	0.00	Vehicle	Vehicle	145.04	-142.74	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	**8.11**	**13.52**	**4.19**	**6.99**
		U_4 - U_5	34.76	63.20	-113.57			0.75	1.00	47.40	-85.17	0.00	0.00	Vehicle	Vehicle	147.89	-139.36	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	**8.05**	**13.42**	**4.23**	**7.05**
		U_5 - U_6	124.19	75.25	-69.60			0.75	1.00	56.44	-52.20	0.00	0.00	Vehicle	Vehicle	283.73	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	**5.81**	**9.69**	-----	-----
		U_6 - U_7	223.31	87.84	-30.25			0.75	1.00	65.88	-22.69	0.00	0.00	Vehicle	Vehicle	433.04	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	**5.29**	**8.82**	-----	-----
		U_7 - U_8	331.92	130.04	0.00			0.75	1.00	97.53	0.00	0.00	0.00	Vehicle	Vehicle	642.80	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	**4.79**	**7.98**	-----	-----
		U_8 - U_9	267.71	121.14	0.00			0.75	1.00	90.86	0.00	0.00	0.00	Vehicle	Vehicle	544.87	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.44	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	**4.43**	**7.39**	-----	-----
		U_9 - U_{10}	89.12	63.32	-15.29			0.75	1.00	47.49	-11.46	0.00	0.00	Vehicle	Vehicle	218.76	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	-----	-----	42.67	-----	-----	10.67	-----	-----	**7.83**	**13.06**	-----	-----
		U_{10} - U_{11}	-76.89	54.82	-67.37			0.75	1.00	41.12	-50.53	0.00	0.00	Vehicle	Vehicle	-----	-209.43	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	**6.18**	**10.30**
		U_{11} - U_{12}	-230.86	46.18	-113.55			0.75	1.00	34.63	-85.16	0.00	0.00	Vehicle	Vehicle	-----	-484.63	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	**4.10**	**6.83**
		U_{12} - U_{13}	-342.15	38.45	-161.55			0.75	1.00	28.84	-121.16	0.00	0.00	Vehicle	Vehicle	-----	-707.31	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	**3.94**	**6.56**
		U_{13} - U_{14}	-421.98	31.81	-194.59			0.75	1.00	23.86	-145.95	0.00	0.00	Vehicle	Vehicle	-----	-864.79	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	**3.72**	**6.20**
		U_{14} - U_{15}	-422.87	31.67	-194.59			0.75	1.00	23.75	-145.94	0.00	0.00	Vehicle	Vehicle	-----	-865.95	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	**3.72**	**6.20**
		U_{15} - U_{16}	-440.39	24.53	-181.96			0.75	1.00	18.40	-136.47	0.00	0.00	Vehicle	Vehicle	-----	-868.19	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	**3.90**	**6.50**
		U_{16} - U_{17}	-422.93	18.44	-166.18			0.75	1.00	13.83	-124.64	0.00	0.00	Vehicle	Vehicle	-----	-819.86	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	**4.35**	**7.26**
		U_{17} - U_{18}	-341.45	12.27	-124.33			0.75	1.00	9.20	-93.25	0.00	0.00	Vehicle	Vehicle	-----	-645.92	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	45.00	Pass	32.00	50.00	Pass	8.00	12.00	Pass	-----	-----	**4.05**	**6.75**
		U_{18} - U_{19}	-247.63	7.38	-78.92			0.75	1.00	5.54	-59.19	0.00	0.00	Vehicle	Vehicle	-----	-450.16	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	**4.36**	**7.26**
		U_{19} - U_{20}	-132.06	3.63	-37.33			0.75	1.00	2.72	-28.00	0.00	0.00	Vehicle	Vehicle	-----	-232.34	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	**11.69**	**19.48**
	Structure 2	U_0 - U_1	-131.63	11.70	-50.79			0.75	1.00	8.78	-38.09	0.00	0.00	Vehicle	Vehicle	-----	-253.65	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	**8.12**	**13.54**
		U_1 - U_2	-247.12	25.19	-101.41			0.75	1.00	18.89	-76.06	0.00	0.00	Vehicle	Vehicle	-----	-486.04	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	**4.29**	**7.16**
		U_2 - U_3	-347.28	39.28	-145.29			0.75	1.00	29.46	-108.97	0.00	0.00	Vehicle	Vehicle	-----	-687.55	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.50	4.00	0.50	16.00	95.35	272.00	30.22	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	**4.02**	**6.70**
		U_3 - U_4	-437.20	55.44	-185.50			0.75	1.00	41.58	-139.12	0.00	0.00	Vehicle	Vehicle	-----	-869.79	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	**3.90**	**6.50**
		U_4 - U_5	-468.83	68.33	-207.70			0.75	1.00	51.25	-155.77	0.00	0.00	Vehicle	Vehicle	-----	-946.99	15.14	69.44	54.2975	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	**3.92**	**6.54**
		U_5 - U_6	-471.14	81.18	-217.81			0.75	1.00	60.88	-163.36	0.00	0.00	Vehicle	Vehicle	-----	-966.43	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	**3.73**	**6.22**
		U_6 - U_7	-414.50	90.80	-216.37			0.75	1.00	68.10	-162.28	0.00	0.00	Vehicle	Vehicle	-----	-890.45	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	**3.43**	**5.71**
		U_7 - U_8	-413.54	90.93	-216.13			0.75	1.00	68.20	-162.09	0.00	0.00	Vehicle	Vehicle	-----	-888.81	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	**3.43**	**5.72**
		U_8 - U_9	-322.06	99.65	-195.63			0.75	1.00	74.74	-146.72	0.00	0.00	Vehicle	Vehicle	-----	-736.57	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	**3.29**	**5.48**
		U_9 - U_{10}	-182.16	104.63	-164.16			0.75	1.00	78.47	-123.12	0.00	0.00	Vehicle	Vehicle	-----	-503.57	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	**3.43**	**5.72**
		U_{10} - U_{11}	-32.61	110.20	-113.13			0.75	1.00	82.65	-84.84	0.00	0.00	Vehicle	Vehicle	136.67	-226.23	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	**6.85**	**11.41**	**5.21**	**8.68**
		U_{11} - U_{12}	133.57	112.84	-61.23			0.75	1.00	84.63	-45.92	0.00	0.00	Vehicle	Vehicle	357.00	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	**5.51**	**9.18**	-----	-----
		U_{12} - U_{13}	289.98	120.67	-11.52			0.75	1.00	90.50	-8.64	0.00	0.00	Vehicle	Vehicle	573.06	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	**5.63**	**9.38**	-----	-----
		U_{13} - U_{14}	434.77	166.76	0.00			0.75	1.00	125.07	0.00	0.00	0.00	Vehicle	Vehicle	836.19	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	**5.42**	**9.03**	-----	-----
		U_{14} - U_{15}	474.48	170.45	0.00			0.75	1.00	127.84	0.00	0.00	0.00	Vehicle	Vehicle	893.80	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	**5.12**	**8.53**	-----	-----
		U_{15} - U_{16}	383.31	128.75	0.00			0.75	1.00	96.56	0.00	0.00	0.00	Vehicle	Vehicle	707.52	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	**5.52**	**9.21**	-----	-----
		U_{16} - U_{17}	279.61	78.09	-13.93			0.75	1.00	58.57	-10.45	0.00	0.00	Vehicle	Vehicle	490.39	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	**7.83**	**13.05**	-----	-----
		U_{17} - U_{18}	172.67	81.14	-43.33			0.75	1.00	60.86	-32.50	0.00	0.00	Vehicle	Vehicle	356.32	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	**5.85**	**9.75**	-----	-----
		U_{18} - U_{19}	74.40	82.58	-80.30			0.75	1.00	61.94	-60.22	0.00	0.00	Vehicle	Vehicle	230.92	-----	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	**6.70**	**11.17**	-----	-----
		U_{19} - U_{20}	-9.98	84.52	-111.09			0.75	1.00	63.39	-83.32	0.00	0.00	Vehicle	Vehicle	124.38	-193.50	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	**7.86**	**13.10**	**4.92**	**8.20**
	Structure 3	U_0 - U_{21}	-62.02	85.19	-139.37			0.75	1.00	63.90	-104.53	0.00	0.00	Vehicle	Vehicle	57.82	-307.10	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	**9.89**	**16.49**	**4.45**	**7.41**
		U_{21} - U_{22}	-88.69	86.27	-159.69			0.75	1.00	64.70	-119.77	0.00	0.00	Vehicle	Vehicle	-----	-374.79	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	**3.75**	**6.25**
		U_{22} - U_{23}	-88.87	86.27	-159.53			0.75	1.00	64.70	-119.65	0.00	0.00	Vehicle	Vehicle	-----	-374.77	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	**3.75**	**6.25**
		U_{23} - U_{24}	-76.60	85.01	-142.74			0.75	1.00	63.76	-107.05	0.00	0.00	Vehicle	Vehicle	-----	-331.52	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	**4.26**	**7.10**
		U_{24} - U_{25}	-37.55	83.83	-123.88			0.75	1.00	62.88	-92.91	0.00	0.00	Vehicle	Vehicle	87.41	-250.13	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	**8.19**	**13.64**	**4.23**	**7.05**
		U_{25} - U_{26}	37.36	80.86	-85.00			0.75	1.00	60.65	-63.75	0.00	0.00	Vehicle	Vehicle	179.96	-89.56	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	**7.21**	**12.02**	**6.44**	**10.74**
		U_{26} - U_{27}	128.18	78.35	-39.64			0.75	1.00	58.76	-29.73	0.00	0.00	Vehicle	Vehicle	293.95	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	**6.52**	**10.86**	-----	-----
		U_{27} - U_{28}	233.91	80.13	-7.73			0.75	1.00	60.10	-5.80	0.00	0.00	Vehicle	Vehicle	434.29	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	**8.09**	**13.48**	-----	-----
		U_{28} - U_{29}	337.95	127.53	0.00			0.75	1.00	95.65	0.00	0.00	0.00	Vehicle	Vehicle	646.56	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	**5.86**	**9.77**	-----	-----
		U_{29} - U_{30}	437.48	171.41	0.00			0.75	1.00	128.56	0.00	0.00	0.00	Vehicle	Vehicle	847.27	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	**5.26**	**8.77**	-----	-----
		U_{30} - U_{31}	420.86	166.60	0.00			0.75	1.00	124.95	0.00	0.00	0.00	Vehicle	Vehicle	817.84	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	**5.49**	**9.15**	-----	-----
		U_{31} - U_{32}	300.88	121.73	-14.92			0.75	1.00	91.30	-11.19	0.00	0.00	Vehicle	Vehicle	588.95	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	**5.51**	**9.18**	-----	-----
		U_{32} - $U_

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	Impact & Pedestrian Load MAX	Impact & Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capacity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Lower Chord	Structure 1	L_0 - L_1	8.48	3.54	-7.40			0.75	1.00	2.66	-5.55	0.00	0.00	Vehicle	Vehicle	16.78	-----	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**111.64**	**186.06**	-----	-----
		L_1 - L_2	50.83	50.28	-21.03			0.75	1.00	37.71	-15.77	0.00	0.00	Vehicle	Vehicle	147.80	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.19**	**11.98**	-----	-----
		L_2 - L_3	61.27	79.44	-36.19			0.75	1.00	59.58	-27.14	0.00	0.00	Vehicle	Vehicle	208.74	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**6.12**	**10.19**	-----	-----
		L_3 - L_4	25.72	95.42	-50.17			0.75	1.00	71.56	-37.63	0.00	0.00	Vehicle	Vehicle	188.49	-48.10	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	**5.39**	**8.98**	**9.39**	**15.64**
		L_4 - L_5	-118.55	60.43	-73.93			0.75	1.00	45.33	-55.44	0.00	0.00	Vehicle	Vehicle	-----	-274.25	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**4.13**	**6.89**
		L_5 - L_6	-217.97	21.18	-86.73			0.75	1.00	15.89	-65.05	0.00	0.00	Vehicle	Vehicle	-----	-424.29	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**4.07**	**6.79**
		L_6 - L_7	-320.57	0.00	-131.59			0.75	1.00	0.00	-98.69	0.00	0.00	Vehicle	Vehicle	-----	-630.57	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.80**	**6.33**
		L_7 - L_8	-417.42	0.00	-181.06			0.75	1.00	0.00	-135.80	0.00	0.00	Vehicle	Vehicle	-----	-836.86	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.46**	**5.76**
		L_8 - L_9	-411.08	0.00	-181.21			0.75	1.00	0.00	-135.91	0.00	0.00	Vehicle	Vehicle	-----	-828.87	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.48**	**5.80**
		L_9 - L_{10}	-247.97	0.00	-122.02			0.75	1.00	0.00	-91.51	0.00	0.00	Vehicle	Vehicle	-----	-520.63	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**4.57**	**7.62**
		L_{10} - L_{11}	-65.37	14.54	-67.64			0.75	1.00	10.91	-50.73	0.00	0.00	Vehicle	Vehicle	-----	-194.90	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**5.14**	**8.57**
		L_{11} - L_{12}	101.81	66.90	-50.21			0.75	1.00	50.17	-37.66	0.00	0.00	Vehicle	Vehicle	241.06	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.89**	**9.81**	-----	-----
		L_{12} - L_{13}	264.06	110.25	-43.02			0.75	1.00	82.68	-32.26	0.00	0.00	Vehicle	Vehicle	522.43	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.16**	**8.60**	-----	-----
		L_{13} - L_{14}	373.80	143.08	-35.97			0.75	1.00	107.31	-26.97	0.00	0.00	Vehicle	Vehicle	718.45	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.22**	**8.70**	-----	-----
		L_{14} - L_{15}	476.54	160.58	-22.92			0.75	1.00	120.44	-17.19	0.00	0.00	Vehicle	Vehicle	880.45	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.47**	**9.12**	-----	-----
		L_{15} - L_{16}	460.23	145.08	-16.82			0.75	1.00	108.81	-12.61	0.00	0.00	Vehicle	Vehicle	834.05	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**6.14**	**10.24**	-----	-----
		L_{16} - L_{17}	381.61	104.47	-11.01			0.75	1.00	78.35	-8.26	0.00	0.00	Vehicle	Vehicle	665.85	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	**6.39**	**10.66**	-----	-----
		L_{17} - L_{18}	289.18	59.09	-6.53			0.75	1.00	44.32	-4.89	0.00	0.00	Vehicle	Vehicle	471.96	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	**8.05**	**13.41**	-----	-----
		L_{18} - L_{19}	176.31	31.65	-5.32			0.75	1.00	23.73	-3.99	0.00	0.00	Vehicle	Vehicle	280.63	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**8.25**	**13.75**	-----	-----
		L_{19} - L_{20}	69.72	8.03	-18.13			0.75	1.00	6.02	-13.60	0.00	0.00	Vehicle	Vehicle	103.69	-----	1.95	19.80	17.8500	653.40	131.71	10.8073	5.6265	17.41	32.71	-550.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**43.13**	**71.88**	-----	-----
		L_0 - L_1	24.42	1.48	-7.42			0.75	1.00	1.11	-5.56	0.00	0.00	Vehicle	Vehicle	34.15	-----	1.88	20.08	18.2000	662.64	131.71	10.8828	6.9064	14.18	32.81	-559.98	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**262.68**	**437.80**	-----	-----
		L_1 - L_2	138.42	50.26	-13.37			0.75	1.00	37.70	-10.03	0.00	0.00	Vehicle	Vehicle	261.62	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**7.88**	**13.13**	-----	-----
		L_2 - L_3	252.76	103.26	-27.56			0.75	1.00	77.44	-20.67	0.00	0.00	Vehicle	Vehicle	496.38	-----	6.20	38.45	32.2500	1268.85	131.71	10.7370	6.1675	15.67	32.77	-1070.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	**5.60**	**9.34**	-----	-----
		L_3 - L_4	352.26	147.10	-41.67			0.75	1.00	110.33	-31.25	0.00	0.00	Vehicle	Vehicle	696.98	-----	9.45	51.58	42.1250	1701.98	131.71	10.7370	5.7558	16.79	32.73	-1434.93	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	**5.20**	**8.67**	-----	-----
		L_4 - L_5	447.15	184.99	-57.92			0.75	1.00	138.74	-43.44	0.00	0.00	Vehicle	Vehicle	881.91	-----	11.00	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.90	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.20**	**8.67**	-----	-----
		L_5 - L_6	477.91	206.93	-70.79			0.75	1.00	155.19	-53.09	0.00	0.00	Vehicle	Vehicle	957.54	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.08**	**8.47**	-----	-----
		L_6 - L_7	482.67	216.62	-83.62			0.75	1.00	162.46	-62.72	0.00	0.00	Vehicle	Vehicle	979.47	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	**4.93**	**8.22**	-----	-----
		L_7 - L_8	336.57	180.74	-101.75			0.75	1.00	135.56	-76.31	0.00	0.00	Vehicle	Vehicle	731.25	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	**4.45**	**7.41**	-----	-----
		L_8 - L_9	196.00	151.53	-106.15			0.75	1.00	113.65	-79.62	0.00	0.00	Vehicle	Vehicle	501.04	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	**4.77**	**7.95**	-----	-----
		L_9 - L_{10}	45.53	100.17	-110.82			0.75	1.00	75.13	-83.12	0.00	0.00	Vehicle	Vehicle	221.96	-120.89	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	**6.52**	**10.87**	**5.58**	**9.30**
		L_{10} - L_{11}	-126.32	51.32	-113.68			0.75	1.00	38.49	-85.26	0.00	0.00	Vehicle	Vehicle	-----	-348.95	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.78	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.69**	**6.15**
		L_{11} - L_{12}	-284.95	6.42	-133.00			0.75	1.00	4.82	-99.75	0.00	0.00	Vehicle	Vehicle	-----	-586.56	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.88**	**6.47**
		L_{12} - L_{13}	-433.89	0.00	-178.68			0.75	1.00	0.00	-134.01	0.00	0.00	Vehicle	Vehicle	-----	-854.42	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.77**	**6.28**
		L_{13} - L_{14}	-552.76	0.00	-218.38			0.75	1.00	0.00	-163.78	0.00	0.00	Vehicle	Vehicle	-----	-1073.45	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.53**	**5.88**
		L_{14} - L_{15}	-573.53	0.00	-221.33			0.75	1.00	0.00	-166.00	0.00	0.00	Vehicle	Vehicle	-----	-1105.24	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.40**	**5.67**
		L_{15} - L_{16}	-493.00	0.00	-184.63			0.75	1.00	0.00	-138.47	0.00	0.00	Vehicle	Vehicle	-----	-940.91	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.39**	**5.65**
		L_{16} - L_{17}	-395.34	0.00	-144.23			0.75	1.00	0.00	-108.17	0.00	0.00	Vehicle	Vehicle	-----	-748.31	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.62**	**6.03**
		L_{17} - L_{18}	-288.08	12.10	-89.58			0.75	1.00	9.08	-67.19	0.00	0.00	Vehicle	Vehicle	-----	-520.07	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.92**	**6.54**
		L_{18} - L_{19}	-175.85	43.89	-82.92			0.75	1.00	32.92	-62.19	0.00	0.00	Vehicle	Vehicle	-----	-363.34	1.25	26.75	25.5000	882.75	131.71	10.6406	5.6472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.84**	**6.40**
		L_{19} - L_{20}	-78.08	80.69	-85.01			0.75	1.00	60.52	-63.76	0.00	0.00	Vehicle	Vehicle	-----	-239.64	1.88	26.75	24.8700	882.75	131.71	10.6380	5.6472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.66**	**7.77**
	Structure 2	L_{20} - L_{21}	7.59	113.31	-88.86			0.75	1.00	84.99	-66.65	0.00	0.00	Vehicle	Vehicle	194.01	-134.53	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.76**	**11.26**	**7.40**	**12.33**
		L_{21} - L_{22}	59.10	131.35	-89.12			0.75	1.00	98.51	-66.84	0.00	0.00	Vehicle	Vehicle	290.27	-67.99	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**5.52**	**9.19**	**7.84**	**13.07**
		L_{22} - L_{23}	72.03	128.47	-88.06			0.75	1.00	96.35	-66.04	0.00	0.00	Vehicle	Vehicle	302.40	-----	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.56**	**9.26**	-----	-----
		L_{23} - L_{24}	33.57	109.87	-86.30			0.75	1.00	82.40	-64.73	0.00	0.00	Vehicle	Vehicle	222.17	-96.60	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.78**	**11.30**	**7.86**	**13.10**
		L_{24} - L_{25}	-45.06	71.52	-84.01			0.75	1.00	53.64	-63.01	0.00	0.00	Vehicle	Vehicle	57.65	-195.09	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**8.10**	**13.50**	**5.03**	**8.39**
		L_{25} - L_{26}	-134.95	26.49	-82.56			0.75	1.00	19.87	-61.92	0.00	0.00	Vehicle	Vehicle	-----	-309.59	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.25**	**7.08**
		L_{26} - L_{27}	-245.92	6.67	-82.04			0.75	1.00	5.00	-61.53	0.00	0.00	Vehicle	Vehicle	-----	-453.02	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**4.70**	**7.83**
		L_{27} - L_{28}	-351.86	0.00	-139.86			0.75	1.00	0.00	-104.89	0.00	0.00	Vehicle	Vehicle	-----	-684.69	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.98**	**6.63**
		L_{28} - L_{29}	-458.41	0.00	-180.81			0.75	1.00	0.00	-135.61	0.00	0.00	Vehicle	Vehicle	-----	-889.75	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.61**	**6.02**
		L_{29} - L_{30}	-542.36	0.00	-216.97			0.75	1.00	0.00	-162.73	0.00	0.00	Vehicle	Vehicle	-----	-1057.65	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.59**	**5.98**
		L_{30} - L_{31}	-514.21	0.00	-224.26			0.75	1.00	0.00	-168.20	0.00	0.00	Vehicle	Vehicle	-----	-1032.91	11.98	70.85	58.8700	2338.05	131.71	11.1432	5.6285	17.82	32.70	-1969.16	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.57**	**5.95**
		L_{31} - L_{32}	-411.27	0.00	-182.41			0.75	1.00	0.00	-136.81	0.00	0.00	Vehicle	Vehicle	-----	-831.06	9.73	59.60	49.8700	1966.80	131.71	11.1432	5.8413	17.17	32.72	-1657.58	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.79**	**6.31**
		L_{32} - L_{33}	-287.44	10.78	-134.13			0.75	1.00

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Artic
(Case I considered in Max. Tension/Compression Load)

| | | | Member Forces from STAAD | | |

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane — Fy = 33.0 ksi — Vehicle Load Factors — DL Factor: 1.30 — Pedestrian Load Factors — DL Factor: 1.30

Condition: As-Inspected — Fu = 60.0 ksi — LL Factor: 2.17 — LL Factor: 1.63

E = 29000.0 ksi

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL_{max} (kips)	LL_{min} (kips)	Pedestrian $Load_{MAX}$	Pedestrian $Load_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL_{MAX}	Lane Reduction and Impact LL_{MIN}	Impact & Pedestrian $Load_{MAX}$	Impact & Pedestrian $Load_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A_{deduct} (in^2) **	A_{gross} (in^2)	A_{net} (in^2)	$C_{Nominal}$ (kips)	Member Capicity in Compression: C_c	L (feet)	r_{min} (in)	KL/r_{min} ***	F_{crit} **** (ksi)	$C_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Diagonals	Structure 1	U_0 - L_1	53.29	66.05	-23.24			0.75	1.00	49.54	-17.43	0.00	0.00	Vehicle	Vehicle	176.61	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	**6.46**	**10.76**	-----	-----
		U_1 - L_2	10.80	50.19	-21.93			0.75	1.00	37.64	-16.45	0.00	0.00	Vehicle	Vehicle	95.59	-21.60	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**6.65**	**11.08**	**12.63**	**21.04**
		U_2 - L_3	-44.05	41.02	-21.25			0.75	1.00	30.77	-15.94	0.00	0.00	Vehicle	Vehicle	-----	-91.81	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**10.92**	**18.20**
		U_3 - L_4	-76.77	16.93	-26.45			0.75	1.00	12.70	-19.84	0.00	0.00	Vehicle	Vehicle	-----	-142.79	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**7.85**	**13.09**
		U_4 - L_5	118.48	98.97	0.00			0.75	1.00	74.22	0.00	0.00	0.00	Vehicle	Vehicle	314.85	-----	0.00	20.66	20.6644	681.93	131.71	11.6953	2.0011	52.60	30.37	-533.41	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**3.28**	**5.47**	-----	-----
		U_5 - L_6	137.62	107.75	0.00			0.75	1.00	80.81	0.00	0.00	0.00	Vehicle	Vehicle	353.99	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.81**	**6.35**	-----	-----
		U_6 - L_7	157.39	106.30	0.00			0.75	1.00	79.73	0.00	0.00	0.00	Vehicle	Vehicle	377.34	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.71**	**6.19**	-----	-----
		U_7 - L_8	149.33	96.96	0.00			0.75	1.00	72.72	0.00	0.00	0.00	Vehicle	Vehicle	351.68	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.14**	**6.89**	-----	-----
		U_8 - L_9	249.21	95.99	-1.85			0.75	1.00	71.99	-1.39	0.00	0.00	Vehicle	Vehicle	479.95	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.94**	**9.90**	-----	-----
		U_9 - L_{10}	260.39	100.20	0.00			0.75	1.00	75.15	0.00	0.00	0.00	Vehicle	Vehicle	501.33	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.60**	**9.34**	-----	-----
		U_{10} - L_{11}	236.43	105.25	0.00			0.75	1.00	78.94	0.00	0.00	0.00	Vehicle	Vehicle	478.39	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**5.12**	**8.54**	-----	-----
		U_{11} - L_{12}	212.05	94.24	0.00			0.75	1.00	70.68	0.00	0.00	0.00	Vehicle	Vehicle	428.80	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.80**	**8.00**	-----	-----
		U_{12} - L_{13}	151.78	91.99	0.00			0.75	1.00	68.99	0.00	0.00	0.00	Vehicle	Vehicle	346.80	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**4.17**	**6.95**	-----	-----
		U_{13} - L_{14}	108.73	68.32	0.00			0.75	1.00	51.24	0.00	0.00	0.00	Vehicle	Vehicle	252.36	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**3.74**	**6.23**	-----	-----
		U_{14} - L_{15}	-24.56	33.36	-11.96			0.75	1.00	25.02	-8.97	0.00	0.00	Vehicle	Vehicle	22.28	-51.37	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**10.84**	**18.07**	**20.32**	**33.86**
		U_{15} - L_{15}	23.90	54.54	-10.25			0.75	1.00	40.90	-7.69	0.00	0.00	Vehicle	Vehicle	119.70	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.92**	**9.87**	-----	-----
		U_{17} - L_{16}	120.04	73.33	-10.41			0.75	1.00	55.00	-7.81	0.00	0.00	Vehicle	Vehicle	275.21	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**4.41**	**7.36**	-----	-----
		U_{18} - L_{17}	144.84	81.04	-8.72			0.75	1.00	60.78	-6.54	0.00	0.00	Vehicle	Vehicle	319.99	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.99**	**8.32**	-----	-----
		U_{19} - L_{18}	193.27	77.05	-7.20			0.75	1.00	57.79	-5.40	0.00	0.00	Vehicle	Vehicle	376.46	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.37**	**8.95**	-----	-----
		U_{20} - L_{19}	193.75	77.31	-5.85			0.75	1.00	57.98	-4.39	0.00	0.00	Vehicle	Vehicle	377.50	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.34**	**8.91**	-----	-----
		U_0 - L_1	202.60	91.66	-21.43			0.75	1.00	68.74	-16.07	0.00	0.00	Vehicle	Vehicle	412.32	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.02**	**8.36**	-----	-----
		U_1 - L_2	190.84	90.56	-24.28			0.75	1.00	67.92	-18.21	0.00	0.00	Vehicle	Vehicle	395.25	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.18**	**8.64**	-----	-----
		U_2 - L_3	155.90	75.11	-23.90			0.75	1.00	56.33	-17.92	0.00	0.00	Vehicle	Vehicle	324.72	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.27**	**8.78**	-----	-----
		U_3 - L_4	134.06	67.84	-26.34			0.75	1.00	50.88	-19.75	0.00	0.00	Vehicle	Vehicle	284.52	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**5.22**	**8.71**	-----	-----
		U_4 - L_5	46.01	50.07	-20.79			0.75	1.00	37.55	-15.59	0.00	0.00	Vehicle	Vehicle	141.17	-----	0.00	16.85	16.8486	556.00	131.71	15.3958	1.9682	70.40	28.29	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**6.10**	**10.16**	-----	-----
		U_5 - L_6	3.43	38.21	-21.44			0.75	1.00	28.66	-16.08	0.00	0.00	Vehicle	Vehicle	66.55	-30.38	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**8.88**	**14.80**	**12.28**	**20.47**
		U_6 - L_7	-84.31	18.60	-31.32			0.75	1.00	13.95	-23.49	0.00	0.00	Vehicle	Vehicle	-----	-160.50	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	**7.02**	**11.71**
		U_7 - L_8	137.33	64.83	0.00			0.75	1.00	48.62	0.00	0.00	0.00	Vehicle	Vehicle	283.87	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**5.75**	**9.58**	-----	-----
		U_8 - L_9	210.92	77.90	0.00			0.75	1.00	58.43	0.00	0.00	0.00	Vehicle	Vehicle	400.78	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.13**	**8.55**	-----	-----
		U_{10} - L_9	236.39	97.69	0.00			0.75	1.00	73.27	0.00	0.00	0.00	Vehicle	Vehicle	466.06	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.43**	**7.39**	-----	-----
		U_{11} - L_{10}	274.65	98.38	0.00			0.75	1.00	73.79	0.00	0.00	0.00	Vehicle	Vehicle	516.91	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.63**	**7.72**	-----	-----
		U_{12} - L_{11}	281.09	130.62	0.00			0.75	1.00	97.96	0.00	0.00	0.00	Vehicle	Vehicle	577.67	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.45**	**5.75**	-----	-----
		U_{13} - L_{12}	278.14	108.93	-6.79			0.75	1.00	81.69	-5.09	0.00	0.00	Vehicle	Vehicle	538.59	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.67**	**6.11**	-----	-----
		U_{14} - L_{13}	235.47	94.78	-11.41			0.75	1.00	71.09	-8.56	0.00	0.00	Vehicle	Vehicle	460.13	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.58**	**7.63**	-----	-----
		U_{14} - L_{15}	143.01	73.10	-23.95			0.75	1.00	54.83	-17.96	0.00	0.00	Vehicle	Vehicle	304.71	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.56**	**9.26**	-----	-----
		U_{16} - L_{16}	171.90	91.18	-22.47			0.75	1.00	68.38	-16.85	0.00	0.00	Vehicle	Vehicle	371.63	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.20**	**7.00**	-----	-----
		U_{16} - L_{17}	181.04	113.94	-12.55			0.75	1.00	85.45	-9.41	0.00	0.00	Vehicle	Vehicle	420.49	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.72**	**6.19**	-----	-----
		U_{17} - L_{18}	171.16	112.18	-11.87			0.75	1.00	84.13	-8.90	0.00	0.00	Vehicle	Vehicle	404.79	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.42**	**5.70**	-----	-----
		U_{18} - L_{19}	150.64	71.24	-5.03			0.75	1.00	53.43	-3.77	0.00	0.00	Vehicle	Vehicle	311.61	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.61**	**9.36**	-----	-----
	Structure 2	U_{19} - L_{20}	125.86	62.22	-4.88			0.75	1.00	46.67	-3.66	0.00	0.00	Vehicle	Vehicle	264.73	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**6.14**	**10.23**	-----	-----
		U_{20} - L_{21}	76.04	60.29	-1.30			0.75	1.00	45.22	-0.97	0.00	0.00	Vehicle	Vehicle	196.83	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.67**	**7.78**	-----	-----
		U_{21} - L_{22}	38.33	39.39	-15.76			0.75	1.00	29.54	-11.82	0.00	0.00	Vehicle	Vehicle	113.84	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**7.91**	**13.18**	-----	-----
		U_{23} - L_{22}	18.05	41.57	-10.00			0.75	1.00	31.17	-7.50	0.00	0.00	Vehicle	Vehicle	91.01	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**7.88**	**13.14**	-----	-----
		U_{24} - L_{23}	58.57	60.69	-2.89			0.75	1.00	45.52	-2.17	0.00	0.00	Vehicle	Vehicle	174.77	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.87**	**8.11**	-----	-----
		U_{25} - L_{24}	114.98	70.99	-5.19			0.75	1.00	53.24	-3.89	0.00	0.00	Vehicle	Vehicle	264.83	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**5.50**	**9.17**	-----	-----
		U_{26} - L_{25}	143.00	82.11	-4.40			0.75	1.00	61.58	-3.30	0.00	0.00	Vehicle	Vehicle	319.32	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.95**	**8.24**	-----	-----
		U_{27} - L_{26}	173.82	114.87	-7.74			0.75	1.00	86.15	-5.80	0.00	0.00	Vehicle	Vehicle	412.63	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.32**	**5.53**	-----	-----
		U_{28} - L_{27}	186.60	117.05	-7.31			0.75	1.00	87.79	-5.48	0.00	0.00	Vehicle	Vehicle	432.78	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.58**	**5.96**	-----	-----
		U_{29} - L_{28}	190.75	104.90	-9.48			0.75	1.00	78.68	-7.11	0.00	0.00	Vehicle	Vehicle	418.43	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.51**	**5.85**	-----	-----
		U_{30} - L_{29}	161.86	85.90	-13.84			0.75	1.00	64.42	-10.38	0.00	0.00	Vehicle	Vehicle	350.00	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.55**	**7.59**	-----	-----
		U_{30} - L_{31}	191.72	86.66	-16.99			0.75	1.00	64.99	-12.74	0.00	0.00	Vehicle	Vehicle	390.06	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.41**	**9.01**	-----	-----
		U_{31} - L_{32}	226.45	108.22	-15.12			0.75	1.00	81.17	-11.34	0.00	0.00	Vehicle	Vehicle	470.24	-----	0.00	30.63	30.6305	1010.81	131.71	17.8750	2.8427	56.59	29.95	-779.87	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.07**	**6.79**	-----	-----
		U_{32} - L_{33}	243.42	127.76	-2.65			0.75	1.00	95.82	-1.99	0.00	0.00	Vehicle	Vehicle	524.06	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.76**	**6.27**	-----	-----
		U_{33} - L_{34}	239.13	89.02	-2.02			0.75	1.00	66.77	-1.52	0.00	0.00	Vehicle	Vehicle	455.53	-----	0.00	33.27	33.2657	1097.77	131.71	14.5729	2.8573	45.90	31.00	-876.43	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**5.44**	**9.07**	-----	-----
		U_{34} - L_{35}	222.16	78.94	0.00			0.75	1.00	59.21	0.00	0.00	0.00	Vehicle	Vehicle	417.08	-----	0.00	30.63	30.6305	1010.81	131.71	13.7604	2.8427	43.57	31.19

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capicity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Upper Chord	Structure 1	U$_0$ - U$_1$	-66.70	12.71	-38.85	2.21	-8.83	0.90	1.00	11.44	-34.97	2.21	-8.83	Vehicle	Vehicle	-----	-162.47	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	8.56	14.26
		U$_1$ - U$_2$	-86.55	30.99	-71.48	6.01	-16.34	0.90	1.00	27.89	-64.33	6.01	-16.34	Vehicle	Vehicle	-----	-251.90	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	4.47	7.44
		U$_2$ - U$_3$	-48.14	45.80	-68.63	9.46	-19.05	0.90	1.00	41.22	-61.76	9.46	-19.05	Vehicle	Vehicle	-----	-196.41	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	5.02	8.37
		U$_3$ - U$_4$	36.58	58.88	-55.48	12.74	-17.47	0.90	1.00	52.99	-49.94	12.74	-17.47	Vehicle	Pedestrian	162.38	-61.98	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	7.18	11.97	7.14	8.93
		U$_4$ - U$_5$	38.93	59.05	-54.96	12.80	-17.38	0.90	1.00	53.15	-49.46	12.80	-17.38	Vehicle	Pedestrian	165.77	-58.00	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	7.14	11.89	7.23	9.04
		U$_5$ - U$_6$	154.60	65.52	-30.80	15.16	-12.03	0.90	1.00	58.97	-27.72	15.16	-12.03	Vehicle	Pedestrian	328.75	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	5.26	8.76	-----	-----
		U$_6$ - U$_7$	288.38	70.40	-6.67	17.14	-4.31	0.90	1.00	63.36	-6.00	17.14	-4.31	Vehicle	Pedestrian	512.17	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	4.89	8.14	-----	-----
		U$_7$ - U$_8$	410.94	90.61	-1.09	22.63	0.00	0.90	1.00	81.55	-0.98	22.63	0.00	Vehicle	Vehicle	710.91	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	5.14	8.57	-----	-----
		U$_8$ - U$_9$	311.57	67.88	0.00	19.08	0.00	0.90	1.00	61.09	0.00	19.08	0.00	Vehicle	Vehicle	537.41	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	6.16	10.27	-----	-----
		U$_9$ - U$_{10}$	78.52	42.52	-24.92	12.28	-6.79	0.90	1.00	38.27	-22.43	12.28	-6.79	Vehicle	Vehicle	184.99	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	-----	-----	10.67	-----	-----	9.89	16.48	-----	-----
		U$_{10}$ - U$_{11}$	-141.43	40.31	-72.42	11.10	-18.41	0.90	1.00	36.28	-65.18	11.10	-18.41	Vehicle	Vehicle	-----	-325.09	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.20	7.00
		U$_{11}$ - U$_{12}$	-338.03	37.37	-116.01	9.77	-27.93	0.90	1.00	33.63	-104.41	9.77	-27.93	Vehicle	Vehicle	-----	-665.66	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	43.07	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	2.73	4.55
		U$_{12}$ - U$_{13}$	-480.08	32.89	-130.73	8.23	-34.32	0.90	1.00	29.60	-117.66	8.23	-34.32	Vehicle	Vehicle	-----	-879.04	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	44.42	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	3.35	5.59
		U$_{13}$ - U$_{14}$	-570.65	28.09	-136.25	6.68	-37.21	0.90	1.00	25.28	-122.62	6.68	-37.21	Vehicle	Vehicle	-----	-1007.52	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.78	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.70	6.17
		U$_{14}$ - U$_{15}$	-571.07	27.96	-136.09	6.65	-37.22	0.90	1.00	25.16	-122.48	6.65	-37.22	Vehicle	Vehicle	-----	-1007.77	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.78	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.71	6.18
		U$_{15}$ - U$_{16}$	-581.88	21.93	-125.09	4.98	-36.12	0.90	1.00	19.74	-112.58	4.98	-36.12	Vehicle	Vehicle	-----	-1000.37	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.94	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.97	6.62
		U$_{16}$ - U$_{17}$	-539.46	16.45	-107.70	3.52	-31.85	0.90	1.00	14.81	-96.93	3.52	-31.85	Vehicle	Vehicle	-----	-911.32	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	4.88	8.13
		U$_{17}$ - U$_{18}$	-422.33	10.66	-79.04	2.26	-25.05	0.90	1.00	9.59	-71.14	2.26	-25.05	Vehicle	Pedestrian	-----	-705.33	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	45.00	Pass	32.00	50.00	Pass	8.00	12.00	Pass	-----	-----	4.56	5.70
		U$_{18}$ - U$_{19}$	-286.19	6.02	-50.72	1.28	-16.96	0.90	1.00	5.41	-45.65	1.28	-16.96	Vehicle	Pedestrian	-----	-473.78	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	5.00	6.25
		U$_{19}$ - U$_{20}$	-140.84	2.55	-22.87	0.55	-8.68	0.90	1.00	2.30	-20.58	0.55	-8.68	Vehicle	Pedestrian	-----	-230.64	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	14.67	18.34
	Structure 2	U$_0$ - U$_1$	-147.44	8.35	-29.54	0.45	-4.88	0.90	1.00	7.52	-26.59	0.45	-4.88	Vehicle	Vehicle	-----	-249.28	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	11.28	18.80
		U$_1$ - U$_2$	-319.06	16.39	-71.51	1.96	-13.36	0.90	1.00	14.75	-64.36	1.96	-13.36	Vehicle	Vehicle	-----	-554.22	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.40	7.34
		U$_2$ - U$_3$	-460.91	29.66	-109.94	3.77	-20.95	0.90	1.00	26.70	-98.94	3.77	-20.95	Vehicle	Vehicle	-----	-813.56	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.69	4.00	0.69	16.00	95.35	272.00	30.22	44.79	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.74	6.23
		U$_3$ - U$_4$	-580.03	45.31	-147.96	5.92	-27.68	0.90	1.00	40.78	-133.16	5.92	-27.68	Vehicle	Vehicle	-----	-1042.56	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.17	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.43	5.72
		U$_4$ - U$_5$	-616.49	58.79	-169.36	7.86	-31.35	0.90	1.00	52.91	-152.43	7.86	-31.35	Vehicle	Vehicle	-----	-1131.69	15.14	69.44	54.2975	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.65	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.43	5.71
		U$_5$ - U$_6$	-604.71	72.36	-184.02	9.87	-32.88	0.90	1.00	65.12	-165.62	9.87	-32.88	Vehicle	Vehicle	-----	-1144.96	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.39	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.20	5.33
		U$_6$ - U$_7$	-514.78	82.51	-178.72	11.56	-31.23	0.90	1.00	74.26	-160.85	11.56	-31.23	Vehicle	Vehicle	-----	-1017.72	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.71	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.08	5.14
		U$_7$ - U$_8$	-512.83	82.58	-178.38	11.57	-31.18	0.90	1.00	74.33	-160.54	11.57	-31.18	Vehicle	Vehicle	-----	-1014.51	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.78	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.10	5.16
		U$_8$ - U$_9$	-373.51	91.48	-154.31	13.16	-27.41	0.90	1.00	82.33	-138.88	13.16	-27.41	Vehicle	Vehicle	-----	-786.47	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	3.25	5.42
		U$_9$ - U$_{10}$	-181.05	95.19	-115.70	14.25	-21.42	0.90	1.00	85.67	-104.13	14.25	-21.42	Vehicle	Vehicle	-----	-460.97	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	4.06	6.77
		U$_{10}$ - U$_{11}$	26.18	97.84	-76.42	15.21	-14.40	0.90	1.00	88.06	-68.77	15.21	-14.40	Vehicle	Vehicle	224.82	-114.98	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	-----	-----	6.03	10.04	6.94	11.57
		U$_{11}$ - U$_{12}$	237.39	94.64	-34.18	15.56	-6.85	0.90	1.00	85.18	-30.76	15.56	-6.85	Vehicle	Vehicle	493.16	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	4.74	7.90	-----	-----
		U$_{12}$ - U$_{13}$	435.89	105.23	-24.06	18.37	0.00	0.90	1.00	94.70	-21.66	18.37	0.00	Vehicle	Vehicle	771.85	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	4.46	7.43	-----	-----
		U$_{13}$ - U$_{14}$	595.84	129.55	-11.31	24.32	0.00	0.90	1.00	116.59	-10.18	24.32	0.00	Vehicle	Vehicle	1027.20	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.98	8.31	-----	-----
		U$_{14}$ - U$_{15}$	615.53	121.50	-5.46	24.37	0.00	0.90	1.00	109.35	-4.91	24.37	0.00	Vehicle	Vehicle	1037.12	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.21	8.68	-----	-----
		U$_{15}$ - U$_{16}$	486.15	88.43	-4.92	18.61	0.00	0.90	1.00	79.59	-4.43	18.61	0.00	Vehicle	Vehicle	804.43	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	5.93	9.88	-----	-----
		U$_{16}$ - U$_{17}$	339.27	77.01	-14.09	14.66	-2.95	0.90	1.00	69.31	-12.68	14.66	-2.95	Vehicle	Vehicle	591.22	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	7.11	-----	-----	6.10	10.17	-----	-----
		U$_{17}$ - U$_{18}$	192.13	82.64	-53.10	15.12	-9.49	0.90	1.00	74.37	-47.79	15.12	-9.49	Vehicle	Vehicle	410.91	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	4.63	7.72	-----	-----
		U$_{18}$ - U$_{19}$	53.83	85.46	-88.80	15.12	-15.34	0.90	1.00	76.91	-79.92	15.12	-15.34	Vehicle	Vehicle	236.63	-103.17	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	5.56	9.26	5.26	8.77
		U$_{19}$ - U$_{20}$	-58.94	88.05	-120.54	15.07	-19.84	0.90	1.00	79.24	-108.48	15.07	-19.84	Vehicle	Vehicle	95.07	-311.67	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.66	11.09	3.51	5.84
	Structure 3	U$_0$ - U$_1$	-125.32	87.98	-125.82	14.77	-22.39	0.90	1.00	79.18	-113.24	14.77	-22.39	Vehicle	Vehicle	-----	-408.27	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.77	6.28
		U$_1$ - U$_2$	-146.72	87.13	-122.04	14.37	-22.74	0.90	1.00	78.41	-109.84	14.37	-22.74	Vehicle	Vehicle	-----	-428.71	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.77	6.28
		U$_2$ - U$_3$	-146.49	86.99	-121.75	14.36	-22.72	0.90	1.00	78.29	-109.57	14.36	-22.72	Vehicle	Vehicle	-----	-427.84	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.78	6.30
		U$_3$ - U$_4$	-112.53	83.47	-104.68	13.88	-21.04	0.90	1.00	75.12	-94.21	13.88	-21.04	Vehicle	Vehicle	-----	-350.42	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.61	7.69
		U$_4$ - U$_5$	-36.03	79.54	-81.64	13.40	-17.33	0.90	1.00	71.59	-73.47	13.40	-17.33	Vehicle	Vehicle	108.28	-206.02	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	7.18	11.96	5.36	8.94
		U$_5$ - U$_6$	80.94	73.11	-49.48	12.93	-12.15	0.90	1.00	65.80	-44.54	12.93	-12.15	Vehicle	Vehicle	247.78	-----	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	6.25	10.42	-----	-----
		U$_6$ - U$_7$	220.82	67.18	-19.39	12.57	-7.08	0.90	1.00	60.46	-17.45	12.57	-7.08	Vehicle	Pedestrian	418.06	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	5.41	9.02	-----	-----
		U$_7$ - U$_8$	363.48	72.63	-1.01	14.90	-2.16	0.90	1.00	65.36	-0.91	14.90	-2.16	Vehicle	Pedestrian	614.15	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	7.11	-----	-----	6.25	10.41	-----	-----
		U$_8$ - U$_9$	503.92	105.10	0.00	21.74	0.00	0.90	1.00	94.59	0.00	21.74	0.00	Vehicle	Vehicle	860.03	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	4.87	8.12	-----	-----
		U$_9$ - U$_{10}$	616.62	127.28	-11.02	27.08	0.00	0.90	1.00	114.56	-9.92	27.08	0.00	Vehicle	Vehicle	1049.81	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.96	8.27	----

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane

Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17

Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Artic
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	Impact & Pedestrian Load MAX	Impact & Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capacity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Lower Chord	Structure 1	L_0- L_1	-1.94	9.06	-5.28	0.37	-2.06	0.90	1.00	8.16	-4.75	0.37	-2.06	Vehicle	Pedestrian	15.15	-13.59	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	**37.11**	**61.86**	**49.51**	**61.88**
		L_1 - L_2	67.93	37.67	-18.03	9.23	-3.35	0.90	1.00	33.91	-16.23	9.23	-3.35	Vehicle	Vehicle	161.77	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.69**	**12.82**	-----	-----
		L_2 - L_3	78.83	76.11	-38.85	15.48	-7.39	0.90	1.00	68.50	-34.97	15.48	-7.39	Vehicle	Vehicle	250.89	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**5.17**	**8.61**	-----	-----
		L_3 - L_4	39.11	72.66	-53.62	18.09	-10.83	0.90	1.00	65.40	-48.26	18.09	-10.83	Vehicle	Vehicle	192.53	-53.73	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	**5.78**	**9.63**	**7.49**	**12.48**
		L_4 - L_5	-166.44	40.21	-76.17	10.96	-16.91	0.90	1.00	36.19	-68.55	10.96	-16.91	Vehicle	Vehicle	-----	-364.90	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**2.92**	**4.87**
		L_5 - L_6	-301.30	15.60	-81.30	3.24	-18.94	0.90	1.00	14.04	-73.17	3.24	-18.94	Vehicle	Vehicle	-----	-550.22	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	42.72	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**2.94**	**4.90**
		L_6 - L_7	-439.01	5.25	-95.34	0.00	-26.52	0.90	1.00	4.73	-85.80	0.00	-26.52	Vehicle	Vehicle	-----	-756.61	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	43.61	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.54**	**5.90**
		L_7 - L_8	-551.71	0.77	-115.97	0.00	-35.56	0.90	1.00	0.69	-104.37	0.00	-35.56	Vehicle	Pedestrian	-----	-944.60	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	44.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.70**	**4.63**
		L_8 - L_9	-570.55	4.28	-126.08	0.00	-37.48	0.90	1.00	3.85	-113.47	0.00	-37.48	Vehicle	Vehicle	-----	-987.56	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	43.03	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.33**	**5.54**
		L_9 - L_{10}	-355.55	8.55	-82.00	0.00	-24.70	0.90	1.00	7.69	-73.80	0.00	-24.70	Vehicle	Pedestrian	-----	-622.26	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**4.79**	**5.99**
		L_{10} - L_{11}	-118.56	20.95	-35.32	0.00	-12.42	0.90	1.00	18.85	-31.78	0.00	-12.42	Vehicle	Pedestrian	-----	-225.95	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**6.91**	**8.64**
		L_{11} - L_{12}	103.33	56.90	-32.99	9.97	-9.47	0.90	1.00	51.21	-29.69	9.97	-9.47	Vehicle	Vehicle	245.28	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.75**	**9.58**	-----	-----
		L_{12} - L_{13}	300.47	106.85	-30.93	17.86	-8.15	0.90	1.00	96.17	-27.84	17.86	-8.15	Vehicle	Vehicle	598.96	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.21**	**7.01**	-----	-----
		L_{13} - L_{14}	441.01	121.22	-26.49	24.18	-6.62	0.90	1.00	109.10	-23.84	24.18	-6.62	Vehicle	Vehicle	809.70	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.77**	**7.95**	-----	-----
		L_{14} - L_{15}	546.80	120.29	-17.35	24.61	-3.50	0.90	1.00	108.26	-15.62	24.61	-3.50	Vehicle	Vehicle	945.40	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.70**	**9.49**	-----	-----
		L_{15} - L_{16}	505.90	103.07	-16.44	20.37	-2.04	0.90	1.00	92.77	-14.79	20.37	-2.04	Vehicle	Vehicle	858.66	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**6.91**	**11.52**	-----	-----
		L_{16} - L_{17}	398.64	78.81	-14.89	12.78	-0.84	0.90	1.00	70.93	-13.40	12.78	-0.84	Vehicle	Vehicle	671.91	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	**6.92**	**11.53**	-----	-----
		L_{17} - L_{18}	263.76	60.96	-12.29	4.87	0.00	0.90	1.00	54.86	-11.06	4.87	0.00	Vehicle	Vehicle	461.75	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	**6.78**	**11.29**	-----	-----
		L_{18} - L_{19}	118.86	49.32	-9.70	0.70	-3.28	0.90	1.00	44.39	-8.73	0.70	-3.28	Vehicle	Pedestrian	250.69	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**5.19**	**8.65**	-----	-----
		L_{19} - L_{20}	-23.25	42.86	-8.05	1.27	-12.00	0.90	1.00	38.58	-7.24	1.27	-12.00	Vehicle	Pedestrian	53.36	-61.49	1.95	17.93	15.9750	591.53	131.71	10.8073	5.7170	17.13	32.72	-498.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	**7.44**	**12.40**	**14.98**	**18.72**
		L_0' L_1	-35.95	24.41	-16.52	1.33	-5.13	0.90	1.00	21.97	-14.87	1.33	-5.13	Vehicle	Pedestrian	-----	-79.24	1.88	24.95	23.0700	823.35	131.71	10.8828	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	45.00	Pass	6.32	12.00	Pass	6.32	12.00	Pass	-----	-----	**19.96**	**24.95**
		L_1 - L_2	132.83	29.04	-6.90	2.94	-0.07	0.90	1.00	26.13	-6.21	2.94	-0.07	Vehicle	Vehicle	229.29	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**11.49**	**19.15**	-----	-----
		L_2 - L_3	304.11	68.95	-18.09	10.53	-1.80	0.90	1.00	62.06	-16.28	10.53	-1.80	Vehicle	Vehicle	529.80	-----	6.20	38.45	32.2500	1268.85	131.71	10.7370	6.1675	15.67	32.77	-1070.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	**6.50**	**10.83**	-----	-----
		L_3 - L_4	445.92	107.52	-31.50	18.16	-3.63	0.90	1.00	96.77	-28.35	18.16	-3.63	Vehicle	Vehicle	789.36	-----	9.45	51.58	42.1250	1701.98	131.71	10.7370	5.7558	16.79	32.73	-1434.93	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	**5.35**	**8.92**	-----	-----
		L_4 - L_5	567.84	151.77	-50.18	24.82	-6.10	0.90	1.00	136.60	-45.16	24.82	-6.10	Vehicle	Vehicle	1034.15	-----	11.00	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.90	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.75**	**7.92**	-----	-----
		L_5 - L_6	603.64	173.09	-63.75	28.47	-8.06	0.90	1.00	155.78	-57.37	28.47	-8.06	Vehicle	Vehicle	1122.25	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.58**	**7.63**	-----	-----
		L_6 - L_7	599.48	194.19	-80.60	30.26	-10.41	0.90	1.00	174.77	-72.54	30.26	-10.41	Vehicle	Vehicle	1158.00	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	**4.18**	**6.97**	-----	-----
		L_7 - L_8	373.94	165.39	-99.58	24.93	-13.66	0.90	1.00	148.85	-89.62	24.93	-13.66	Vehicle	Vehicle	808.63	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	**3.90**	**6.50**	-----	-----
		L_8 - L_9	195.71	133.78	-106.81	19.52	-15.12	0.90	1.00	120.40	-96.13	19.52	-15.12	Vehicle	Vehicle	515.29	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	**4.51**	**7.51**	-----	-----
		L_9 - L_{10}	-13.21	94.33	-109.67	12.45	-16.11	0.90	1.00	84.90	-98.70	12.45	-16.11	Vehicle	Vehicle	166.77	-231.03	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	**6.18**	**10.31**	**4.34**	**7.24**
		L_{10} - L_{11}	-217.32	56.77	-110.50	5.50	-17.02	0.90	1.00	51.09	-99.45	5.50	-17.02	Vehicle	Vehicle	-----	-497.98	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.78	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	44.50	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.61**	**4.36**
		L_{11} - L_{12}	-419.93	46.19	-107.74	0.00	-23.34	0.90	1.00	41.57	-96.96	0.00	-23.34	Vehicle	Vehicle	-----	-756.00	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	43.22	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.16**	**5.27**
		L_{12} - L_{13}	-591.41	27.52	-133.93	0.00	-30.09	0.90	1.00	24.77	-120.53	0.00	-30.09	Vehicle	Vehicle	-----	-1029.98	9.73	59.10	49.3700	1950.30	131.71	10.9531	5.8186	16.94	32.73	-1644.04	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	43.18	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.35**	**5.59**
		L_{13} - L_{14}	-724.23	17.73	-152.30	0.00	-35.12	0.90	1.00	15.96	-137.07	0.00	-35.12	Vehicle	Vehicle	-----	-1238.48	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.11	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.46**	**5.77**
		L_{14} - L_{15}	-747.05	18.29	-163.72	0.00	-36.29	0.90	1.00	16.46	-147.34	0.00	-36.29	Vehicle	Vehicle	-----	-1290.40	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	42.24	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.13**	**5.21**
		L_{15} - L_{16}	-632.15	17.63	-136.79	0.00	-31.21	0.90	1.00	15.86	-123.11	0.00	-31.21	Vehicle	Vehicle	-----	-1088.53	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	42.18	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.14**	**5.23**
		L_{16} - L_{17}	-488.62	20.07	-95.35	0.00	-25.39	0.90	1.00	18.07	-85.81	0.00	-25.39	Vehicle	Vehicle	-----	-821.14	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	44.01	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.91**	**6.51**
		L_{17} - L_{18}	-336.98	23.50	-64.51	0.00	-18.12	0.90	1.00	21.15	-58.06	0.00	-18.12	Vehicle	Vehicle	-----	-563.87	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	44.23	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**4.04**	**6.73**
		L_{18} - L_{19}	-183.61	34.51	-58.12	4.48	-11.34	0.90	1.00	31.06	-52.30	4.48	-11.34	Vehicle	Vehicle	-----	-352.02	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.47**	**7.46**
		L_{19} - L_{20}	-45.77	69.24	-60.93	8.92	-9.58	0.90	1.00	62.32	-54.83	8.92	-9.58	Vehicle	Vehicle	75.52	-178.30	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.98**	**11.63**	**5.78**	**9.63**
	Structure 2	L_{20} - L_{21}	68.00	107.68	-65.95	11.57	-9.12	0.90	1.00	96.92	-59.36	11.57	-9.12	Vehicle	Vehicle	298.38	-----	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.55**	**9.25**	-----	-----
		L_{21} - L_{22}	133.90	112.78	-65.93	13.61	-8.82	0.90	1.00	101.50	-59.34	13.61	-8.82	Vehicle	Vehicle	394.00	-----	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.91**	**8.18**	-----	-----
		L_{22} - L_{23}	122.50	97.66	-66.80	11.79	-7.58	0.90	1.00	87.89	-60.12	11.79	-7.58	Vehicle	Vehicle	349.68	-----	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.75**	**9.58**	-----	-----
		L_{23} - L_{24}	46.70	77.56	-66.61	8.09	-7.09	0.90	1.00	69.80	-59.95	8.09	-7.09	Vehicle	Vehicle	211.95	-69.19	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**7.89**	**13.15**	**8.62**	**14.36**
		L_{24} - L_{25}	-66.76	69.97	-68.97	3.32	-6.24	0.90	1.00	62.97	-62.07	3.32	-6.24	Vehicle	Vehicle	-----	-221.26	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.90**	**8.17**
		L_{25} - L_{26}	-205.83	64.62	-64.22	0.00	-11.78	0.90	1.00	58.16	-57.79	0.00	-11.78	Vehicle	Vehicle	-----	-392.80	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.82**	**6.36**
		L_{26} - L_{27}	-350.61	60.60	-67.85	0.00	-18.88	0.90	1.00	54.54	-61.07	0.00	-18.88	Vehicle	Vehicle	-----	-588.10	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	43.31	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.70**	**6.17**
		L_{27} - L_{28}	-494.76	51.24	-101.25	0.00	-25.89	0.90	1.00	46.12	-91.12	0.00	-25.89	Vehicle	Vehicle	-----	-840.63	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	43.50	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.64**	**6.07**
		L_{28} - L_{29}	-620.88	44.17	-123.99	0.00	-31.79	0.90	1.00	39.75	-111.59	0.00	-31.79	Vehicle	Vehicle	-----	-1048.92	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	42.97	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.52**	**5.87**
		L_{29} - L_{30}	-716.82	35.19	-140.75	0.00	-36.30	0.90	1.00	31.67	-126.67	0.00	-36.30	Vehicle	Vehicle	-----	-1206.32	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.68	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.78**	**6.30**
		L_{30} - L_{31}	-850.86	56.56	-166.29	0.00	-35.98	0.90	1.00	50.91	-149.66	0.00	-35.98	Vehicle	Vehicle	-----	-1430.40

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Artic
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capicity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Verticals	Structure 1	U$_0$ - L$_0$	-93.63	19.00	-59.06	3.44	-12.32	0.90	1.00	17.10	-53.15	3.44	-12.32	Vehicle	Vehicle	-----	-236.88	1.63	16.85	15.2186	556.00	131.71	9.3438	1.9682	42.73	31.26	-447.73	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	2.83	4.72
		U$_1$ - L$_1$	-46.50	16.45	-39.66	2.93	-9.05	0.90	1.00	14.80	-35.69	2.93	-9.05	Vehicle	Vehicle	-----	-137.78	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.14	8.56
		U$_2$ - L$_2$	-0.07	14.71	-28.58	2.84	-5.68	0.90	1.00	13.24	-25.73	2.84	-5.68	Vehicle	Vehicle	28.60	-55.83	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	19.38	32.30	8.21	13.68
		U$_3$ - L$_3$	39.61	18.50	-3.84	2.70	-2.12	0.90	1.00	16.65	-3.46	2.70	-2.12	Vehicle	Pedestrian	87.57	-----	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	13.99	23.31	-----	-----
		U$_4$ - L$_4$	-30.21	1.65	-13.36	0.00	-3.47	0.90	1.00	1.48	-12.03	0.00	-3.47	Vehicle	Vehicle	-----	-65.33	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	15.95	26.58
		U$_5$ - L$_5$	-130.50	1.41	-37.01	0.00	-10.24	0.90	1.00	1.27	-33.31	0.00	-10.24	Vehicle	Vehicle	-----	-241.83	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	5.31	8.85
		U$_6$ - L$_6$	-158.19	6.08	-46.57	0.00	-13.06	0.90	1.00	5.47	-41.91	0.00	-13.06	Vehicle	Vehicle	-----	-296.46	3.13	24.86	21.7294	820.36	131.71	9.9479	2.0895	42.85	31.25	-660.40	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	5.01	8.35
		U$_7$ - L$_7$	-152.33	10.78	-41.93	0.00	-13.25	0.90	1.00	9.70	-37.74	0.00	-13.25	Vehicle	Pedestrian	-----	-280.87	2.88	23.11	20.2294	762.61	131.71	11.7292	2.0414	51.71	30.46	-598.26	16.25	0.44	10.00	0.50	-----	-----	16.25	-----	-----	37.14	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	4.83	6.04
		U$_8$ - L$_8$	-455.44	8.34	-99.80	0.00	-31.72	0.90	1.00	7.51	-89.82	0.00	-31.72	Vehicle	Pedestrian	-----	-789.57	3.28	51.23	47.9548	1690.75	131.71	16.6563	4.0434	37.07	31.69	-1380.20	15.25	0.82	15.64	1.31	-----	-----	15.25	-----	-----	18.60	45.00	Pass	5.96	12.00	Pass	-----	-----	-----	-----	-----	3.99	4.99
		U$_9$ - L$_9$	-287.50	3.30	-71.11	0.00	-18.21	0.90	1.00	2.97	-64.00	0.00	-18.21	Vehicle	Vehicle	-----	-512.41	3.50	31.56	28.0625	1041.56	131.71	12.1563	2.5582	42.77	31.26	-838.65	16.25	0.50	12.00	0.63	-----	-----	16.25	-----	-----	32.50	44.74	Pass	9.60	12.00	Pass	-----	-----	-----	-----	-----	3.35	5.59
		U$_{10}$ - L$_{10}$	-276.27	1.76	-71.33	0.00	-17.55	0.90	1.00	1.58	-64.19	0.00	-17.55	Vehicle	Vehicle	-----	-498.23	2.76	36.13	33.3715	1192.34	131.71	10.7083	2.3777	40.53	31.44	-965.49	16.16	0.83	11.50	0.80	-----	-----	16.16	-----	-----	19.50	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	4.36	7.27
		U$_{11}$ - L$_{11}$	-232.54	1.88	-63.41	0.00	-14.42	0.90	1.00	1.69	-57.07	0.00	-14.42	Vehicle	Vehicle	-----	-425.96	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.30	7.16
		U$_{12}$ - L$_{12}$	-178.38	1.18	-53.56	0.00	-11.20	0.90	1.00	1.06	-48.20	0.00	-11.20	Vehicle	Vehicle	-----	-336.33	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	-----	-----	16.25	-----	-----	32.50	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	4.41	7.35
		U$_{13}$ - L$_{13}$	-127.70	1.07	-22.73	0.00	-7.88	0.90	1.00	0.96	-20.46	0.00	-7.88	Vehicle	Pedestrian	-----	-212.06	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	7.14	8.92
		U$_{14}$ - L$_{14}$	-30.38	0.25	-14.00	0.00	-3.03	0.90	1.00	0.22	-12.60	0.00	-3.03	Vehicle	Vehicle	-----	-66.79	0.00	16.85	16.8486	556.00	131.71	9.2605	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	14.97	24.96
		U$_{15}$ - L$_{15}$	-28.93	6.52	-20.81	1.55	-4.53	0.90	1.00	5.87	-18.73	1.55	-4.53	Vehicle	Vehicle	-----	-78.18	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	10.07	16.78
		U$_{16}$ - L$_{16}$	-75.99	6.38	-26.54	1.39	-7.07	0.90	1.00	5.74	-23.89	1.39	-7.07	Vehicle	Vehicle	-----	-150.54	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.67	11.11
		U$_{17}$ - L$_{17}$	-161.81	6.95	-40.00	1.30	-10.66	0.90	1.00	6.25	-36.00	1.30	-10.66	Vehicle	Vehicle	-----	-288.35	0.00	20.66	20.0644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	4.16	6.93
		U$_{18}$ - L$_{18}$	-190.09	5.96	-41.75	1.12	-12.69	0.90	1.00	5.37	-37.57	1.12	-12.69	Vehicle	Pedestrian	-----	-328.80	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	5.34	6.67
		U$_{19}$ - L$_{19}$	-228.09	5.11	-43.24	0.97	-14.99	0.90	1.00	4.60	-38.92	0.97	-14.99	Vehicle	Pedestrian	-----	-384.11	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	5.76	7.20
		U$_{20}$ - L$_{20}$	-242.54	4.59	-42.25	0.95	-15.62	0.90	1.00	4.13	-38.02	0.95	-15.62	Vehicle	Pedestrian	-----	-402.46	0.00	27.86	27.8600	919.38	131.71	20.3229	2.7881	65.60	28.91	-684.53	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.24	5.30
	Structure 2	U$_0$ - L$_0$	-302.99	16.99	-78.50	2.22	-15.08	0.90	1.00	15.29	-70.65	2.22	-15.08	Vehicle	Vehicle	-----	-546.97	0.00	33.27	33.2657	1097.77	131.71	19.1510	2.8573	60.32	29.54	-835.23	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	44.45	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	2.88	4.81
		U$_1$ - L$_1$	-268.80	17.28	-68.22	2.12	-13.67	0.90	1.00	15.55	-61.40	2.12	-13.67	Vehicle	Vehicle	-----	-482.46	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.94	6.57
		U$_2$ - L$_2$	-220.88	18.55	-63.77	2.34	-12.32	0.90	1.00	16.70	-57.39	2.34	-12.32	Vehicle	Vehicle	-----	-411.50	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.70	6.16
		U$_3$ - L$_3$	-175.24	19.88	-57.11	2.49	-10.35	0.90	1.00	17.89	-51.40	2.49	-10.35	Vehicle	Vehicle	-----	-339.19	0.00	22.73	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	45.00	Pass	4.91	12.00	Pass	-----	-----	-----	-----	-----	3.23	5.38
		U$_4$ - L$_4$	-82.09	17.07	-38.79	2.21	-6.62	0.90	1.00	15.36	-34.91	2.21	-6.62	Vehicle	Vehicle	-----	-182.35	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	4.42	7.36
		U$_5$ - L$_5$	-19.91	16.84	-27.37	2.23	-4.16	0.90	1.00	15.16	-24.63	2.23	-4.16	Vehicle	Vehicle	-----	-79.24	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	7.81	13.02
		U$_6$ - L$_6$	60.32	12.21	-7.57	1.75	-0.47	0.90	1.00	10.98	-6.81	1.75	-0.47	Vehicle	Vehicle	102.21	-----	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	20.07	33.45	-----	-----
		U$_7$ - L$_7$	-41.78	0.59	-28.43	0.00	-2.50	0.90	1.00	0.53	-25.59	0.00	-2.50	Vehicle	Vehicle	-----	-109.75	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	7.01	11.68
		U$_8$ - L$_8$	-189.01	0.13	-40.85	0.00	-8.38	0.90	1.00	0.11	-36.77	0.00	-8.38	Vehicle	Vehicle	-----	-325.38	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	-----	-----	15.75	-----	-----	36.00	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	5.57	9.29
		U$_9$ - L$_9$	-254.00	1.59	-63.98	0.00	-10.55	0.90	1.00	1.43	-57.58	0.00	-10.55	Vehicle	Vehicle	-----	-454.96	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	4.56	7.59
		U$_{10}$ - L$_{10}$	-290.02	3.58	-67.03	0.00	-12.18	0.90	1.00	3.22	-60.32	0.00	-12.18	Vehicle	Vehicle	-----	-507.72	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.86	8.10
		U$_{11}$ - L$_{11}$	-312.19	10.32	-68.20	0.00	-12.59	0.90	1.00	9.29	-61.38	0.00	-12.59	Vehicle	Vehicle	-----	-538.83	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.42	7.37
		U$_{12}$ - L$_{12}$	-327.27	15.51	-65.98	0.00	-13.75	0.90	1.00	13.96	-59.38	0.00	-13.75	Vehicle	Vehicle	-----	-554.10	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.79	7.99
		U$_{13}$ - L$_{13}$	-277.23	21.22	-55.66	0.45	-12.38	0.90	1.00	19.10	-50.09	0.45	-12.38	Vehicle	Vehicle	-----	-468.94	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.95	8.24
		U$_{14}$ - L$_{14}$	-505.47	22.26	-102.72	0.00	-21.42	0.90	1.00	20.03	-92.44	0.00	-21.42	Vehicle	Vehicle	-----	-857.41	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	-----	-----	-----	3.55	5.91
		U$_{15}$ - L$_{15}$	-232.92	13.44	-65.77	1.67	-12.16	0.90	1.00	12.10	-59.19	1.67	-12.16	Vehicle	Vehicle	-----	-431.05	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.63	7.72
		U$_{16}$ - L$_{16}$	-260.09	9.59	-79.52	0.83	-13.04	0.90	1.00	8.63	-71.57	0.83	-13.04	Vehicle	Vehicle	-----	-493.18	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.40	5.67
		U$_{17}$ - L$_{17}$	-228.20	9.28	-66.29	0.66	-11.76	0.90	1.00	8.35	-59.66	0.66	-11.76	Vehicle	Vehicle	-----	-425.93	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.97	6.62
		U$_{18}$ - L$_{18}$	-209.23	6.73	-60.53	0.00	-11.28	0.90	1.00	6.06	-54.47	0.00	-11.28	Vehicle	Vehicle	-----	-390.02	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.05	6.76
		U$_{19}$ - L$_{19}$	-166.51	7.66	-52.28	0.00	-9.53	0.90	1.00	6.90	-47.05	0.00	-9.53	Vehicle	Vehicle	-----	-318.41	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	4.40	7.33
		U$_{20}$ - L$_{20}$	-113.91	5.11	-38.28	0.00	-7.50	0.90	1.00	4.60	-34.45	0.00	-7.50	Vehicle	Vehicle	-----	-222.71	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	4.55	7.58
	Structure 3	U$_{21}$ - L$_{21}$	-62.73	5.07	-21.10	0.00	-5.22	0.90	1.00	4.56	-18.99	0.00	-5.22	Vehicle	Vehicle	-----	-122.69	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	8.78	14.63
		U$_{22}$ - L$_{22}$	-38.93	0.44	-14.56	0.00	-2.15	0.90	1.00	0.39	-13.11	0.00	-2.15	Vehicle	Vehicle	-----	-79.01	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	13.87	23.11
		U$_{23}$ - L$_{23}$	-74.45	4.28	-29.27	0.48	-6.10	0.90	1.00	3.85	-26.34	0.48	-6.10	Vehicle	Vehicle	-----	-153.86	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.06	10.10
		U$_{24}$ - L$_{24}$	-121.37	4.77	-51.91	0.37	-8.17	0.90	1.00	4.29	-46.72	0.37	-8.17	Vehicle	Vehicle	-----	-259.01	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	3.26	5.43
		U$_{25}$ - L$_{25}$	-169.10	8.03	-59.64	0.43	-9.94	0.90	1.00	7.22	-53.68	0.43	-9.94	Vehicle	Vehicle	-----	-336.14	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	3.83	6.38
		U$_{26}$ - L$_{26}$	-207.93	8.10	-62.37	0.14	-11.42	0.90	1.00	7.29	-56.14	0.14	-11.42	Vehicle	Vehicle	-----	-391.93	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.95	6.58
		U$_{27}$ - L$_{27}$	-219.90	15.99	-59.83	0.16	-11.49	0.90	1.00	14.39	-53.85	0.16	-11.49	Vehicle	Vehicle	-----	-402.53	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.49	7.49
		U$_{28}$ - L$_{28}$	-240.66	20.33	-62.70	0.00	-12.59	0.90	1.00	18.29	-56.43	0.00	-12.59	Vehicle	Vehicle	-----	-435.12	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	4.52	7.54
		U$_{29}$ - L$_{29}$	-202.76	28.18	-49.79	0.00	-10.35	0.90	1.00	25.36	-44.81	0.00	-10.35	Vehicle	Vehicle	-----	-360.67	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	6.53	10.88
		U$_{30}$ - L$_{30}$	-516.45	21.60	-99.58	0.00	-22.02	0.90	1.00	19.44	-89.62	0.00	-22.02	Vehicle	Vehicle	-----	-865.56	11.02	51.81	40.7900	1709.73	131.71	25.6094	4.0330	57.15	29.89	-1316.46	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	44.10	Pass	5.68	12.00	Pass	-----	-----	-----	-----	-----	3.32	5.54
		U$_{31}$ - L$_{31}$

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Location		Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	Impact & Pedestrian Load MAX	Impact & Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capicity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Diagonals	Structure 1	U_0 - L_1	87.61	62.34	-25.81	14.00	-4.60	0.90	1.00	56.10	-23.23	14.00	-4.60	Vehicle	Vehicle	235.45	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	**5.33**	**8.89**	-----	-----
		U_1 - L_2	23.84	48.22	-25.31	9.20	-4.72	0.90	1.00	43.39	-22.78	9.20	-4.72	Vehicle	Vehicle	125.02	-----	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.58**	**9.31**	-----	-----
		U_2 - L_3	-49.05	6.76	-28.96	3.33	-4.33	0.90	1.00	6.08	-26.06	3.33	-4.33	Pedestrian	Vehicle	-----	-120.23	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**6.56**	**10.94**
		U_3 - L_4	-108.90	1.30	-40.25	0.00	-6.31	0.90	1.00	1.17	-36.23	0.00	-6.31	Vehicle	Vehicle	-----	-220.06	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	-----	-----
		U_4 - L_4	153.14	47.00	0.00	10.12	0.00	0.90	1.00	42.30	0.00	10.12	0.00	Vehicle	Vehicle	290.74	-----	0.00	20.66	20.6644	681.93	131.71	11.6953	2.0011	52.60	30.37	-533.41	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**5.27**	**8.78**	-----	-----
		U_5 - L_5	186.37	48.57	-2.26	13.44	0.00	0.90	1.00	43.71	-2.03	13.44	0.00	Vehicle	Vehicle	336.99	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**6.37**	**10.62**	-----	-----
		U_6 - L_6	177.53	51.51	-12.45	14.14	0.00	0.90	1.00	46.36	-11.21	14.14	0.00	Vehicle	Vehicle	331.23	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**6.12**	**10.21**	-----	-----
		U_7 - L_7	173.15	44.94	-12.24	13.87	0.00	0.90	1.00	40.44	-11.02	13.87	0.00	Pedestrian	Vehicle	313.36	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**7.03**	**8.79**	-----	-----
		U_8 - L_8	328.03	78.02	-4.45	19.45	-0.14	0.90	1.00	70.21	-4.01	19.45	-0.14	Vehicle	Vehicle	578.56	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.42**	**9.03**	-----	-----
		U_9 - L_{10}	339.64	83.47	-3.12	19.75	0.00	0.90	1.00	75.13	-2.81	19.75	0.00	Vehicle	Vehicle	604.30	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**4.97**	**8.29**	-----	-----
		U_{10} - L_{11}	313.15	80.65	-2.47	18.15	0.00	0.90	1.00	72.58	-2.23	18.15	0.00	Vehicle	Vehicle	564.36	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**4.94**	**8.23**	-----	-----
		U_{11} - L_{12}	270.62	73.92	-2.50	14.84	0.00	0.90	1.00	66.53	-2.25	14.84	0.00	Vehicle	Vehicle	495.94	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.57**	**7.62**	-----	-----
		U_{12} - L_{13}	194.11	31.79	-1.43	10.79	0.00	0.90	1.00	28.61	-1.29	10.79	0.00	Pedestrian	Vehicle	316.36	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**8.87**	**11.09**	-----	-----
		U_{13} - L_{14}	123.52	23.55	-1.22	5.97	0.00	0.90	1.00	21.20	-1.10	5.97	0.00	Vehicle	Vehicle	206.49	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.61**	**14.35**	-----	-----
		U_{15} - L_{14}	-16.31	18.93	-9.52	1.47	-2.35	0.90	1.00	17.04	-8.57	1.47	-2.35	Vehicle	Vehicle	15.71	-39.77	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**15.64**	**26.06**	**21.85**	**36.41**
		U_{16} - L_{15}	59.11	28.34	-8.87	6.08	-2.09	0.90	1.00	25.50	-7.98	6.08	-2.09	Vehicle	Vehicle	132.10	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.67**	**14.45**	-----	-----
		U_{17} - L_{16}	172.05	46.32	-9.66	9.93	-1.86	0.90	1.00	41.68	-8.70	9.93	-1.86	Vehicle	Vehicle	313.99	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**5.07**	**8.46**	-----	-----
		U_{18} - L_{17}	210.69	47.57	-8.22	12.50	-1.53	0.90	1.00	42.81	-7.39	12.50	-1.53	Vehicle	Vehicle	366.67	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**6.17**	**10.28**	-----	-----
		U_{19} - L_{18}	242.30	50.04	-6.56	13.72	-1.21	0.90	1.00	45.03	-5.91	13.72	-1.21	Vehicle	Vehicle	412.57	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**6.23**	**10.39**	-----	-----
		U_{20} - L_{19}	257.77	45.56	-5.39	15.71	-1.03	0.90	1.00	41.00	-4.85	15.71	-1.03	Pedestrian	Vehicle	427.26	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**6.38**	**7.98**	-----	-----
		U_0 - L_1	299.01	70.94	-18.04	14.21	-2.21	0.90	1.00	63.84	-16.23	14.21	-2.21	Vehicle	Vehicle	527.03	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.50**	**7.50**	-----	-----
		U_1 - L_2	284.23	75.30	-21.52	14.05	-2.66	0.90	1.00	67.77	-19.37	14.05	-2.66	Vehicle	Vehicle	516.32	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.37**	**7.28**	-----	-----
		U_2 - L_3	221.45	65.84	-22.84	11.83	-2.85	0.90	1.00	59.26	-20.55	11.83	-2.85	Vehicle	Vehicle	416.27	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.35**	**7.24**	-----	-----
		U_3 - L_4	178.33	63.44	-25.79	10.08	-3.23	0.90	1.00	57.10	-23.21	10.08	-3.23	Vehicle	Vehicle	355.53	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**4.19**	**6.98**	-----	-----
		U_4 - L_5	53.52	36.26	-21.86	5.38	-2.87	0.90	1.00	32.64	-19.67	5.38	-2.87	Vehicle	Vehicle	140.28	-----	0.00	16.85	16.8486	556.00	131.71	15.3958	1.9682	70.40	28.29	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**6.88**	**11.47**	-----	-----
		U_5 - L_6	-16.50	26.44	-21.73	2.23	-2.92	0.90	1.00	23.80	-19.56	2.23	-2.92	Vehicle	Vehicle	30.11	-63.83	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**11.20**	**18.67**	**9.49**	**15.81**
		U_6 - L_7	-133.20	4.60	-25.02	0.00	-5.36	0.90	1.00	4.14	-22.52	0.00	-5.36	Vehicle	Vehicle	-----	-221.96	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	**6.02**	**10.04**
		U_7 - L_7	208.77	41.92	-2.53	8.33	0.00	0.90	1.00	37.73	-2.28	8.33	0.00	Vehicle	Vehicle	353.14	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**6.27**	**10.46**	-----	-----
		U_8 - L_8	289.58	66.77	-1.33	10.70	0.00	0.90	1.00	60.09	-1.20	10.70	0.00	Vehicle	Vehicle	506.65	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**4.20**	**7.00**	-----	-----
		U_{10} - L_9	327.97	76.44	-2.17	12.66	0.00	0.90	1.00	68.80	-1.95	12.66	0.00	Vehicle	Vehicle	575.42	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.92**	**6.53**	-----	-----
		U_{11} - L_{10}	349.27	79.04	-11.15	12.70	0.00	0.90	1.00	71.14	-10.03	12.70	0.00	Vehicle	Vehicle	608.18	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.18**	**6.96**	-----	-----
		U_{12} - L_{11}	358.20	74.83	-11.74	13.52	0.00	0.90	1.00	67.34	-10.57	13.52	0.00	Vehicle	Vehicle	611.56	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.33**	**7.22**	-----	-----
		U_{13} - L_{12}	307.76	64.95	-23.74	12.26	-0.24	0.90	1.00	58.46	-21.36	12.26	-0.24	Vehicle	Vehicle	526.74	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.82**	**8.04**	-----	-----
		U_{14} - L_{13}	260.25	53.92	-20.11	11.73	-1.50	0.90	1.00	48.53	-18.10	11.73	-1.50	Vehicle	Vehicle	443.48	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**6.40**	**10.66**	-----	-----
		U_{15} - L_{15}	208.41	57.59	-16.43	11.04	-2.52	0.90	1.00	51.83	-14.79	11.04	-2.52	Vehicle	Vehicle	383.24	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.12**	**8.53**	-----	-----
		U_{16} - L_{16}	243.53	70.59	-13.57	11.54	-1.48	0.90	1.00	63.53	-12.21	11.54	-1.48	Vehicle	Vehicle	454.24	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.84**	**6.41**	-----	-----
		U_{17} - L_{17}	255.83	70.44	-10.47	12.23	-0.85	0.90	1.00	63.40	-9.42	12.23	-0.85	Vehicle	Vehicle	469.93	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**4.30**	**7.17**	-----	-----
		U_{18} - L_{18}	235.25	70.80	-10.75	11.35	-0.75	0.90	1.00	63.72	-9.68	11.35	-0.75	Vehicle	Vehicle	443.89	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.91**	**6.52**	-----	-----
		U_{19} - L_{19}	212.06	62.59	-9.31	11.09	0.00	0.90	1.00	56.33	-8.38	11.09	0.00	Vehicle	Vehicle	397.73	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.67**	**7.79**	-----	-----
		U_{20} - L_{20}	168.18	54.96	-10.04	9.14	0.00	0.90	1.00	49.46	-9.03	9.14	0.00	Vehicle	Vehicle	325.81	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**5.28**	**8.80**	-----	-----
	Structure 2	U_{21} - L_{21}	97.21	27.18	-6.76	6.66	0.00	0.90	1.00	24.46	-6.08	6.66	0.00	Vehicle	Vehicle	179.37	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.11**	**13.51**	-----	-----
		U_{21} - L_{22}	30.55	17.84	-9.15	3.66	-2.18	0.90	1.00	16.05	-8.23	3.66	-2.18	Vehicle	Vehicle	74.50	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**14.84**	**24.74**	-----	-----
		U_{23} - L_{22}	49.81	29.99	-5.64	5.11	-0.95	0.90	1.00	26.99	-5.07	5.11	-0.95	Vehicle	Vehicle	123.24	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.40**	**14.00**	-----	-----
		U_{24} - L_{23}	115.09	39.32	-6.33	8.00	-0.72	0.90	1.00	35.39	-5.70	8.00	-0.72	Vehicle	Vehicle	226.29	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.30**	**8.83**	-----	-----
		U_{25} - L_{24}	179.20	69.73	-10.69	10.10	-0.73	0.90	1.00	62.76	-9.62	10.10	-0.73	Vehicle	Vehicle	368.94	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**4.05**	**6.76**	-----	-----
		U_{26} - L_{25}	220.95	72.69	-10.26	11.89	-0.57	0.90	1.00	65.42	-9.23	11.89	-0.57	Vehicle	Vehicle	428.97	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.94**	**6.57**	-----	-----
		U_{27} - L_{26}	234.79	68.30	-18.34	11.44	-0.35	0.90	1.00	61.47	-16.50	11.44	-0.35	Vehicle	Vehicle	438.40	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.06**	**6.77**	-----	-----
		U_{28} - L_{27}	253.01	64.33	-18.32	12.25	-0.28	0.90	1.00	57.89	-16.49	12.25	-0.28	Vehicle	Vehicle	454.35	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**4.74**	**7.90**	-----	-----
		U_{29} - L_{28}	215.83	54.66	-32.24	10.20	0.00	0.90	1.00	49.19	-29.02	10.20	0.00	Vehicle	Vehicle	387.17	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.30**	**8.84**	-----	-----
		U_{30} - L_{29}	179.92	43.17	-27.25	8.89	-0.93	0.90	1.00	38.85	-24.52	8.89	-0.93	Vehicle	Vehicle	318.08	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**7.27**	**12.12**	-----	-----
		U_{31} - L_{31}	294.37	62.77	-13.01	12.88	-1.65	0.90	1.00	56.49	-11.71	12.88	-1.65	Vehicle	Vehicle	505.07	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.13**	**8.55**	-----	-----
		U_{32} - L_{32}	342.78	71.75	-11.62	13.71	-0.55	0.90	1.00	64.57	-10.45	13.71	-0.55	Vehicle	Vehicle	585.52	-----	0.00	30.63	30.6305	1010.81	131.71	17.8750	2.8427	56.59	29.95	-779.87	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.04**	**6.73**	-----	-----
		U_{33} - L_{33}	363.31	73.84	-5.91	14.15	0.00	0.90	1.00	66.46	-5.32	14.15	0.00	Vehicle	Vehicle	616.29	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.34**	**7.24**	-----	-----
		U_{34} - L_{34}

Axial - Al2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1998

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Min) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	U_0-L_1	-131.25	-22.60	0.00	1.71	-2.28	-4.82	0.00	0.00	0.00	0.00
	L_1-L_2	-54.49	-51.15	0.28	3.04	-1.45	-9.18	0.00	0.00	0.00	0.00
	L_2-L_3	-54.49	-44.72	0.28	2.61	-4.87	-8.38	0.00	0.00	0.00	0.00
	L_3-L_4	-52.26	-51.06	2.75	4.32	-5.82	-12.57	0.00	0.00	0.00	0.00
	L_4-L_5	-28.29	-50.99	3.03	2.77	-5.42	-10.47	0.00	0.00	0.00	0.00
	L_5-U_5	38.79	42.53	3.95	5.82	0.99	-2.32	0.00	0.00	0.00	0.00
	U_5-U_6	2.32	34.13	3.69	5.82	0.99	-2.32	0.00	0.00	0.00	0.00
	U_6-L_6	68.54	43.95	1.94	2.86	-3.30	-7.74	0.00	0.00	0.00	0.00
	L_6-L_7	100.48	-176.70	2.99	2.53	2.11	-8.66	0.00	0.00	0.00	0.00
	L_7-L_8	100.48	-160.14	2.99	2.53	2.11	-8.66	0.00	0.00	0.00	0.00
	L_8-L_9	-56.66	-218.08	2.73	1.60	-1.26	-5.88	0.00	0.00	0.00	0.00
	L_9-L_{10}	-56.66	-173.90	2.73	1.60	-1.26	-5.88	0.00	0.00	0.00	0.00
	L_{10}-L_{11}	-287.80	-237.44	2.40	1.38	-23.80	-7.53	0.00	0.00	0.00	0.00
	L_{11}-L_{12}	-196.20	-337.71	2.33	0.16	-6.26	-7.42	0.00	0.00	0.00	0.00
	L_{12}-L_{13}	-295.83	-154.75	0.89	-0.17	-13.06	-3.68	0.00	0.00	0.00	0.00
	L_{13}-L_{14}	-189.93	-29.96	0.76	-0.71	-7.45	-2.51	0.00	0.00	0.00	0.00
	L_{14}-U_{14}	-179.63	-39.55	0.89	-0.37	-7.75	-2.22	0.00	0.00	0.00	0.00
	U_{14}-U_{15}	-249.78	258.69	0.52	-0.36	-8.61	-1.62	0.00	0.00	0.00	0.00
	U_{15}-L_{15}	-28.62	-172.11	-0.52	1.66	-1.15	-8.35	0.00	0.00	0.00	0.00
	L_{15}-L_{16}	-24.91	-195.34	-0.31	1.56	0.07	-8.72	0.00	0.00	0.00	0.00
	L_{16}-L_{17}	-53.03	-283.30	-0.66	2.32	-0.09	-12.64	0.00	0.00	0.00	0.00
	L_{17}-L_{18}	-53.03	-239.12	-0.66	2.32	-0.09	-11.02	0.00	0.00	0.00	0.00
	L_{18}-U_{18}	-360.46	-389.97	0.35	3.82	-7.67	-18.83	0.00	0.00	0.00	0.00
	U_{18}-L_{19}	-403.42	-276.89	2.89	7.14	-3.68	-12.72	0.00	0.00	0.00	0.00
	L_{19}-L_{20}	-349.63	-209.87	5.22	5.06	-13.49	-31.12	0.00	0.00	0.00	0.00
	L_{20}-L_{21}	-253.78	-280.71	4.01	5.58	-31.78	-12.15	0.00	0.00	0.00	0.00
	L_{21}-L_{22}	-237.02	-39.51	5.81	7.26	-18.60	-4.06	0.00	0.00	0.00	0.00
	L_{22}-U_{22}	-237.02	-39.51	5.81	7.26	-18.60	-4.06	0.00	0.00	0.00	0.00
	U_{22}-L_{23}	-152.08	38.80	5.81	7.26	-17.07	-3.05	0.00	0.00	0.00	0.00
	L_{23}-L_{24}	-116.69	170.75	6.17	4.93	-12.35	-2.22	0.00	0.00	0.00	0.00
	L_{24}-U_{24}	-116.69	131.71	6.17	4.93	-12.35	-2.22	0.00	0.00	0.00	0.00
	U_{24}-L_{25}	-211.04	-121.68	11.93	4.87	-3.20	3.01	0.00	0.00	0.00	0.00
	L_{25}-L_{26}	-1028.71	-26.69	-62.82	-6.24	-0.76	2.24	0.00	0.00	0.00	0.00
	L_{26}-L_{27}	-1028.71	1.94	-62.82	-6.24	-0.76	2.24	0.00	0.00	0.00	0.00
	L_{27}-U_{27}	-271.38	25.19	2.61	4.32	3.35	-6.07	0.00	0.00	0.00	0.00
	U_{27}-L_{28}	-271.38	25.19	2.61	4.32	3.35	-6.07	0.00	0.00	0.00	0.00
	L_{28}-L_{29}	-196.55	-8.67	4.09	5.52	2.41	-8.99	0.00	0.00	0.00	0.00
	L_{29}-L_{30}	-48.55	11.41	4.94	4.84	-2.66	-8.37	0.00	0.00	0.00	0.00
	L_{30}-U_{30}	-48.55	11.41	4.94	4.84	-2.66	-8.37	0.00	0.00	0.00	0.00
Structure 2	U_{30}-L_{31}	-92.57	-65.85	4.49	5.49	-8.95	-23.81	0.00	0.00	0.00	0.00
	L_{31}-L_{32}	-58.44	-91.34	4.49	5.49	-8.95	-23.81	0.00	0.00	0.00	0.00
	L_{32}-L_{33}	-48.31	-31.52	4.42	4.11	-7.90	-6.04	0.00	0.00	0.00	0.00
	L_{33}-L_{34}	-10.77	-13.62	4.81	3.33	-8.11	2.34	0.00	0.00	0.00	0.00
	L_{34}-U_{34}	57.22	-122.85	5.08	2.14	-8.86	3.62	0.00	0.00	0.00	0.00
	U_{34}-L_{35}	54.65	23.13	-0.73	-95.71	39.07	0.00	0.00	0.00	0.00	0.00
	L_{35}-L_{36}	36.17	23.13	-0.73	-95.71	39.07	0.00	0.00	0.00	0.00	0.00
	L_{36}-U_{36}	85.41	4.86	-4.37	1.29	-2.04	-0.09	0.00	0.00	0.00	0.00
	U_{36}-L_{37}	13.52	806.37	0.00	-78.16	0.00	0.00	0.00	0.00	0.00	0.00
	L_{37}-L_{38}	821.42	-89.58	41.12	-9.09	0.00	0.00	0.00	0.00	0.00	0.00
	L_{38}-U_{38}	25.52	8.40	-2.15	0.41	-1.41	0.00	0.00	0.00	0.00	0.00
	U_{38}-L_{39}	145.61	-52.49	4.22	5.31	3.06	-9.94	0.00	0.00	0.00	0.00
	L_{39}-L_{40}	17.52	-88.46	5.56	5.93	-1.13	-9.73	0.00	0.00	0.00	0.00
	L_{40}-U_{40}	-25.52	-81.60	5.56	5.93	-1.13	-9.73	0.00	0.00	0.00	0.00
	U_{40}-L_{41}	-75.13	-230.47	5.88	3.71	-4.07	-11.47	0.00	0.00	0.00	0.00
	L_{41}-L_{42}	-28.03	-111.43	5.88	3.71	-4.07	-11.47	0.00	0.00	0.00	0.00
	L_{42}-U_{42}	-84.17	-278.54	6.74	5.07	-28.82	-12.75	0.00	0.00	0.00	0.00
	U_{42}-L_{43}	-274.89	-311.87	5.78	5.63	-21.38	-10.75	0.00	0.00	0.00	0.00
	L_{43}-L_{44}	-274.89	-274.55	5.63	21.38	-10.75	0.00	0.00	0.00	0.00	0.00
	L_{44}-U_{44}	-296.96	-269.01	2.23	0.34	-14.20	-7.65	0.00	0.00	0.00	0.00
	U_{44}-L_{45}	-154.33	-34.80	1.49	-0.35	-9.65	-2.22	0.00	0.00	0.00	0.00
	L_{45}-L_{46}	-154.33	-34.80	1.49	-0.35	-9.65	-2.22	0.00	0.00	0.00	0.00
	L_{46}-U_{46}	-296.96	-269.01	2.23	0.34	-14.20	-7.65	0.00	0.00	0.00	0.00
	U_{46}-L_{47}	40.05	-167.61	0.46	0.44	-1.54	-5.28	0.00	0.00	0.00	0.00
	L_{47}-L_{48}	-10.43	-132.23	-0.36	0.57	2.23	-7.13	0.00	0.00	0.00	0.00
	L_{48}-U_{48}	-10.43	-132.23	-0.36	0.57	2.23	-7.13	0.00	0.00	0.00	0.00
	U_{48}-L_{49}	-140.08	-260.72	-0.15	0.52	-3.29	-9.36	0.00	0.00	0.00	0.00
	L_{49}-L_{50}	-187.01	-275.87	1.31	1.82	-7.97	-24.57	0.00	0.00	0.00	0.00
	L_{50}-U_{50}	-187.01	-275.87	1.31	1.82	-7.97	-24.57	0.00	0.00	0.00	0.00
Structure 3	U_{50}-L_{51}	-322.39	-140.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{51}-L_{52}	-162.57	-104.84	0.99	2.86	-6.91	-3.51	0.00	0.00	0.00	0.00
	L_{52}-U_{52}	-162.57	-104.84	0.99	2.86	-6.91	-3.51	0.00	0.00	0.00	0.00
	U_{52}-L_{53}	-147.74	26.71	2.17	3.39	-11.92	-9.56	0.00	0.00	0.00	0.00
	L_{53}-L_{54}	-130.72	61.91	2.49	3.39	-11.92	-9.56	0.00	0.00	0.00	0.00
	L_{54}-U_{54}	-130.72	61.91	2.49	3.39	-11.92	-9.56	0.00	0.00	0.00	0.00
	U_{54}-L_{55}	10.81	46.01	3.10	1.72	-5.45	1.94	0.00	0.00	0.00	0.00
	L_{55}-L_{56}	10.81	46.01	3.10	1.72	-5.45	1.94	0.00	0.00	0.00	0.00
	L_{56}-U_{56}	-426.14	9.08	-19.67	-6.13	0.00	0.00	0.00	0.00	0.00	0.00
	U_{56}-L_{57}	-426.14	9.08	-19.67	-6.13	0.00	0.00	0.00	0.00	0.00	0.00
	L_{57}-L_{58}	128.06	54.05	4.12	3.74	1.82	-5.50	0.00	0.00	0.00	0.00
	L_{58}-U_{58}	70.11	43.65	4.50	3.27	-3.47	-13.13	0.00	0.00	0.00	0.00
	U_{58}-L_{59}	-322.39	-140.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{59}-L_{60}	-162.57	-104.84	0.99	2.86	-6.91	-3.51	0.00	0.00	0.00	0.00
	L_{60}-U_{60}	-147.74	26.71	2.17	3.39	-11.92	-9.56	0.00	0.00	0.00	0.00
	U_{60}-L_{61}	-130.72	61.91	2.49	3.39	-11.92	-9.56	0.00	0.00	0.00	0.00
	L_{61}-L_{62}	10.81	46.01	3.10	1.72	-5.45	1.94	0.00	0.00	0.00	0.00
	L_{62}-U_{62}	-426.14	9.08	-19.67	-6.13	0.00	0.00	0.00	0.00	0.00	0.00
	U_{62}-L_{63}	128.06	54.05	4.12	3.74	1.82	-5.50	0.00	0.00	0.00	0.00
	L_{63}-L_{64}	70.11	43.65	4.50	3.27	-3.47	-13.13	0.00	0.00	0.00	0.00
	L_{64}-U_{64}	-8.37	-30.47	2.66	0.63	9.08	10.90	0.00	0.00	0.00	0.00

YY Axis Moments from STAAD

Location	Member	Max. Pos. Mom. Start (k-in)	Max. Pos. Mom. End (k-in)	S_{bb} (in^3)	S_{tb} (in^3)	Z_x (in^3)	I (in^4)	I_{yy} (in^4)	Shape Factor f	M_p (k-in)	Formula 1.8 Term * F$_y$/S$_{xx}$	M_y (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor $C_{m(x)}$	Equivalent Mom. Factor $C_{m(y)}$
Structure 1	U_0-L_1	-170.64	10.70	-226.29	-142.05	90.2	90.24	72.24	1.247	1328.6	1.41	4206	0.99800041	2974.3	0.629	0.85	0.85
	L_1-L_2	-64.33	4.74	-104.77	-281.38	90.2	90.24	72.24	1.247	1328.6	1.41	4206	0.99800041	2974.3	0.372	0.75	0.75
	L_2-L_3	-102.22	69.29	-296.37	-91.17	90.2	90.24	76.71	1.247	1328.6	1.41	4206	0.99800041	2974.3	0.309	0.72	0.72
	L_3-L_4	-3.57	180.41	-204.13	-214.70	90.2	90.24	72.24	1.247	1328.6	1.41	4206	0.99800041	2974.3	0.951	0.98	0.98
	L_4-L_5	34.11	68.29	-122.79	-20.16	90.2	90.24	72.24	1.247	1328.6	1.41	4206	0.99800041	2974.3	0.342	0.74	0.74
	L_5-U_5	86.81	281.07	-133.31	21.93	90.2	90.24	76.71	1.247	1328.6	1.41	4206	0.99800041	2974.3	0.309	0.72	0.72
	U_5-U_6	211.98	118.87	28.13	22.34	77.1	97.11	78.18	1.242	1356.56	2586	1649.1	1.41	4704	0.99800041	3201.5	0.941	0.92
	U_6-L_6	4.96	-23.70	-29.02	-23.27	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_6-L_7	-49.29	7.18	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_7-L_8	-24.44	-11.91	2.92	67.29	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_8-L_9	-13.07	2.44	12.78	7.87	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_9-L_{10}	-13.07	2.44	12.78	7.87	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{10}-L_{11}	-13.26	-3.83	89.88	34.85	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{11}-L_{12}	-10.91	7.81	67.85	-15.40	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{12}-L_{13}	-6.83	2.01	89.32	-23.41	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{13}-L_{14}	-9.35	1.57	79.78	2.19	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{14}-U_{14}	-27.45	0.49	-98.98	-14.94	46.38	104.6	104.75	86.43	156.53	2559	1554.3	1.44	4971	0.99800042	3452.8	0.772	0.94
	U_{14}-U_{15}	-312.54	327.89	0.38	37.37	686.48	104.8	104.75	86.43	156.53	2589	1554.3	1.44	4971	0.99800042	3452.8	0.784	0.29
	U_{15}-L_{15}	-49.44	-185.00	-64.02	-419.16	127.8	127.83	111.16	118.51	2762	1538.8	1.42	5891	0.99801332	4212.5	0.153	0.66	0.66
	L_{15}-L_{16}	-39.73	-217.66	-3.26	-437.70	127.8	127.83	111.16	118.51	2762	1538.8	1.42	5891	0.99801332	4212.5	0.133	0.64	0.64
	L_{16}-L_{17}	-84.36	-314.04	-79.82	-663.94	212.9	212.93	170.43	297.57	4967	2491.6	1.40	9920	0.99857	7005.5	0.107	0.64	0.64
	L_{17}-L_{18}	-84.36	-314.04	-79.82	-663.94	212.9	212.93	170.43	297.57	4967	2491.6	1.40	9920	0.99857	7005.5	0.107	0.64	0.64
	L_{18}-U_{18}	-460.48	-417.47	-648.05	-947.53	251.7	251.73	219.41	365.62	7161	3870.6	1.45	12066	0.99859	8298.1	0.684	0.87	0.87
	U_{18}-L_{19}	-460.48	-417.47	-648.05	-947.53	251.7	251.73	219.41	365.62	7161	3870.6	1.45	12066	0.99859	8298.1	0.684	0.87	0.87
	L_{19}-L_{20}	-403.42	-276.89	-644.58	-1028.71	251.7	251.73	219.41	365.62	7161	3870.6	1.45	12066	0.99859	8298.1	0.684	0.87	0.87
	L_{20}-L_{21}	-349.63	-209.87	-522.00	-1028.71	251.7	251.73	219.41	365.62	7161	3870.6	1.45	12066	0.99859	8298.1	0.684	0.87	0.87
	L_{21}-L_{22}	-253.78	-280.71	-431.1	-1073.48	-649.18	232.7	232.70	195.45	340.10	6520	3217.6	1.46	11223	0.99859	7670.6	0.605	0.94
	L_{22}-L_{23}	-237.02	-39.51	-525.77	-1073.48	-649.18	232.7	232.70	195.45	340.10	6520	3217.6	1.46	11223	0.99859	7670.6	0.605	0.94
	L_{23}-L_{24}	-237.02	-39.51	-581.7	-726.26	-168.89	232.7	232.70	195.45	340.10	6520	3217.6	1.46	11223	0.99859	7670.6	0.717	0.91
	L_{24}-U_{24}	-116.69	131.71	-62.73	-78.42	-200.87	-43.83	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	U_{24}-L_{25}	-211.04	-121.68	-72.17	-747.16	-127.05	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{25}-L_{26}	-1028.71	1.94	-440.82	-67.44	-8.37	24.22	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{26}-L_{27}	-271.38	25.19	2.61	4.32	3.35	-6.07	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{27}-L_{28}	-196.55	-8.67	4.09	5.52	2.41	-8.99	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{28}-L_{29}	-48.55	11.41	4.94	4.84	-2.66	-8.37	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{29}-L_{30}	-48.55	11.41	4.94	4.84	-2.66	-8.37	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Structure 2	L_{30}-U_{30}	-92.57	-65.85	4.49	5.49	-8.95	-23.81	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	U_{30}-L_{31}	-58.44	-91.34	4.49	5.49	-8.95	-23.81	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{31}-L_{32}	-48.31	-31.52	4.42	4.11	-7.90	-6.04	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{32}-L_{33}	-10.77	-13.62	4.81	3.33	-8.11	2.34	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{33}-L_{34}	57.22	-122.85	5.08	2.14	-8.86	3.62	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{34}-L_{35}	54.65	23.13	-0.73	-95.71	39.07	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{35}-L_{36}	36.17	23.13	-0.73	-95.71	39.07	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{36}-U_{36}	85.41	4.86	-4.37	1.29	-2.04	-0.09	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	U_{36}-L_{37}	13.52	806.37	0.00	-78.16	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{37}-L_{38}	821.42	-89.58	41.12	-9.09	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{38}-U_{38}	25.52	8.40	-2.15	0.41	-1.41	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	U_{38}-L_{39}	145.61	-52.49	4.22	5.31	3.06	-9.94	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{39}-L_{40}	17.52	-88.46	5.56	5.93	-1.13	-9.73	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{40}-U_{40}	-25.52	-81.60	5.56	5.93	-1.13	-9.73	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	U_{40}-L_{41}	-75.13	-230.47	5.88	3.71	-4.07	-11.47	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{41}-L_{42}	-28.03	-111.43	5.88	3.71	-4.07	-11.47	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{42}-U_{42}	-84.17	-278.54	6.74	5.07	-28.82	-12.75	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	U_{42}-L_{43}	-274.89	-311.87	5.78	5.63	-21.38	-10.75	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{43}-L_{44}	-274.89	-274.55	5.63	21.38	-10.75	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{44}-U_{44}	-296.96	-269.01	2.23	0.34	-14.20	-7.65	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	U_{44}-L_{45}	-154.33	-34.80	1.49	-0.35	-9.65	-2.22	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{45}-L_{46}	-154.33	-34.80	1.49	-0.35	-9.65	-2.22	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{46}-U_{46}	-296.96	-269.01	2.23	0.34	-14.20	-7.65	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	U_{46}-L_{47}	40.05	-167.61	0.46	0.44	-1.54	-5.28	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{47}-L_{48}	-10.43	-132.23	-0.36	0.57	2.23	-7.13	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{48}-U_{48}	-10.43	-132.23	-0.36	0.57	2.23	-7.13	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	U_{48}-L_{49}	-140.08	-260.72	-0.15	0.52	-3.29	-9.36	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{49}-L_{50}	-187.01	-275.87	1.31	1.82	-7.97	-24.57	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{50}-U_{50}	-187.01	-275.87	1.31	1.82	-7.97	-24.57	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Structure 3	U_{50}-L_{51}	-322.39	-140.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{51}-L_{52}	-162.57	-104.84	0.99	2.86	-6.91	-3.51	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	L_{52}-U_{52}	-162.57	-104.84

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.60

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
Section Loss for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

Maximum Axial with Moment Interaction Check

M_2 Information | **M_3 Information**

| Location | Member | ZZ Axis Moments from STAAD: Dead Load Start-I(k-ft) | Dead Load End-J(k-ft) | Live Load (Max) Start-I(k-ft) | Live Load (Max) End-J(k-ft) | Pedestrian Load (Max) Start-I(k-ft) | Pedestrian Load (Min) End-J(k-ft) | Lane Reduction & Impact Live Load Max Start-I(k-ft) | Lane Reduction & Impact Live Load Max End-J(k-ft) | Impact Pedestrian Load Max Start-I(k-ft) | Impact Pedestrian Load Max End-J(k-ft) | Max. Pos. Mom. Start-I(k-ft) | Max. Pos. Mom. End-J(k-ft) | Max. Neg. Mom. Start-I(k-ft) | Max. Neg. Mom. End-J(k-ft) | YY Axis Moments from STAAD: Dead Load Start-I(k-ft) | Dead Load End-J(k-ft) | Live Load (Max) Start-I(k-ft) | Live Load (Max) End-J(k-ft) | Pedestrian Load (Max) Start-I(k-ft) | Pedestrian Load (Min) End-J(k-ft) | Lane Reduction & Impact Live Load Max Start-I(k-ft) | Lane Reduction & Impact Live Load Max End-J(k-ft) | Impact Pedestrian Load Max Start-I(k-ft) | Impact Pedestrian Load Max End-J(k-ft) | Max. Pos. Mom. Start-I(k-ft) | Max. Pos. Mom. End-J(k-ft) | Max. Neg. Mom. Start-I(k-ft) | Max. Neg. Mom. End-J(k-ft) | Tension: L_d (in) | L_{eff} (in) | Shape Factor | M_p (k-in) | Formula 1.8 Term * F'c/S_{bc} | M_d (k-in) | Equivalent Mom. Factor: a | $C_{m(a)}$ | $C_{m(b)}$ | Axial Actions | Moment Actions | Total | Pass | Compression: r_x (in) | L_{eff} (in) | Formula 1.8 Term * F'c/S_{bc} | M_d (k-in) | Equivalent Mom. Factor: a | $C_{m(a)}$ | $C_{m(b)}$ | Axial Actions | Moment Actions | Total | Pass |
|---|---|---|---

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.33	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information | M_3 Information

ZZ Axis Moments from STAAD | Max. Neg. Mom. | Max. Pos. Mom. | YY Axis Moments from STAAD | Max. Pos. Mom. | Max. Neg. Mom. | Tension | Compression

| Location | Member | Dead Load Start (k-ft) | Dead Load End (k-ft) | Live Load (Max) Start (k-ft) | Live Load (Max) End (k-ft) | Pedestrian Load (Max) (k-ft) | Pedestrian Load (Min) (k-ft) | Lane Reduction & Impact Live Load Start (k-ft) | Lane Reduction & Impact Live Load End (k-ft) | Impact Pedestrian Load Max Start (k-ft) | Impact Pedestrian Load Max End (k-ft) | Start (k-ft) | End (k-ft) | S_{top} (in^3) | S_b (in^3) | S_z (in^3) | J (in^4) | I_{xx} (in^4) | Shape Factor | M_p (k-in) | Formula 1.8 Term * F$_y$/S_{top} | M_r (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor $C_{m(x)}$ | Equivalent Mom. Factor $C_{m(y)}$ | Dead Load Start (k-ft) | Dead Load End (k-ft) | Live Load (Max) Start (k-ft) | Live Load (Max) End (k-ft) | Pedestrian Load (Max) (k-ft) | Pedestrian Load (Min) (k-ft) | Lane Reduction & Impact Live Load Start (k-ft) | Lane Reduction & Impact Live Load End (k-ft) | Impact Pedestrian Load Max Start (k-ft) | Impact Pedestrian Load Max End (k-ft) | Start (k-ft) | End (k-ft) | S_{top} (in^3) | S_b (in^3) | S_z (in^3) | I_{yy} (in^4) | Shape Factor | M_p (k-in) | P_{max} (k) | Formula 1.8 Term * F$_y$/S_{top} | M_r (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor $C_{m(x)}$ | Equivalent Mom. Factor $C_{m(y)}$ | Pass | Axial Actual | Moment Primary | Total | Pass | Axial Actual | Moment Primary | Total | Pass | Axial Actual | Moment Primary | Total | Pass |
|---|---|---|---

Axial - Al2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	U_1-L_1	-23.63	-7.60	-1.15	0.77	0.52	-0.25	-12.45	8.26	3.40	-2.70
	U_1-L_2	-3.36	-8.44	-0.95	0.22	0.40	-0.15	-10.30	2.33	4.32	-1.64
	U_1-L_3	2.50	-9.71	-1.80	0.55	0.55	-0.17	-10.91	1.08	5.89	-1.81
	U_1-U_2	7.94	-13.41	-0.82	-0.97	0.01	-0.41	-8.80	-10.49	0.08	-4.46
	L_1-U_2	-14.57	18.47	-1.27	0.33	0.04	-0.00	-48.96	32.81	0.00	0.00
	L_1-L_2	-37.80	77.38	-2.14	3.27	0.00	0.00	-69.19	177.02	-49.14	100.60
	L_2-U_2	73.38	19.46	-2.12	3.33	0.00	0.00	-82.47	98.95	38.71	1.60
	L_2-L_3	-9.33	102.64	-1.63	3.44	0.34	0.17	-17.97	37.17	3.67	1.79
	L_3-U_3	-5.01	118.90	0.47	3.64	0.37	-0.15	0.00	29.26	4.02	-1.59
	U_3-L_3	-78.82	74.40	-2.29	2.95	0.35	-0.11	-24.78	31.81	3.74	-1.14
	U_3-L_4	-64.28	73.58	-1.56	2.43	0.26	0.07	-16.85	28.29	3.86	0.75
	U_3-U_4	-39.78	29.03	-1.28	1.26	0.00	0.00	-24.00	29.09	3.50	1.48
	L_4-U_4	-65.20	48.77	-2.26	2.10	0.12	0.04	-24.40	22.71	1.30	0.41
	L_4-L_5	-24.89	8.62	-1.44	0.36	0.00	0.00	-15.60	3.93	0.00	0.00
	U_4-L_5	-0.81	-22.03	-0.96	0.00	0.00	0.00	-22.07	-40.46	0.21	-2.10
	L_5-U_5	-25.30	9.99	-1.47	1.00	0.37	-0.33	-15.89	10.84	4.03	-3.52
	U_5-L_5	-37.00	20.09	-2.28	1.40	0.37	-0.33	-22.49	13.77	3.91	-3.53
	U_5-L_6	-101.98	74.35	-3.64	3.15	0.50	-0.50	-39.31	34.03	5.44	-5.39
	L_6-U_6	-115.65	79.79	-4.17	3.22	0.40	-0.40	-45.05	34.51	4.49	-4.49
	U_6-L_6	-76.53	79.74	-1.43	2.50	0.11	-0.25	-15.41	26.99	1.14	-2.73
	U_6-L_7	-109.78	99.44	-4.01	3.75	0.67	-0.68	-43.35	40.47	7.20	-7.37
	L_7-U_7	-99.86	79.41	-3.61	3.00	0.71	-0.71	-40.68	24.10	8.74	-7.69
	U_7-L_7	-90.94	71.81	-3.83	3.06	0.93	-0.79	-41.34	33.00	10.04	-8.58
	U_7-L_8	-68.37	53.38	-2.42	2.23	1.72	-1.65	-24.13	17.64	18.04	-16.18
	L_8-U_8	-20.34	9.87	-1.76	1.28	0.63	-0.54	-18.96	-13.85	6.76	-5.80
	U_8-L_8	-3.38	-11.20	-1.38	0.51	0.00	0.00	-14.66	-31.12	1.62	-0.41
	L_8-L_9	6.85	-23.86	-1.04	-0.29	0.19	-0.67	-11.28	-3.10	2.05	7.25
	U_8-L_9	-44.40	35.30	-2.11	0.30	0.00	0.00	-22.73	3.25	0.00	0.00
	L_9-U_9	-96.54	69.68	-3.80	2.64	0.13	-0.13	-41.70	23.76	0.00	0.00
	U_9-L_9	-85.37	67.20	-3.98	2.19	0.00	0.00	-42.98	23.63	0.00	0.00
	L_9-L_{10}	-39.77	33.38	-2.42	1.07	0.00	0.00	-46.66	31.67	0.00	0.00
	U_9-L_{10}	-109.81	116.32	-4.20	4.38	0.47	0.11	-45.39	47.25	5.12	1.22
	L_{10}-U_{10}	-141.94	130.59	-5.79	5.00	0.99	-0.56	-62.55	54.01	10.71	-6.07
	U_{10}-L_{10}	-96.37	133.38	-2.42	4.76	0.10	0.25	-16.65	54.01	1.07	6.25
	L_{10}-L_{11}	-11.95	79.18	-1.21	3.64	0.95	-0.82	-13.10	29.36	10.25	-8.83
	U_{10}-L_{11}	-77.25	77.25	-4.20	4.20	0.00	0.00	-46.97	44.66	12.04	-10.82
	L_{11}-U_{11}	-66.17	89.96	-4.28	5.00	0.94	-0.72	-46.22	53.95	10.16	-7.77
	U_{11}-L_{11}	-96.55	96.55	-4.28	4.28	0.00	0.00	-46.25	46.25	8.23	8.23
	L_{11}-L_{12}	-56.05	72.58	-3.19	2.69	0.77	-0.26	-34.46	29.01	8.28	3.44
	U_{11}-L_{12}	-31.83	37.59	-2.46	1.85	0.46	-0.13	-26.35	20.00	4.99	-1.35
	L_{12}-U_{12}	-10.04	3.78	-1.38	-0.01	0.19	0.04	-14.88	-9.12	2.07	0.39
	U_{12}-L_{12}	-8.78	2.44	-1.38	-0.01	0.19	0.04	-12.17	-7.46	2.07	0.39
	L_{12}-L_{13}	-19.42	19.66	-1.56	1.10	-0.02	-0.12	-16.65	11.86	-6.18	-1.24
	U_{12}-L_{13}	-46.37	53.38	-2.42	2.42	0.00	0.00	-27.75	31.97	1.46	1.46
	L_{13}-U_{13}	-46.48	58.24	-3.60	3.03	0.76	0.13	-38.83	32.77	6.23	1.38
	U_{13}-L_{13}	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	L_{13}-L_{14}	-69.31	71.94	-5.24	4.91	0.75	-0.64	-56.59	53.00	8.13	-6.87
	U_{13}-L_{14}	-77.89	79.74	-5.24	4.30	0.19	-0.19	-56.59	53.00	2.03	-2.03
	L_{14}-U_{14}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	U_{14}-L_{14}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	L_{14}-L_{15}	-76.52	55.14	-3.80	2.57	0.15	0.14	-41.00	27.79	1.63	1.49
	U_{14}-L_{15}	-39.14	39.91	-2.37	2.37	0.00	0.00	-23.66	23.66	0.00	0.00
	L_{15}-U_{15}	-6.27	-17.63	0.00	0.00	0.31	-0.78	0.00	0.00	-8.13	0.00
	U_{15}-L_{15}	-1.05	-9.86	-1.10	0.42	0.67	-0.50	-11.69	4.48	7.19	-5.41
	L_{15}-L_{16}	-8.78	2.44	-1.38	-0.01	0.19	0.04	-12.17	-7.46	2.07	0.39
	U_{15}-L_{16}	-19.42	19.66	-1.56	1.10	-0.02	-0.12	-16.65	11.86	-6.18	-1.24
	L_{16}-U_{16}	-46.48	58.24	-3.60	3.03	0.76	0.13	-38.83	32.77	6.23	1.38
	U_{16}-L_{16}	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	L_{16}-L_{17}	-69.31	71.94	-5.24	4.91	0.75	-0.64	-56.59	53.00	8.13	-6.87
	U_{16}-L_{17}	-77.89	79.74	-5.24	4.30	0.19	-0.19	-56.59	53.00	2.03	-2.03
	L_{17}-U_{17}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	U_{17}-L_{17}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	L_{17}-L_{18}	-76.52	55.14	-3.80	2.57	0.15	0.14	-41.00	27.79	1.63	1.49
	U_{17}-L_{18}	-39.14	39.91	-2.37	2.37	0.00	0.00	-23.66	23.66	0.00	0.00
	L_{18}-U_{18}	-6.27	-17.63	0.00	0.00	-3.11	-0.78	0.00	0.00	-8.13	0.00
	U_{18}-L_{18}	-1.05	-9.86	-1.10	0.42	0.67	-0.50	-11.69	4.48	7.19	-5.41
Structure 2	L_{18}-L_{19}	-8.78	2.44	-1.38	-0.01	0.19	0.04	-12.17	-7.46	2.07	0.39
	U_{18}-L_{19}	-19.42	19.66	-1.56	1.10	-0.02	-0.12	-16.65	11.86	-6.18	-1.24
	L_{19}-U_{19}	-46.48	58.24	-3.60	3.03	0.76	0.13	-38.83	32.77	6.23	1.38
	U_{19}-L_{19}	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	L_{19}-L_{20}	-69.31	71.94	-5.24	4.91	0.75	-0.64	-56.59	53.00	8.13	-6.87
	U_{19}-L_{20}	-77.89	79.74	-5.24	4.30	0.19	-0.19	-56.59	53.00	2.03	-2.03
	L_{20}-U_{20}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	U_{20}-L_{20}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	L_{20}-L_{21}	-76.52	55.14	-3.80	2.57	0.15	0.14	-41.00	27.79	1.63	1.49
	U_{20}-L_{21}	-39.14	39.91	-2.37	2.37	0.00	0.00	-23.66	23.66	0.00	0.00
	L_{21}-U_{21}	-6.27	-17.63	0.00	0.00	-3.11	-0.78	0.00	0.00	-8.13	0.00
	U_{21}-L_{21}	-1.05	-9.86	-1.10	0.42	0.67	-0.50	-11.69	4.48	7.19	-5.41
	L_{21}-L_{22}	-8.78	2.44	-1.38	-0.01	0.19	0.04	-12.17	-7.46	2.07	0.39
	U_{21}-L_{22}	-19.42	19.66	-1.56	1.10	-0.02	-0.12	-16.65	11.86	-6.18	-1.24
	L_{22}-U_{22}	-46.48	58.24	-3.60	3.03	0.76	0.13	-38.83	32.77	6.23	1.38
	U_{22}-L_{22}	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	L_{22}-L_{23}	-69.31	71.94	-5.24	4.91	0.75	-0.64	-56.59	53.00	8.13	-6.87
	U_{22}-L_{23}	-77.89	79.74	-5.24	4.30	0.19	-0.19	-56.59	53.00	2.03	-2.03
	L_{23}-U_{23}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	U_{23}-L_{23}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	L_{23}-L_{24}	-76.52	55.14	-3.80	2.57	0.15	0.14	-41.00	27.79	1.63	1.49
	U_{23}-L_{24}	-39.14	39.91	-2.37	2.37	0.00	0.00	-23.66	23.66	0.00	0.00
	L_{24}-U_{24}	-6.27	-17.63	0.00	0.00	-3.11	-0.78	0.00	0.00	-8.13	0.00
	U_{24}-L_{24}	-1.05	-9.86	-1.10	0.42	0.67	-0.50	-11.69	4.48	7.19	-5.41
Structure 3	L_{24}-L_{25}	-8.78	2.44	-1.38	-0.01	0.19	0.04	-12.17	-7.46	2.07	0.39
	U_{24}-L_{25}	-19.42	19.66	-1.56	1.10	-0.02	-0.12	-16.65	11.86	-6.18	-1.24
	L_{25}-U_{25}	-46.48	58.24	-3.60	3.03	0.76	0.13	-38.83	32.77	6.23	1.38
	U_{25}-L_{25}	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	L_{25}-L_{26}	-69.31	71.94	-5.24	4.91	0.75	-0.64	-56.59	53.00	8.13	-6.87
	U_{25}-L_{26}	-77.89	79.74	-5.24	4.30	0.19	-0.19	-56.59	53.00	2.03	-2.03
	L_{26}-U_{26}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	U_{26}-L_{26}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	L_{26}-L_{27}	-76.52	55.14	-3.80	2.57	0.15	0.14	-41.00	27.79	1.63	1.49
	U_{26}-L_{27}	-39.14	39.91	-2.37	2.37	0.00	0.00	-23.66	23.66	0.00	0.00
	L_{27}-U_{27}	-6.27	-17.63	0.00	0.00	-3.11	-0.78	0.00	0.00	-8.13	0.00
	U_{27}-L_{27}	-1.05	-9.86	-1.10	0.42	0.67	-0.50	-11.69	4.48	7.19	-5.41
	L_{27}-L_{28}	-8.78	2.44	-1.38	-0.01	0.19	0.04	-12.17	-7.46	2.07	0.39
	U_{27}-L_{28}	-19.42	19.66	-1.56	1.10	-0.02	-0.12	-16.65	11.86	-6.18	-1.24
	L_{28}-U_{28}	-46.48	58.24	-3.60	3.03	0.76	0.13	-38.83	32.77	6.23	1.38
	U_{28}-L_{28}	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	L_{28}-L_{29}	-69.31	71.94	-5.24	4.91	0.75	-0.64	-56.59	53.00	8.13	-6.87
	U_{28}-L_{29}	-77.89	79.74	-5.24	4.30	0.19	-0.19	-56.59	53.00	2.03	-2.03
	L_{29}-U_{29}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	U_{29}-L_{29}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	L_{29}-L_{30}	-76.52	55.14	-3.80	2.57	0.15	0.14	-41.00	27.79	1.63	1.49
	U_{29}-L_{30}	-39.14	39.91	-2.37	2.37	0.00	0.00	-23.66	23.66	0.00	0.00
	L_{30}-U_{30}	-6.27	-17.63	0.00	0.00	-3.11	-0.78	0.00	0.00	-8.13	0.00
	U_{30}-L_{30}	-1.05	-9.86	-1.10	0.42	0.67	-0.50	-11.69	4.48	7.19	-5.41
	L_{30}-L_{31}	-8.78	2.44	-1.38	-0.01	0.19	0.04	-12.17	-7.46	2.07	0.39
	U_{30}-L_{31}	-19.42	19.66	-1.56	1.10	-0.02	-0.12	-16.65	11.86	-6.18	-1.24
	L_{31}-U_{31}	-46.48	58.24	-3.60	3.03	0.76	0.13	-38.83	32.77	6.23	1.38
	U_{31}-L_{31}	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	L_{31}-L_{32}	-69.31	71.94	-5.24	4.91	0.75	-0.64	-56.59	53.00	8.13	-6.87
	U_{31}-L_{32}	-77.89	79.74	-5.24	4.30	0.19	-0.19	-56.59	53.00	2.03	-2.03
	L_{32}-U_{32}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	U_{32}-L_{32}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	L_{32}-L_{33}	-76.52	55.14	-3.80	2.57	0.15	0.14	-41.00	27.79	1.63	1.49
	U_{32}-L_{33}	-39.14	39.91	-2.37	2.37	0.00	0.00	-23.66	23.66	0.00	0.00
	L_{33}-U_{33}	-6.27	-17.63	0.00	0.00	-3.11	-0.78	0.00	0.00	-8.13	0.00
	U_{33}-L_{33}	-1.05	-9.86	-1.10	0.42	0.67	-0.50	-11.69	4.48	7.19	-5.41
	L_{33}-L_{34}	-8.78	2.44	-1.38	-0.01	0.19	0.04	-12.17	-7.46	2.07	0.39
	U_{33}-L_{34}	-19.42	19.66	-1.56	1.10	-0.02	-0.12	-16.65	11.86	-6.18	-1.24
	L_{34}-U_{34}	-46.48	58.24	-3.60	3.03	0.76	0.13	-38.83	32.77	6.23	1.38
	U_{34}-L_{34}	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	L_{34}-L_{35}	-69.31	71.94	-5.24	4.91	0.75	-0.64	-56.59	53.00	8.13	-6.87
	U_{34}-L_{35}	-77.89	79.74	-5.24	4.30	0.19	-0.19	-56.59	53.00	2.03	-2.03
	L_{35}-U_{35}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	U_{35}-L_{35}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	L_{35}-L_{36}	-76.52	55.14	-3.80	2.57	0.15	0.14	-41.00	27.79	1.63	1.49
	U_{35}-L_{36}	-39.14	39.91	-2.37	2.37	0.00	0.00	-23.66	23.66	0.00	0.00
	L_{36}-U_{36}	-6.27	-17.63	0.00	0.00	-3.11	-0.78	0.00	0.00	-8.13	0.00
	U_{36}-L_{36}	-1.05	-9.86	-1.10	0.42	0.67	-0.50	-11.69	4.48	7.19	-5.41
	L_{36}-L_{37}	-8.78	2.44	-1.38	-0.01	0.19	0.04	-12.17	-7.46	2.07	0.39
	U_{36}-L_{37}	-19.42	19.66	-1.56	1.10	-0.02	-0.12	-16.65	11.86	-6.18	-1.24
	L_{37}-U_{37}	-46.48	58.24	-3.60	3.03	0.76	0.13	-38.83	32.77	6.23	1.38
	U_{37}-L_{37}	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	L_{37}-L_{38}	-69.31	71.94	-5.24	4.91	0.75	-0.64	-56.59	53.00	8.13	-6.87
	U_{37}-L_{38}	-77.89	79.74	-5.24	4.30	0.19	-0.19	-56.59	53.00	2.03	-2.03
	L_{38}-U_{38}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	U_{38}-L_{38}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	L_{38}-L_{39}	-76.52	55.14	-3.80	2.57	0.15	0.14	-41.00	27.79	1.63	1.49
	U_{38}-L_{39}	-39.14	39.91	-2.37	2.37	0.00	0.00	-23.66	23.66	0.00	0.00
	L_{39}-U_{39}	-6.27	-17.63	0.00	0.00	-3.11	-0.78	0.00	0.00	-8.13	0.00
	U_{39}-L_{39}	-1.05	-9.86	-1.10	0.42	0.67	-0.50	-11.69	4.48	7.19	-5.41
	L_{39}-L_{40}	-8.78	2.44	-1.38	-0.01	0.19	0.04	-12.17	-7.46	2.07	0.39
	U_{39}-L_{40}	-19.42	19.66	-1.56	1.10	-0.02	-0.12	-16.65	11.86	-6.18	-1.24
	L_{40}-U_{40}	-46.48	58.24	-3.60	3.03	0.76	0.13	-38.83	32.77	6.23	1.38
	U_{40}-L_{40}	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	L_{40}-L_{41}	-69.31	71.94	-5.24	4.91	0.75	-0.64	-56.59	53.00	8.13	-6.87
	U_{40}-L_{41}	-77.89	79.74	-5.24	4.30	0.19	-0.19	-56.59	53.00	2.03	-2.03
	L_{41}-U_{41}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	U_{41}-L_{41}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	L_{41}-L_{42}	-76.52	55.14	-3.80	2.57	0.15	0.14	-41.00	27.79	1.63	1.49
	U_{41}-L_{42}	-39.14	39.91	-2.37	2.37	0.00	0.00	-23.66	23.66	0.00	0.00
	L_{42}-U_{42}	-6.27	-17.63	0.00	0.00	-3.11	-0.78	0.00	0.00	-8.13	0.00
	U_{42}-L_{42}	-1.05	-9.86	-1.10	0.42	0.67	-0.50	-11.69	4.48	7.19	-5.41
	L_{42}-L_{43}	-8.78	2.44	-1.38	-0.01	0.19	0.04	-12.17	-7.46	2.07	0.39
	U_{42}-L_{43}	-19.42	19.66	-1.56	1.10	-0.02	-0.12	-16.65	11.86	-6.18	-1.24
	L_{43}-U_{43}	-46.48	58.24	-3.60	3.03	0.76	0.13	-38.83	32.77	6.23	1.38
	U_{43}-L_{43}	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	L_{43}-L_{44}	-69.31	71.94	-5.24	4.91	0.75	-0.64	-56.59	53.00	8.13	-6.87
	U_{43}-L_{44}	-77.89	79.74	-5.24	4.30	0.19	-0.19	-56.59	53.00	2.03	-2.03
	L_{44}-U_{44}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	U_{44}-L_{44}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	L_{44}-L_{45}	-76.52	55.14	-3.80	2.57	0.15	0.14	-41.00	27.79	1.63	1.49
	U_{44}-L_{45}	-39.14	39.91	-2.37	2.37	0.00	0.00	-23.66	23.66	0.00	0.00
	L_{45}-U_{45}	-6.27	-17.63	0.00	0.00	-3.11	-0.78	0.00	0.00	-8.13	0.00
	U_{45}-L_{45}	-1.05	-9.86	-1.10	0.42	0.67	-0.50	-11.69	4.48	7.19	-5.41
	L_{45}-L_{46}	-8.78	2.44	-1.38	-0.01	0.19	0.04	-12.17	-7.46	2.07	0.39
	U_{45}-L_{46}	-19.42	19.66	-1.56	1.10	-0.02	-0.12	-16.65	11.86	-6.18	-1.24
	L_{46}-U_{46}	-46.48	58.24	-3.60	3.03	0.76	0.13	-38.83	32.77	6.23	1.38
	U_{46}-L_{46}	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	L_{46}-L_{47}	-69.31	71.94	-5.24	4.91	0.75	-0.64	-56.59	53.00	8.13	-6.87
	U_{46}-L_{47}	-77.89	79.74	-5.24	4.30	0.19	-0.19	-56.59	53.00	2.03	-2.03
	L_{47}-U_{47}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	U_{47}-L_{47}	-36.18	94.54	-1.56	4.51	0.99	-0.78	-16.60	68.74	10.74	-8.43
	L_{47}-L_{48}	-76.52	55.14	-3.80	2.57	0.15	0.14	-41.00	27.79	1.63	1.49
	U_{47}-L_{48}	-39.14	39.91	-2.37	2.37	0.00	0.00	-23.66	23.66	0.00	0.00
	L_{48}-U_{48}	-6.27	-17.63	0.00	0.00	-3.11	-0.78	0.00	0.00	-8.13	0.00
	U_{48}-L_{48}	-1.05	-9.86	-1.10	0.42	0.67	-0.50	-11.69	4.48	7.19	-5.41
	L_{48}-L_{49}	-8.78	2.44	-1.38	-0.01	0.19	0.04	-12.17	-7.46	2.07	0.39
	U_{48}-L_{49}	-19.42	19.66	-1.56	1.10	-0.02	-0.12	-16.65	11.86	-6.18	-1.24
	L_{49}-U_{49}	-46.48	58.24	-3.60	3.03	0.76	0.13	-38.83	32.77	6.23	1.38
	U_{49}-L_{49}	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	L_{49}-L_{50}	-69.31	71.94	-5.24	4.91	0.75	-0.64	-56.59	53.00	8.13	-6.87
	U_{49}-L_{50}	-77.89	79.74	-5.24	4.30	0.19	-0.19	-56.59	53.00	2.03	-2.03
	L_{50}-U_{50}	-36.18	94.54	-1.

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.83

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1998

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Max) End (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	U_0-U_1	-75.17	-0.72	0.85	143.0	-2.26	-4.82	7.68	12.90	-30.23	-43.34
	U_1-U_2	-45.62	-20.29	3.29	-2.09	-8.46		2.63	10.54	-18.80	-75.12
	U_2-U_3	-112.29	86.52	1.37	3.60	-3.15	-5.21	12.30	32.42	-28.39	-46.85
	U_3-U_4	-75.71	66.12	2.31	3.37	-4.83	-3.39	20.76	30.37	-43.46	-122.32
	U_4-U_5	-9.25	61.62	2.36	3.06	-15.60	-2.91	21.21	30.27	-139.48	26.23
	U_5-U_6	42.76	120.21	2.67	3.60	-4.83	-0.16	24.03	32.43	-43.44	-1.48
	U_6-U_7	93.76	43.60	2.96	2.66	-4.32	-4.26	24.82	14.49	-43.46	-63.95
	U_7-U_8	-47.38	526.15	-19.79	20.59	0.00	0.00	-61.14	185.32	0.00	0.00
	U_8-U_9	475.02	-134.76	17.50	-6.61	0.00	0.00	157.46	-59.48	0.00	0.00
	U_9-U_{10}	46.82	20.99	1.50	2.24	1.01	-4.38	13.46	20.20	9.11	-39.38
	U_{10}-U_{11}	64.59	-138.78	2.44	1.76	0.00	-7.75	23.75	-49.81	0.00	-69.85
	U_{11}-U_{12}	27.91	-140.51	2.87	1.26	-0.16	-7.69	25.79	-11.39	-1.41	-68.80
	U_{12}-U_{13}	-106.12	-155.13	2.04	0.74	-0.48	-4.14	18.38	6.62	-4.28	-37.24
	U_{13}-U_{14}	-138.04	-262.92	1.76	0.23	-0.80	-2.56	16.26	12.11	-12.56	-23.29
	U_{14}-U_{15}	-245.80	-183.07	1.35	1.02	-25.24	-6.95	12.11	9.22	-227.20	-62.58
	U_{15}-U_{16}	-123.51	-327.01	1.72	0.19	-4.92	-9.61	16.46	1.75	-44.25	-86.46
	U_{16}-U_{17}	-269.97	-145.19	0.59	0.05	-14.64	-4.28	5.28	0.43	-131.80	-38.54
	U_{17}-U_{18}	-134.36	-67.40	0.66	-0.32	-6.66	1.76	5.94	2.49	-60.37	15.28
	U_{18}-U_{19}	-170.82	-20.32	0.50	-0.05	-7.62	1.05	4.47	-0.47	-63.18	9.47
	U_{19}-U_{20}	-186.23	23.42	0.57	-0.05	-6.83	2.01	5.15	-4.98	-61.50	18.13
	U_{20}-U_{21}	114.62	-208.71	0.10	1.96	-1.04	0.11	0.00	0.00	0.00	-81.88
	U_{21}-U_{22}	-71.24	-180.99	-0.28	2.30	0.01	-10.48	-2.53	20.74	0.11	-94.35
	U_{22}-U_{23}	-125.26	-63.14	-0.52	1.26	-0.36	-12.67	-4.66	11.51	-2.03	-115.42
	U_{23}-U_{24}	-327.34	-325.40	1.49	3.33	-8.57	-12.42	13.37	29.93	-77.09	-111.61
	U_{24}-U_{25}	-238.58	-211.79	1.81	3.68	-7.01	-9.11	16.48	33.68	-64.15	-103.02
	U_{25}-U_{26}	-396.14	-197.74	3.27	6.53	-13.61	-5.44	29.46	58.73	-122.95	-48.92
	U_{26}-U_{27}	-344.18	-179.44	5.02	4.37	-8.84	-27.29	45.19	39.36	-79.55	-245.57
	U_{27}-U_{28}	-226.16	-295.72	3.65	4.96	-7.27	-37.19	32.86	44.60	-248.33	-89.37
	U_{28}-U_{29}	-350.21	-90.73	4.25	5.63	-6.48	-8.65	38.27	50.62	-58.28	-77.87
	U_{29}-U_{30}	-237.26	-215.08	3.76	4.20	-7.01	-8.06	33.87	37.81	-63.13	-72.58
	U_{30}-U_{31}	-167.09	-39.84	5.51	5.42	-8.65	-2.03	49.59	48.78	-81.42	-18.23
	U_{31}-U_{32}	-109.78	170.74	4.98	4.38	-11.29	1.90	44.19	39.44	-101.63	17.08
	U_{32}-U_{33}	-261.01	-22.06	4.98	4.38	-11.29	-22.06	44.19	39.44	-101.63	-17.08
	U_{33}-U_{34}	-261.01	1266.00	-11.98	40.58	0.00	0.00	-104.30	365.18	0.00	0.00
	U_{34}-U_{35}	1192.78	-64.94	-11.98	40.58	0.00	0.00	363.74	-104.30	0.00	0.00
	U_{35}-U_{36}	-25.29	11.66	-0.63	-0.77	0.00	0.00	-5.69	-6.94	0.00	0.00
	U_{36}-U_{37}	150.60	33.06	3.05	6.21	0.80	-7.64	27.49	37.89	7.23	-68.80
	U_{37}-U_{38}	142.31	4.37	3.74	4.63	-0.32	-8.15	33.64	41.63	-2.84	-73.35
	U_{38}-U_{39}	134.03	-24.31	3.07	3.04	-1.84	-8.67	39.80	45.38	-13.01	-77.90
	U_{39}-U_{40}	-31.69	-33.99	3.66	4.09	-1.93	-4.43	32.95	36.74	-17.35	-37.84
	U_{40}-U_{41}	-98.03	-71.79	3.91	3.91	-2.47	-1.19	35.22	34.89	-23.47	-10.73
	U_{41}-U_{42}	-60.96	-66.58	3.83	3.88	-23.80	-7.59	34.47	34.91	-214.20	-68.33
	U_{42}-U_{43}	-21.55	5.63	4.02	4.04	-12.20	-3.62	36.20	36.89	-109.91	-32.94
	U_{43}-U_{44}	-33.01	-28.69	4.02	4.04	-12.20	-3.62	36.20	36.89	-109.91	-32.94
	U_{44}-U_{45}	-15.13	113.78	4.57	3.57	-8.25	1.83	41.14	32.14	-74.26	16.44
	U_{45}-U_{46}	-38.98	62.14	4.57	3.57	-8.25	1.83	41.14	32.14	-74.26	16.44
	U_{46}-U_{47}	-2.74	209.84	-3.12	8.29	-6.38	2.38	-28.11	74.57	-57.42	21.44
	U_{47}-U_{48}	-67.84	36.29	-3.12	8.29	-6.38	2.38	-28.11	74.57	-57.42	21.44
	U_{48}-U_{49}	-122.51	1157.56	-9.02	41.57	0.00	0.00	-39.09	372.49	0.00	0.00
	U_{49}-U_{50}	1154.91	-197.36	-41.12	-11.71	0.00	0.00	370.04	-105.41	0.00	0.00
	U_{50}-U_{51}	-67.84	36.29	-3.12	8.29	-6.38	2.38	-28.11	74.57	-57.42	21.44
	U_{51}-U_{52}	178.89	-59.81	4.41	4.98	0.54	-10.48	39.23	44.76	4.86	94.28
	U_{52}-U_{53}	170.60	-71.03	4.41	4.98	0.54	-10.48	39.23	44.76	4.86	94.28
	U_{53}-U_{54}	68.66	-178.68	5.94	4.88	-4.51	-14.92	53.44	43.93	-40.58	-134.29
	U_{54}-U_{55}	-67.84	36.29	-3.12	8.29	-6.38	2.38	-28.11	74.57	-57.42	21.44
	U_{55}-U_{56}	-236.51	-153.10	4.52	3.97	-7.58	-27.29	40.68	35.70	-68.19	-245.62
	U_{56}-U_{57}	-98.60	-313.21	4.78	4.50	-25.71	-6.90	43.01	40.46	-231.35	-62.08
	U_{57}-U_{58}	-159.58	-38.11	3.89	4.31	-21.30	-7.66	34.98	38.73	-191.62	-68.91
	U_{58}-U_{59}	-350.37	-386.86	3.52	2.96	-28.56	-7.19	31.67	8.62	-257.05	-64.70
	U_{59}-U_{60}	-379.39	-117.76	2.36	-0.63	-13.02	0.31	21.20	-5.64	-117.22	3.37
	U_{60}-U_{61}	-282.51	-37.61	1.47	-0.70	-7.13	0.78	13.23	-0.29	-63.29	7.03
	U_{61}-U_{62}	-186.32	-74.12	1.82	0.17	-9.40	3.13	16.41	-10.56	-80.01	28.20
	U_{62}-U_{63}	-139.08	-187.57	-0.15	0.71	-0.97	-6.45	-1.38	6.35	-8.73	-58.06
	U_{63}-U_{64}	-47.36	-119.85	0.61	0.79	-1.38	-7.58	-0.63	2.16	-13.84	-70.94
	U_{64}-U_{65}	-52.58	-129.17	-0.18	0.88	-0.13	-6.92	-1.65	7.89	-1.20	-62.24
	U_{65}-U_{66}	-227.84	-111.68	0.66	1.69	-3.76	-4.83	5.90	16.01	-33.86	-43.43
	U_{66}-U_{67}	-166.98	-243.52	1.20	1.62	-6.82	-25.58	10.79	14.56	-61.36	-230.26
	U_{67}-U_{68}	-287.74	-127.82	1.14	1.44	-26.00	-4.96	10.25	13.05	-234.00	-44.62
	U_{68}-U_{69}	-141.42	-113.94	1.01	1.93	-4.35	-2.27	9.05	17.41	-39.15	-2.43
	U_{69}-U_{70}	-145.52	-22.75	1.27	2.97	-11.55	-0.55	11.41	26.72	-103.91	-4.91
	U_{70}-U_{71}	-141.64	56.96	1.78	2.68	-8.75	2.18	15.99	24.12	-78.74	19.58
	U_{71}-U_{72}	-136.67	471.04	-6.88	17.76	0.00	0.00	-61.91	159.63	0.00	0.00
	U_{72}-U_{73}	497.26	-34.44	19.70	-6.16	0.00	0.00	177.29	-55.42	0.00	0.00
	U_{73}-U_{74}	41.03	109.94	1.75	2.76	-0.50	-4.93	15.72	24.85	-8.07	-44.36
	U_{74}-U_{75}	113.04	44.48	3.60	2.67	2.30	-4.58	32.41	24.05	20.67	-41.01
	U_{75}-U_{76}	59.35	15.11	3.55	2.26	-3.07	-15.00	31.96	20.36	-27.59	-135.02
	U_{76}-U_{77}	86.09	-19.75	3.53	2.02	-13.39	-4.62	31.80	18.20	-120.48	-43.34
	U_{77}-U_{78}	80.30	-119.58	3.59	0.74	-4.85	-7.13	32.34	6.69	-43.69	-64.18
	U_{78}-U_{79}	-24.63	-27.07	2.18	0.26	-12.12	-2.40	19.63	2.38	-109.07	-21.58
	U_{79}-U_{80}	29.38	-160.66	1.61	-0.81	-6.14	2.37	14.45	-7.26	-55.28	21.29

ZZ Axis Moment Properties

Location	Member	Max. Pos. Mom. Start (k-in)	Max. Pos. Mom. End (k-in)	Max. Neg. Mom. Start (k-in)	Max. Neg. Mom. End (k-in)	S_{top} (in^3)	S_b (in^3)	S_{bc} (in^3)	Z_z (in^3)	I_{zz} (in^4)	Shape Factor f	M_p (k-in)	Formula f & Term * F_y*S_bc	M_n k-in	Equivalent Mom. Factor a	$C_{b(a)}$	$C_{b(b)}$
Structure 1	U_0-U_1	-74.99	27.00	-135.27	-94.83	90.2	90.24	72.24	127.46	2147	1328.6	1.41	4206	0.99880042	2974.3	0.701	0.88	0.88	33.22
	U_1-U_2	-55.18	28.39	-101.62	-191.31	90.2	90.24	72.24	127.46	2147	1328.6	1.41	4206	0.99880042	2974.3	0.531	0.81	0.81	45.84
	U_2-U_3	-119.32	182.71	-207.48	10.96	90.2	90.24	76.71	127.46	2147	1328.6	1.41	4206	0.99880042	2974.3	-0.003	0.58	0.58	46.69
	U_3-U_4	-24.97	28.28	-104.72	-154.62	90.2	90.24	72.24	127.46	2147	1328.6	1.41	4206	0.99880042	2974.3	0.486	0.86	0.86	2.32
	U_4-U_5	-9.25	61.62	2.36	3.06	-15.60	-2.91	21.21	30.27	-139.48	26.23	0.00	0.00	33.94	165.69	2974.3	-0.014	0.57	0.57
	U_5-U_6	42.76	120.21	2.67	3.60	-4.83	-0.16	24.03	32.43	-43.44	-1.48	0.00	0.00	107.65	226.53	-38.54	153.07	90.2	90.24
	U_6-U_7	93.76	43.60	2.96	2.66	-4.32	-4.26	24.82	14.49	-43.46	-63.95	0.00	0.00	174.36	92.41	-19.37	46.30	90.2	90.24
	U_7-U_8	-61.14	185.32	0.00	0.00	0.00	0.00	-194.06	1085.52	-61.60	664.09	138.2	138.17	111.77	199.97	3642	2197.7	1.45	6099
	U_8-U_9	157.46	-59.48	0.00	0.00	0.00	0.00	858.69	-290.54	617.54	-161.66	130.3	130.26	105.11	180.77	2960	1799.3	1.39	5665
	U_9-U_{10}	13.46	20.20	9.11	-39.38	0.00	0.00	90.01	70.53	80.60	-58.66	96.6	96.61	79.12	135.29	2174	1387.9	1.40	4465
	U_{10}-U_{11}	23.75	-49.81	0.00	-69.85	0.00	0.00	-13.42	-146.03	132.19	-448.78	96.6	96.61	83.55	135.29	2174	1387.9	1.40	4465
	U_{11}-U_{12}	25.79	-11.39	-1.41	-68.80	0.00	0.00	92.10	-158.07	33.22	-331.84	128.7	128.69	105.26	182.66	3153	1864.4	1.42	6028
	U_{12}-U_{13}	18.38	6.62	-4.28	-37.24	0.00	0.00	66.14	-187.32	-147.24	-282.37	151.8	151.76	130.94	219.77	4535	2632.6	1.45	7252
	U_{13}-U_{14}	16.26	12.11	-12.56	-23.29	-2.16	-20.49	53.81	-152.96	-173.29	-216.32	151.8	151.76	130.94	219.77	4535	2632.6	1.45	7252
	U_{14}-U_{15}	12.11	9.22	-227.20	-62.58	0.00	0.00	290.31	-216.02	-811.80	-585.51	188.5	188.51	157.55	274.68	5476	3413.6	1.46	9064
	U_{15}-U_{16}	16.46	1.75	-44.25	-86.46	0.00	0.00	-127.97	-427.33	-296.45	-612.49	188.5	188.51	157.55	274.68	5476	3413.6	1.46	9064
	U_{16}-U_{17}	5.28	0.43	-131.80	-38.54	0.00	0.00	-339.52	-187.80	-636.52	-272.24	188.5	188.51	157.55	274.68	5476	3413.6	1.46	9064
	U_{17}-U_{18}	5.94	2.49	-60.37	15.28	0.00	0.00	-134.80	-64.69	-127.33	-112.43	188.23	188.23	3668	2526.5	1.46	6146	0.99907156	4197.7
	U_{18}-U_{19}	4.47	-0.47	-63.18	9.47	0.00	0.00	-212.37	-27.44	-358.95	-5.91	104.8	104.75	86.43	150.63	2589	1554.3	1.44	4971
	U_{19}-U_{20}	5.15	-4.98	-61.50	18.13	0.00	0.00	-230.94	19.67	-375.34	69.72	104.8	104.75	86.43	150.63	2589	1554.3	1.44	4971
	U_{20}-U_{21}	0.00	0.00	0.00	-81.88	0.00	0.00	153.25	-223.32	19.17	-437.15	104.8	104.75	86.43	150.63	2589	1554.3	1.44	4971
	U_{21}-U_{22}	-2.53	20.74	0.11	-94.35	0.00	0.00	-88.09	-190.35	-92.37	-439.70	138.2	138.15	119.05	199.70	3434	1990.9	1.45	6690
	U_{22}-U_{23}	-4.66	11.51	-2.03	-115.42	0.00	0.00	-98.39	-154.08	-21.46	-354.08	79.12	79.12	68.21	116.43	2147	1307.7	1.46	4031
	U_{23}-U_{24}	-13.37	29.93	-77.09	-111.61	0.00	0.00	-396.59	-358.17	-692.58	-665.27	232.7	232.70	198.86	340.10	6520	3217.6	1.46	11223
	U_{24}-U_{25}	-16.48	33.68	-64.15	-103.02	0.00	0.00	-400.52	-293.73	-693.26	-600.52	232.7	232.70	198.86	340.10	6520	3217.6	1.46	11223
	U_{25}-U_{26}	-29.46	58.73	-122.95	-48.92	0.00	0.00	-451.16	-129.81	-780.30	-363.05	251.7	251.73	215.41	365.62	7161	3670.6	1.45	12903
	U_{26}-U_{27}	-45.19	39.36	-79.55	-245.57	0.00	0.00	-349.52	-147.99	-619.79	-765.32	232.7	232.70	199.45	340.10	6520	3217.6	1.46	11223
	U_{27}-U_{28}	-32.86	44.60	-248.33	-89.37	0.00	0.00	-222.65	-287.82	-532.55	-534.75	232.7	232.70	199.45	340.10	6520	3217.6	1.46	11223
	U_{28}-U_{29}	-38.27	50.62	-58.28	-77.87	0.00	0.00	-372.38	-8.26	-581.96	-286.66	198.9	198.88	169.65	289.08	5137	2713.1	1.43	9408
	U_{29}-U_{30}	-33.87	37.81	-63.13	-72.58	0.00	0.00	-196.42	-55.19	-306.91	-128.51	198.9	198.88	169.65	289.08	5137	2713.1	1.43	9408
	U_{30}-U_{31}	-49.59	48.78	-81.42	-18.23	0.00	0.00	-109.77	157.49	-392.63	12.29	198.6	198.60	169.42	288.68	5129	2711.8	1.43	9401
	U_{31}-U_{32}	-44.19	39.44	-101.63	17.08	0.00	0.00	-45.68	307.41	-392.91	258.97	156.8	156.80	128.72	214.81	3285	1852.3	1.37	7089
	U_{32}-U_{33}	-44.19	39.44	-101.63	-22.06	0.00	0.00	-24.39	307.41	-392.91	258.97	156.8	156.80	128.72	214.81	3285	1852.3	1.37	7089
	U_{33}-U_{34}	-104.30	365.18	0.00	0.00	0.00	0.00	-565.30	2437.01	-339.32	1645.79	221.8	221.77	196.91	327.26	6244	3427.0	1.48	10799
	U_{34}-U_{35}	363.74	-104.30	0.00	0.00	0.00	0.00	-2338.71	-339.32	1645.79	-1645.79	221.8	221.77	196.91	327.26	6244	3427.0	1.48	10799
	U_{35}-U_{36}	-5.69	-6.94	0.00	0.00	0.00	0.00	-46.19	78.12	-32.87	93.15	185.70	154.12	266.55	4767	27214	1.44	8796	0.99880001
	U_{36}-U_{37}	27.49	37.89	7.23	-68.80	0.00	0.00	-255.33	125.07	-211.44	-108.08	127.9	127.83	111.16	178.51	2762	1538.8	1.40	5891
	U_{37}-U_{38}	33.64	41.63	-2.84	-73.35	0.00	0.00	-264.40	95.89	185.34	-153.24	127.8	127.83	111.16	178.51	2762	1538.8	1.40	5891
	U_{38}-U_{39}	39.80	45.38	-13.01	-77.90	0.00	0.00	-273.46	116.60	22.74	-197.40	127.8	127.83	111.16	178.51	2762	1538.8	1.40	5891
	U_{39}-U_{40}	32.95	36.74	-17.35	-37.84	0.00	0.00	30.19	35.42	-79.79	-169.51	144.8	144.84	125.49	209.19	3613	2101.0	1.44	6903
	U_{40}-U_{41}	35.22	34.89	-23.47	-10.73	0.00	0.00	-30.54	37.39	-43.73	-73.27	144.8	144.84	125.49	209.19	3613	2101.0	1.44	6903
	U_{41}-U_{42}	34.47	34.91	-214.20	-68.33	0.00	0.00	-4.57	-37.43	-643.35	-261.41	144.8	144.84	125.49	209.19	3613	2101.0	1.44	6903
	U_{42}-U_{43}	36.20	36.89	-109.91	-32.94	0.00	0.00	35.52	117.23	-282.83	-33.21	134.9	134.91	114.79	193.76	3306	2012.9	1.40	6245
	U_{43}-U_{44}	36.20	36.89	-109.91	-32.94	0.00	0.00	69.35	217.55	-180.56	183.54	127.8	127.83	111.16	178.51	2762	1538.8	1.40	5891
	U_{44}-U_{45}	41.14	32.14	-74.26	16.44	0.00	0.00	72.76	213.63	-76.53	172.63	127.8	127.83	111.16	178.51	2762	1538.8	1.40	5891
	U_{45}-U_{46}	41.14	32.14	-74.26	16.44	0.00	0.00	72.76	213.63	-76.53	172.63	127.8	127.83	111.16	178.51	2762	1538.8	1.40	5891
	U_{46}-U_{47}	-28.11	74.57	-57.42	21.44	0.00	0.00	-64.46	434.35	-127.97	319.24	173.0	173.03	144.25	241.17	3969	2180.7	1.39	7959
	U_{47}-U_{48}	-28.11	74.57	-57.42	21.44	0.00	0.00	-64.46	434.35	-127.97	319.24	173.0	173.03	144.25	241.17	3969	2180.7	1.39	7959
	U_{48}-U_{49}	-39.09	372.49	0.00	0.00	0.00	0.00	-335.09	2315.49	-159.26	1504.83	221.8	221.77	196.91	327.26	6244	3427.0	1.48	10799
	U_{49}-U_{50}	370.04	-105.41	0.00	0.00	0.00	0.00	2303.13	-484.95	1501.39	-256.57	221.8	221.77	196.91	327.26	6244	3427.0	1.48	10799
	U_{50}-U_{51}	-28.11	74.57	-57.42	21.44	0.00	0.00	-64.46	434.35	-127.97	319.24	173.0	173.03	144.25	241.17	3969	2180.7	1.39	7959
	U_{51}-U_{52}	39.23	44.76	4.86	94.28	0.00	0.00	318.62	19.28	243.08	282.04	156.8	156.80	128.72	214.81	3285	1852.3	1.37	7089
	U_{52}-U_{53}	39.23	44.76	4.86	94.28	0.00	0.00	318.62	19.28	243.08	282.04	156.8	156.80	128.72	214.81	3285	1852.3	1.37	7089
	U_{53}-U_{54}	53.44	43.93	-40.58	-134.29	0.00	0.00	205.05	-137.10	1.34	-523.24	181.9	181.87	147.20	249.02	3767	2047.9	1.37	8218
	U_{54}-U_{55}	-28.11	74.57	-57.42	21.44	0.00	0.00	-64.46	434.35	-127.97	319.24	173.0	173.03	144.25	241.17	3969	2180.7	1.39	7959
	U_{55}-U_{56}	40.68	35.70	-68.19	-245.62	0.00	0.00	-335.09	2315.49	-159.26	1504.83	221.8	221.77	196.91	327.26	6244	3427.0	1.48	10799
	U_{56}-U_{57}	43.01	40.46	-231.35	-62.08	0.00	0.00	-35.06	-319.50	-629.50	-541.69	232.7	232.70	199.45	340.10	6520	3217.6	1.46	11223
	U_{57}-U_{58}	34.98	38.73	-191.62	-68.91	0.00	0.00	-60.62	-458.38	-526.25	-678.44	232.7	232.70	199.45	340.10	6520	3217.6	1.46	11223
	U_{58}-U_{59}	31.67	8.62	-257.05	-64.70	0.00	0.00	-386.86	-484.23	-1012.42	-643.10	251.7	251.73	219.41	365.62	7161	3670.6	1.45	12903
	U_{59}-U_{60}	21.20	-5.64	-117.22	3.37	0.00	0.00	-437.09	-644.79	-1216.46	-1016.30	188.5	188.51	157.55	274.68	5476	3413.6	1.46	9064
	U_{60}-U_{61}	13.23	-0.29	-63.29	7.03	0.00	0.00	-316.73	-165.31	-616.64	-445.79	212.6	212.59	179.43	297.57	4867	2491.8	1.40	9820
	U_{61}-U_{62}	16.41	-10.56	-80.01	28.20	0.00	0.00	-206.66	-119.23	-426.41	-325.26	127.8	127.83	111.16	178.51	2762	1538.8	1.40	5891
	U_{62}-U_{63}	-1.38	6.35	-8.73	-58.06	0.00	0.00	177.82	-230.61	161.89	-370.15	104.8	104.75	86.43	150.63	2589	1554.3	1.44	4971
	U_{63}-U_{64}	-0.63	2.16	-13.84	-70.94	0.00	0.00	-63.74	-139.61	-84.14	-224.13	104.8	104.75	86.43	150.63	2589	1554.3	1.44	4971
	U_{64}-U_{65}	-1.65	7.89	-1.20	-62.24	0.00	0.00	-71.52	-150.81	-70.94	-302.78	127.3	127.32	110.60	177.56	2747	1530.6	1.41	5854
	U_{65}-U_{66}	-5.90	16.01	-33.86	-43.43	0.00	0.00	-152.19	-208.52	-202.19	-312.74	188.23	188.23	156.86	272.89	5476	3413.6	1.46	9064
	U_{66}-U_{67}	-10.79	14.56	-61.36	-230.26	0.00	0.00	-348.41	-110.47	-434.56	-229.26	188.5	188.51	157.55	274.68	5476	3413.6	1.46	9064
	U_{67}-U_{68}	-10.25	13.05	-234.00	-44.62	0.00	0.00	-193.70	-284.96	-350.03	-411.84	188.5

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.80

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Max) End (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	L_0-L_1	-15.50	-73.38	2.73	-3.45	1.78	-2.36				
	L_1-L_2	39.75	-88.06	-0.99	-6.32	-0.17	2.24				
	L_2-L_3	70.00	-42.24	1.32	-1.36	2.40					
	L_3-L_4	-11.39	11.52	-3.77	-12.18	1.25	3.99				
	L_4-L_5	-49.18	208.14	-8.83	0.22	-24.22	32.59				
	L_5-L_6	-0.43	187.22	-4.51	-6.61	2.32	5.30				
	L_6-L_7	41.36	79.14	-2.01	-5.02	0.00	0.00				
	L_7-L_8	-25.09	448.92	0.00	-1.40	-18.69					
	L_8-L_9	426.08	-36.00	0.00	0.00	17.02	-1.12				
	L_9-L_{10}	110.12	-126.55	0.00	0.00	1.39	-1.04				
	L_{10}-L_{11}	120.53	-116.03	0.98	-4.52	6.03	-2.62				
	L_{11}-L_{12}	109.16	-128.25	0.00	0.00	-0.01	2.21				
	L_{12}-L_{13}	-45.20	-121.29	-3.63	1.97	0.94					
	L_{13}-L_{14}	96.42	-350.16	1.54	-17.48	1.60	1.01				
	L_{14}-L_{15}	352.17	-84.53	0.00	-1.72	-133.23	43.92				
	L_{15}-L_{16}	-192.00	-318.69	-7.75	-6.24	0.71	0.26				
	L_{16}-L_{17}	339.87	44.80	-8.95	0.18	5.67	0.29				
	L_{17}-L_{18}	-154.69	-31.48	-4.65	1.62	0.22	-0.20				
	L_{18}-L_{19}	-216.17	148.84	-3.37	1.87	0.29	-0.07				
	L_{19}-L_{20}	-136.64	49.93	-3.63	1.66	-5.53	3.37				
	L_{20}-L_{21}	2.99	-170.85	3.52	-7.93	1.93	-4.92				
	L_{21}-L_{22}	16.56	-245.54	3.52	-8.56	2.75	-7.43				
	L_{22}-L_{23}	-6.26	-180.81	-0.85	-7.55	-0.23	1.66				
	L_{23}-L_{24}	12.08	-153.15	0.00	-4.64	-14.76	6.11				
	L_{24}-L_{25}	-253.03	-295.08	-8.74	-11.10	1.50	2.75				
	L_{25}-L_{26}	47.36	-409.18	-8.74	-11.32	-1.43	1.41				
	L_{26}-L_{27}	-475.14	-252.78	14.53	-17.55	4.28	4.39				
	L_{27}-L_{28}	-280.52	-64.48	-18.30	-5.86	3.57	6.30				
	L_{28}-L_{29}	-292.37	219.77	-4.40	-8.45	-43.38	32.97				
	L_{29}-L_{30}	-225.89	141.33	-11.84	-6.20	3.14	6.00				
	L_{30}-L_{31}	-201.56	285.05	-8.41	-7.75	4.49	3.95				
	L_{31}-L_{32}	-160.00	387.18	0.50	3.36	-8.33	13.68				
	L_{32}-L_{33}	-202.72	-204.41	0.00	0.00	-2.63	-84.56				
	L_{33}-L_{34}	-375.75	-103.15	0.00	0.00	-1.39	-0.04				
	L_{34}-L_{35}	1072.48	-412.36	0.00	0.00	37.66	-14.67				
	L_{35}-L_{36}	337.48	-413.03	0.00	0.00	1.94	1.18				
	L_{36}-L_{37}	475.61	-49.01	0.00	0.00	15.18	-4.07				
	L_{37}-L_{38}	226.53	-41.80	0.00	0.00	2.71	-1.26				
	L_{38}-L_{39}	226.53	-41.80	-0.26	-6.07	4.68	3.18				
	L_{39}-L_{40}	214.46	-56.64	-1.01	-7.68	2.58	4.63				
	L_{40}-L_{41}	48.26	-84.75	-0.26	-6.07	0.00	0.00				
	L_{41}-L_{42}	49.26	-202.49	-3.39	-16.72	3.15	4.81				
	L_{42}-L_{43}	-291.76	319.69	-3.39	-16.56	7.54	4.81				
	L_{43}-L_{44}	-111.93	0.87	-9.08	-5.88	3.26	4.07				
	L_{44}-L_{45}	-75.75	0.87	-8.83	-5.88	3.26	4.07				
	L_{45}-L_{46}	-60.79	179.83	-6.58	-2.12	2.96	4.35				
	L_{46}-L_{47}	-81.88	265.66	-3.52	1.05	-8.20	6.99				
	L_{47}-L_{48}	21.74	-113.40	0.00	0.00	-1.39	-1.04				
	L_{48}-L_{49}	-100.08	-279.84	0.00	0.00	-1.92	-11.23				
	L_{49}-L_{50}	372.05	1005.84	0.00	0.00	-4.52	37.72				
	L_{50}-L_{51}	1027.57	362.88	0.00	0.00	38.74	-14.82				
	L_{51}-L_{52}	-227.20	-125.85	0.00	0.00	-9.90	-2.70				
	L_{52}-L_{53}	426.89	-114.31	1.62	-1.62	1.58	1.42				
	L_{53}-L_{54}	278.16	-133.13	1.76	-9.29	2.95	4.92				
	L_{54}-L_{55}	15.80	-83.52	0.00	0.00	0.00	0.00				
	L_{55}-L_{56}	222.98	-243.33	-2.52	-8.75	3.71	4.12				
	L_{56}-L_{57}	291.76	-319.69	-3.39	-16.56	7.54	4.81				
	L_{57}-L_{58}	-167.99	-470.86	-17.29	-13.95	6.40	3.24				
	L_{58}-L_{59}	-445.18	-83.02	-14.40	-13.93	3.88	9.91				
	L_{59}-L_{60}	-291.76	-319.69	-3.39	-16.56	7.54	4.81				
	L_{60}-L_{61}	-392.42	38.25	-7.91	-1.51	1.87	-0.52				
	L_{61}-L_{62}	-423.40	54.80	-8.83	-1.51	1.87	-0.52				
	L_{62}-L_{63}	-297.20	199.08	-7.01	-1.58	1.16	-0.57				
	L_{63}-L_{64}	-201.12	26.81	-4.67	-1.58	1.16	-0.57				
	L_{64}-L_{65}	24.89	-109.69	0.14	-5.28	3.05	-5.14				
	L_{65}-L_{66}	139.96	-178.06	2.23	-6.10	-0.32	0.71				
	L_{66}-L_{67}	139.96	-178.06	2.23	-6.10	-0.32	0.71				
	L_{67}-L_{68}	47.96	-293.52	-0.50	-6.15	-0.24	0.96				
	L_{68}-L_{69}	-41.79	-343.26	-3.89	-16.66	0.26	1.80				
	L_{69}-L_{70}	-341.10	86.25	-13.40	-1.62	1.58	1.40				
	L_{70}-L_{71}	-423.40	54.80	-8.83	-1.51	1.87	-0.52				
	L_{71}-L_{72}	-201.18	152.50	-7.19	-1.62	1.63	-2.42				
	L_{72}-L_{73}	-147.72	149.48	0.00	0.00	-1.23	1.51				
	L_{73}-L_{74}	-147.72	149.48	0.00	0.00	-1.23	1.51				
	L_{74}-L_{75}	428.40	-26.47	0.00	0.00	18.65	-1.37				
	L_{75}-L_{76}	70.64	-27.55	0.00	0.00	-0.22	-0.47				
	L_{76}-L_{77}	194.51	-25.06	0.00	0.00	8.07	-0.55				
	L_{77}-L_{78}	194.51	-25.06	0.00	0.00	8.07	-0.55				
	L_{78}-L_{79}	-45.44	-80.85	-6.75	-7.31	2.15	0.74				
	L_{79}-L_{80}	-74.43	-5.53	0.00	0.00	2.86	2.59				

YY Axis Moments from STAAD

Location	Member	Max. Pos. Mom. Start (k-in)	Max. Pos. Mom. End (k-in)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F$_y$/S$_{xx}$	M_y (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor C_{mx}	Equivalent Mom. Factor C_{mx}	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	L_0-L_1	-10.53	-37.96	1.21	3332	0.99900394	2705.4	-0.204	0.52	0.52	-4.03	-14.79	-1.15	-4.22	-0.58	-2.13				
	L_1-L_2	-47.98	18.99	1.64	3332	0.99900394	2705.4	-0.136	0.55	0.55	-10.21	27.86	-5.33	2.11	0.74	-0.39				
	L_2-L_3	14.63	-16.06	2.01	4141	0.99911881	3294.8	0.397	0.76	0.76	17.56	3.85	2.79	-2.11	-3.23	-2.29				
	L_3-L_4	-7.23	1.76	4.65	-8.57	0.00	0.00	0.00	0.00	0.00	-45.12	56.05	-0.80	0.20	0.52	-0.95				
	L_4-L_5	-34.33	15.58	19.01	-2.57	0.00	0.00	0.00	0.00	0.00	30.99	-72.36	3.61	1.17	0.81	0.24				
	L_5-L_6	31.51	10.52	7.26	2.15	0.00	0.00	0.00	0.00	0.00	-16.55	61.63	3.50	1.17	0.81	0.24				
	L_6-L_7	89.98	-32.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	118.97	-41.98	12.04	-3.33	-2.33	-0.68				
	L_7-L_8	0.00	0.00	12.53	15.93	0.00	0.00	0.00	0.00	0.00	41.29	71.97	68.43	106.48	305.4	355.44				
	L_8-L_9	0.00	0.00	1.39	1.77	0.00	0.00	0.00	0.00	0.00	43.90	-20.10	62.62	34.75	158.2	158.16				
	L_9-L_{10}	-16.16	12.48	2.57	-3.70	0.00	0.00	0.00	0.00	0.00	-29.91	46.27	-2.65	1.39	-0.29	-0.63				
	L_{10}-L_{11}	0.54	-17.82	1.84	-3.70	0.00	0.00	0.00	0.00	0.00	3.07	-48.27	-2.08	-15.51	233.3	233.26				
	L_{11}-L_{12}	-19.07	3.10	0.72	-4.77	0.00	0.00	0.00	0.00	0.00	-101.68	102.64	-108.92	85.59	321.7	321.70				
	L_{12}-L_{13}	-0.62	-2.30	-3.05	-1.39	0.00	0.00	0.00	0.00	0.00	-135.86	32.14	-35.04	19.38	313.3	313.34				
	L_{13}-L_{14}	38.12	19.03	-2.21	-2.40	0.00	0.00	0.00	0.00	0.00	15.79	75.42	49.43	28.99	375.5	375.47				
	L_{14}-L_{15}	-23.01	-2.07	2.21	-1.37	0.00	0.00	0.00	0.00	0.00	-86.56	75.42	-36.25	-73.30	302.9	302.95				
	L_{15}-L_{16}	-9.68	-21.74	7.78	4.99	0.00	0.00	0.00	0.00	0.00	-125.74	-86.31	-87.91	-28.42	213.3	213.34				
	L_{16}-L_{17}	-1.58	-17.49	3.24	-0.94	-2.21	-0.35	0.68	0.68	0.68	-45.14	-42.96	-31.74	-11.13	157.1	157.14				
	L_{17}-L_{18}	-4.51	-20.43	-0.18	-1.94	0.21	-0.35	0.68	0.68	0.68	-14.48	-20.14	-5.47	-2.68	146.1	146.13				
	L_{18}-L_{19}	-3.14	-0.71	-0.25	-0.06	2.26	0.51	0.68	0.68	0.68	-2.29	-0.51	20.20	3.04	29.94	8.94				
	L_{19}-L_{20}	-10.65	-36.98	-5.18	-18.01	0.00	0.00	0.00	0.00	0.00	-28.05	-97.45	-16.21	-56.34	126.9	125.92				
	L_{20}-L_{21}	-44.64	-36.98	-5.18	-18.01	0.00	0.00	0.00	0.00	0.00	-48.26	-97.45	-16.48	-56.34	127.0	126.04				
	L_{21}-L_{22}	32.28	38.10	-4.91	-16.36	-0.33					34.26	100.34	15.62	53.13	126.9	125.92				
	L_{22}-L_{23}	-42.26	-38.10	-4.91	-16.36	-0.33					-45.26	100.34	-15.48	-53.13	127.0	126.04				
	L_{23}-L_{24}	25.75	38.82	-5.02	-16.86	0.00	0.00	0.00	0.00	0.00	27.77	102.26	16.01	54.72	126.9	125.92				
	L_{24}-L_{25}	-23.39	-8.28	-0.87	-0.65	0.00	0.00	0.00	0.00	0.00	-73.67	25.08	21.10	-8.54	385.1	385.09				
	L_{25}-L_{26}	-30.63	-13.86	-0.87	-0.65	0.00	0.00	0.00	0.00	0.00	-101.48	39.52	27.04	-11.14	425.1	425.08				
	L_{26}-L_{27}	25.54	-1.39	1.02	-7.97	0.00	0.00	0.00	0.00	0.00	91.50	29.35	48.76	15.07	428.2	428.23				
	L_{27}-L_{28}	-73.42	-46.10	5.90	1.26	0.00	0.00	0.00	0.00	0.00	-299.65	-28.90	-87.78	-73.71	330.3	330.27				
	L_{28}-L_{29}	24.79	113.83	5.94	-1.29	0.00	0.00	0.00	0.00	0.00	135.86	32.14	35.04	19.38	313.3	313.34				
	L_{29}-L_{30}	43.26	-20.15	0.39	-5.05	0.00	0.00	0.00	0.00	0.00	47.85	10.98	-45.05	43.70	229.6	229.58				
	L_{30}-L_{31}	-36.98	-17.30	0.39	-5.05	0.00	0.00	0.00	0.00	0.00	-44.38	16.15	-55.10	53.46	229.6	229.58				
	L_{31}-L_{32}	-121.30	-36.36	-18.28	-49.11	0.00	0.00	0.00	0.00	0.00	-294.09	-243.19	-323.60	-140.93	1490.0	1490.01				
	L_{32}-L_{33}	63.81	-73.47	57.22	-76.43	0.00	0.00	0.00	0.00	0.00	83.97	330.77	431.94	200.03	1490.0	1490.01				
	L_{33}-L_{34}	-60.59	60.35	-45.22	60.39	0.00	0.00	0.00	0.00	0.00	-79.75	-330.77	-431.94	-200.03	1490.0	1490.01				
	L_{34}-L_{35}	-49.43	-47.54	-5.04	-1.38	0.00	0.00	0.00	0.00	0.00	-64.92	-27.44	-84.92	-39.61	507.36	2244.6				
	L_{35}-L_{36}	0.00	0.00	10.76	7.54	0.00	0.00	0.00	0.00	0.00	-127.51	-338.62	-104.19	-92.28	444.92	369.61				
	L_{36}-L_{37}	0.00	0.00	10.76	7.54	0.00	0.00	0.00	0.00	0.00	-127.51	-338.62	-104.19	-92.28	444.92	369.61				
	L_{37}-L_{38}	0.00	0.00	10.76	7.54	0.00	0.00	0.00	0.00	0.00	-60.42	-27.44	-84.92	-39.61	507.36	2244.6				
	L_{38}-L_{39}	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.83	-2.95	0.00	-0.77	0.00	0.00				
	L_{39}-L_{40}	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.88	-3.84	29.01	-5.51	327.4	270.63				
	L_{40}-L_{41}	-13.53	7.17	-2.16	-4.53	0.00	0.00	0.00	0.00	0.00	17.59	-9.32	37.71	-19.97	423.9	349.72				
	L_{41}-L_{42}	11.94	-7.19	-4.87	-5.10	0.00	0.00	0.00	0.00	0.00	-47.32	-31.52	10.89	-26.99	180.6	180.57				
	L_{42}-L_{43}	-43.80	24.14	-1.46	1.43	-0.15	-0.68	0.68	0.68	0.68	-65.49	59.35	33.40	18.60	180.6	180.57				
	L_{43}-L_{44}	-13.18	12.91	-1.58	6.15	0.00	0.00	0.00	0.00	0.00	-25.70	32.14	18.07	10.12	180.6	180.57				
	L_{44}-L_{45}	-12.86	-6.46	-0.60	-0.61	0.00	0.00	0.00	0.00	0.00	-25.70	15.52	-14.45	8.66	180.6	180.57				
	L_{45}-L_{46}	-22.87	29.57	2.03	-11.89	0.00	0.00	0.00	0.00	0.00	-47.25	49.52	-2.54	3.29	0.23	-1.32				
	L_{46}-L_{47}	-28.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-59.28	0.00	0.00	0.00	0.00	0.00				
	L_{47}-L_{48}	35.52	19.66	8.85	1.18	0.00	0.00	0.00	0.00	0.00	47.73	52.41	-18.72	30.52	180.6	180.57				
	L_{48}-L_{49}	-22.63	9.58	-2.16	-4.53	0.00	0.00	0.00	0.00	0.00	-31.41	-20.99	-29.01	-18.39	180.6	180.57				
	L_{49}-L_{50}	-10.47	39.70	0.23	0.27	0.45	0.31				8.12	56.88	-4.80	57.70	180.6	180.57				
	L_{50}-L_{51}	-4.25	17.36	2.84	0.95	0.00	0.00	0.00	0.00	0.00	53.22	67.72	68.63	-28.02	229.6	229.58				
	L_{51}-L_{52}	-22.68	-9.84	-1.84	-5.08	0.00	0.00	0.00	0.00	0.00	-31.41	-20.99	-29.01	-18.39	180.6	180.57				
	L_{52}-L_{53}	0.00	0.00	7.52	-1.44	0.00	0.00	0.00	0.00	0.00	121.23	16.28	137.33	13.18	383.9	383.93				
	L_{53}-L_{54}	0.00	0.00	7.52	-1.44	0.00	0.00	0.00	0.00	0.00	121.23	16.28	137.33	13.18	383.9	383.93				
	L_{54}-L_{55}	-5.14	16.53	-1.67	-13.71	0.00	0.00	0.00	0.00	0.00	53.22	67.72	68.63	-28.02	229.6	229.58				
	L_{55}-L_{56}	15.44	-29.36	-2.16	-4.53	0.00	0.00	0.00	0.00	0.00	53.22	67.72	68.63	-28.02	229.6	229.58				
	L_{56}-L_{57}	-40.87	21.20	1.48	-7.54	0.00	0.00	0.00	0.00	0.00	-178.99	110.60	-87.24	48.34	292.3	292.29				
	L_{57}-L_{58}	-28.12	-27.47	-2.41	-2.47	0.00	0.00	0.00	0.00	0.00	-116.15	-64.04	-73.58	-40.58	239.9	239.93				
	L_{58}-L_{59}	-72.28	-28.98	5.81	-2.47	0.00	0.00	0.00	0.00	0.00	-275.20	-1.17	-100.15	57.80	428.23	354.42				
	L_{59}-L_{60}	-33.61	105.49	-1.00	-5.36	0.00	0.00	0.00	0.00	0.00	80.44	205.79	4.37	-34.39	420.1	420.12				
	L_{60}-L_{61}	-43.87	43.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-87.31	87.31	0.00	0.00	0.00	0.00				
	L_{61}-L_{62}	-27.46	-10.80	1.54	-4.21	0.00	0.00	0.00	0.00	0.00	-75.68	-62.45	-12.85	-29.92	342.6	342.61				
	L_{62}-L_{63}	-24.56	-10.80	1.54	-4.21	0.00	0.00	0.00	0.00	0.00	-75.68	-62.45	-12.85	-29.92	342.6	342.61				
	L_{63}-L_{64}	-14.53	21.56	16.00	8.69	0.00	0.00	0.00	0.00	0.00	-39.79	47.74	63.65	19.85	167.9	167.91				
	L_{64}-L_{65}	-25.83	4.14	2.12	-5.14	0.00	0.00	0.00	0.00	0.00	-39.79	47.74	63.65	19.85	167.9	167.91				
	L_{65}-L_{66}	0.28	-1.29	3.76	-17.08	0.00	0.00	0.00	0.00	0.00	-34.70	-16.40	-74.45	13.10	133.1	133.11				
	L_{66}-L_{67}	-30.47	22.05	0.81	-5.79	0.00	0.00	0.00	0.00	0.00	-38.60	115.70	29.18	66.21	133.1	133.11				
	L_{67}-L_{68}	-18.41	5.68	2.14	-5.79	0.00	0.00	0.00	0.00	0.00	-38.60	115.70	29.18	66.21	133.1	133.11				
	L_{68}-L_{69}	-18.41	5.68	2.14	-5.79	0.00	0.00	0.00	0.00	0.00	-141.05	62.45	-12.85	-29.92	342.6	342.61				
	L_{69}-L_{70}	-24.56	-10.80	1.54	-4.21	0.00	0.00	0.00	0.00	0.00	-75.68	-62.45	-12.85	-29.92	342.6	342.61				
	L_{70}-L_{71}	-27.46	-10.80	1.54	-4.21	0.00	0.00	0.00	0.00	0.00	-75.68	-62.45	-12.85	-29.92	342.6	342.61				
	L_{71}-L_{72}	-24.56	-10.80	1.54	-4.21	0.00	0.00	0.00	0.00	0.00	-75.68	-62.45	-12.85	-29.92	342.6	342.61				
	L_{72}-L_{73}	-14.53	21.56	16.00	8.69	0.00	0.00	0.00	0.00	0.00	-39.79	47.74	63.65	19.85	167.9	167.91				
	L_{73}-L_{74}	-25.83	4.14	2.12	-5.14	0.00	0.00	0.00	0.00	0.00	-39.79	47.74	63.65	19.85	167.9	167.91				
	L_{74}-L_{75}	0.28	-1.29	3.76	-17.08	0.00	0.00	0.00	0.00	0.00	-34.70	-16.40	-74.45	13.10	133.1	133.11				
	L_{75}-L_{76}	-30.47	22.05	0.81	-5.79	0.00	0.00	0.00	0.00	0.00	-38.60	115.70	29.18	66.21	133.1	133.11				
	L_{76}-L_{77}	-18.41	5.68	2.14	-5.79	0.00	0.00	0.00	0.00	0.00	-38.60	115.70	29.18	66.21	133.1	133.11				
	L_{77}-L_{78}	-24.56	-10.80	1.54	-4.21	0.00	0.00	0.00	0.00	0.00	-141.05	62.45	-12.85	-29.92	342.6	342.61				
	L_{78}-L_{79}	-27.46	-10.80	1.54	-4.21	0.00	0.00	0.00	0.00	0.00	-75.68	-62.45	-12.85	-29.92	342.6	342.61				
	L_{79}-L_{80}	-24.56	-10.80	1.54	-4.21	0.00	0.00	0.00	0.00	0.00	-75.68	-62.45	-12.85	-29.92	342.6	342.61				

Tension

Location	Member	Yield Axial Portion	Yield Moment Portion	Yield Total	Yield Pass	Fracture Axial Portion	Fracture Moment Portion	Fracture Total	Fracture Pass
Structure 1	L_0-L_1	0.026	0.071	0.10	Yes	0.015	0.043	0.06	Yes
	L_1-L_2	0.026	0.096	0.13	Yes	0.138	0.054	0.21	Yes
	L_2-L_3	0.026	0.033	0.06	Yes	0.139	0.036	0.18	Yes
	L_3-L_4	0.026	0.129	0.042	Yes	0.166	0.054	0.12	Yes
	L_4-L_5	0.026	0.071	0.10	Yes	0.015	0.043	0.06	Yes
	L_5-L_6	0.026	0.096	0.13	Yes	0.138	0.054	0.21	Yes
	L_6-L_7	0.026	0.033	0.06	Yes	0.139	0.036	0.18	Yes
	L_7-L_8	0.026	0.129	0.042	Yes	0.166	0.054	0.12	Yes
	L_8-L_9	0.026	0.071	0.10	Yes	0.015	0.043	0.06	Yes
	L_9-L_{10}	0.026	0.096	0.13	Yes	0.138	0.054	0.21	Yes
	L_{10}-L_{11}	0.026	0.033	0.06	Yes	0.139	0.036	0.18	Yes
	L_{11}-L_{12}	0.026	0.129	0.042	Yes	0.166	0.054	0.12	Yes
	L_{12}-L_{13}	0.026	0.071	0.10	Yes	0.015	0.043	0.06	Yes
	L_{13}-L_{14}	0.026	0.096	0.13	Yes	0.138	0.054	0.21	Yes
	L_{14}-L_{15}	0.026	0.033	0.06	Yes	0.139	0.036	0.18	Yes
	L_{15}-L_{16}	0.026	0.129	0.042	Yes	0.

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1998

* MCEB Table 6.6.2-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Min) End (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	U_1–L_1	-29.87	-49.03	0.83	-9.94	-1.74	2.76				
	U_1–L_2	-9.08	15.18	0.80	-0.84	-2.42	2.41				
	U_1–L_3	10.50	-9.70	0.76	-2.00	2.45					
	U_1–L_4	33.45	-34.40	0.91	-1.11	-2.28	2.44				
	U_1–L_5	41.64	-42.40	0.90	0.00	16.57	-16.89				
	U_2–L_2	45.56	-51.10	0.00	0.00	37.32	-38.01				
	U_2–L_3	16.50	-16.58	0.00	0.00	28.44	-32.56				
	U_2–L_4	91.24	-101.87	0.00	0.00	46.12	-49.09				
	U_2–L_5	-20.57	21.23	0.00	0.00	0.31	-0.30				
	U_3–L_3	53.53	-53.26	0.00	0.00	0.00	-0.00				
	U_3–L_4	-88.47	88.21	0.00	0.00	-3.37	3.22				
	U_3–L_5	-91.11	90.85	0.00	0.00	-3.50	3.33				
	U_4–L_4	-79.57	78.39	0.00	0.00	-3.33	3.51				
	U_4–L_5	-49.26	60.16	0.00	0.00	-3.88	3.96				
	U_5–L_5	-29.77	34.66	0.00	0.00	-4.16	4.20				
Structure 2	L_1–U_1	-1.50	-2.65	-0.47	0.52	3.07	-3.10				
	L_1–U_2	34.13	-36.55	-0.46	0.45	19.41	-21.43				
	L_2–U_2	46.23	-55.85	-0.32	0.33	2.98	-3.09				
	L_2–U_3	110.44	-114.63	-0.44	0.44	4.00	-4.20				
	L_3–U_3	121.36	-131.26	-0.39	0.39	4.60	-4.79				
	L_3–U_4	-134.59	-173.50	-0.22	0.31	4.36	-5.28				
	L_4–U_4	-114.23	168.97	0.15	-0.34	-5.28	6.36				
	L_4–U_5	-123.79	131.39	1.16	-1.22	-4.77	5.21				
	L_5–U_5	-113.46	113.46	-1.30	1.30	-4.63	4.63				
Structure 3	L_1–U_1	-56.01	62.13	0.80	-0.84	-2.20	2.54				
	L_1–U_2	-34.05	39.70	0.80	-0.84	-2.29	2.54				
	L_2–U_2	-7.04	12.29	0.92	-0.96	-1.88	2.10				
	L_2–U_3	15.85	-15.59	0.76	-0.81	-1.77	1.83				
	L_3–U_3	38.86	-44.94	0.43	-0.45	-0.98	0.97				
	L_3–U_4	86.91	-96.07	0.00	0.00	3.52	-3.52				
	L_4–U_4	-155.08	159.47	0.00	0.00	3.99	-4.79				
	L_4–U_5	141.23	-149.41	0.00	0.00	5.17	-5.39				
	L_5–U_5	-192.55	-192.83	0.00	0.00	4.59	-4.59				
	U_1–L_1	47.47	-146.81	0.00	0.00	2.96	-3.20				
	U_1–L_2	203.52	-203.17	0.00	-0.18	6.62	-6.74				
	U_2–L_2	60.05	29.61	0.00	0.00	0.97	-0.98				
	U_2–L_3	-159.89	162.81	1.08	-0.91	-6.75	6.72				
	U_3–L_3	-113.84	113.15	1.51	-1.44	-4.64	4.64				
	U_3–L_4	-130.37	127.18	0.66	-0.83	-7.62	7.53				
	U_4–L_4	-113.07	114.60	0.38	-0.72	-5.07	5.91				
	U_4–L_5	-67.70	67.44	0.34	-0.34	-2.70	2.70				
	U_5–L_5	-44.77	46.58	0.00	0.00	-2.30	2.47				
Structure 4	L_1–U_1	-30.30	-34.99	0.00	0.00	0.00	-0.00				
	L_1–U_2	-9.89	4.33	0.00	0.00	0.07	-0.06				
	L_2–U_2	22.65	25.72	0.08	0.00	2.10	-2.31				
	L_2–U_3	2.64	2.64	0.00	0.00	2.06	-2.31				
	L_3–U_3	66.57	-67.50	-0.10	0.16	3.67	-3.60				
	L_3–U_4	-70.00	-123.81	-0.35	0.35	3.70	-4.53				
	L_4–U_4	138.29	-139.04	-0.48	0.53	8.15	-8.15				
	L_4–U_5	129.54	-129.54	-0.45	0.45	7.11	-7.11				
	L_5–U_5	173.56	-176.28	-0.07	-0.23	7.92	-7.84				
	U_1–L_1	-2.25	-2.25	0.00	0.00	-0.12	0.12				
	U_1–L_2	-167.25	167.49	0.55	-0.52	6.63	6.63				
	U_2–L_2	-116.13	110.00	0.47	-0.91	-5.59	5.10				
	U_2–L_3	124.98	-123.74	-0.33	0.33	5.13	-5.13				
	U_3–L_3	-119.87	124.44	0.00	0.00	-3.65	3.57				
	U_3–L_4	79.40	-79.40	0.00	0.00	3.57	-3.57				
	U_4–L_4	-79.51	88.87	0.00	0.00	-3.54	3.61				
	U_4–L_5	-43.96	51.94	0.00	0.00	0.00	0.01				
	U_5–L_5	-28.50	31.04	0.00	0.00	0.00	0.00				
Structure 5	L_1–U_1	-5.58	1.82	-1.00	1.04	1.82	-2.16				
	L_1–U_2	55.25	-61.09	-0.78	0.80	2.87	-3.02				
	L_2–U_2	37.53	-37.53	-0.77	0.77	2.01	-2.01				
	L_2–U_3	137.10	-150.77	-1.04	1.05	4.96	-5.16				
	L_3–U_3	165.74	-206.85	-0.72	0.99	4.42	-5.82				
	L_3–U_4	-62.96	144.10	0.31	-0.65	-4.56	4.56				
	L_4–U_4	-109.90	113.02	0.47	-0.90	-3.94	4.31				
	L_4–U_5	96.29	96.29	0.00	0.00	4.98	-4.98				
	L_5–U_5	-38.43	-68.15	-0.35	-0.37	-2.19	2.35				
Structure 6	L_1–U_1	-31.46	34.15	-0.42	-0.42	-1.62	1.62				
	L_1–U_2	-2.76	8.97	0.43	-0.48	-2.88	2.95				
	L_2–U_2	25.90	-28.71	0.00	0.00	1.09	-1.16				
	L_2–U_3	29.60	-29.60	0.00	0.00	1.27	-1.27				
	L_3–U_3	79.40	-77.51	0.00	0.00	3.16	-3.49				
	L_3–U_4	-79.51	-125.94	0.00	0.00	3.54	-4.00				
	L_4–U_4	142.75	166.29	0.00	0.00	5.14	-5.97				
	L_4–U_5	-87.20	89.91	0.00	0.00	-4.11	4.38				
	L_5–U_5	-38.98	42.97	0.00	0.00	-3.83	3.93				
	U_1–L_1	94.27	-125.94	0.00	0.00	4.84	-5.68				
	U_1–L_2	92.31	-95.87	0.00	0.00	3.88	-3.97				
	U_2–L_2	142.75	166.29	0.00	0.00	5.14	-5.97				
	U_2–L_3	37.53	-58.82	0.00	0.00	1.11	-2.01				
	U_3–L_3	-87.20	89.91	0.00	0.00	-4.11	4.38				
	U_3–L_4	-48.49	45.44	0.00	0.00	-3.04	3.09				
	U_4–L_4	-38.98	42.97	0.00	0.00	-3.83	3.93				
	U_4–L_5	-39.90	40.31	0.00	0.00	-1.63	1.73				
	U_5–L_5	-37.48	38.74	-1.02	1.19	2.42	-2.52				
	U_5–L_5	-10.30	11.14	-1.07	1.18	1.80	-2.36				
	U_6–L_5	3.52	-11.96	-0.88	0.84	3.57	-3.44				
	U_6–L_6	44.79	-53.88	-0.50	0.77	2.37	-3.54				

ZZ Axis Moments from STAAD

Location	Member	Max. Neg. Mom. Start (k-ft)	Max. Neg. Mom. End (k-ft)	Shear Start (k)	Shear End (k)	S_{bb} (in^3)	S_b (in^3)	S_z (in^3)	J (in^4)	I_{xx} (in^4)	Shape Factor f	M_p (k-in)	Formula 1.8 Term * F$_y$/S$_{bb}$	M_u (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor $C_{b(x)}$	$C_{b(m)}$
Structure 1	U_1–L_1	-22.67	45.33	72.67	117.62	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.618	0.35	0.35
	U_1–L_2	37.32	-3.28	-58.92	66.81	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.892	0.25	0.25
	U_1–L_3	81.96	-51.77	-22.01	20.76	35.06	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.722	0.31	0.31
	U_1–L_4	-7.37	-12.71	7.01	14.96	0.00	0.00	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.924	0.23	0.23
	U_1–L_5	54.13	-55.19	9.97	5.01	0.00	0.00	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.981	0.21	0.21
	U_2–L_2	55.66	-55.66	0.00	0.00	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.908	0.24	0.24
	U_2–L_3	59.22	-66.42	140.09	-149.86	15.4	19.37	19.31	29.87	3	907.0	1.54	986	1.5	958.8	-0.955	0.23	0.23
	U_3–L_3	72.28	-72.29	132.99	-141.71	24.4	20.80	20.67	34.66	4	1076.0	1.67	1144	1.5	1029.6	-0.943	0.22	0.22
	U_3–L_4	118.81	-132.43	218.53	-238.79	18.5	18.45	18.36	30.78	3	1020.9	1.67	1016	1.5	913.3	-0.915	0.23	0.23
	U_3–L_5	-26.74	27.59	-25.79	21.69	107.1	107.13	107.11	162.71	26	2098.9	1.52	3269	1.5	5302.3	-0.614	0.35	0.35
	U_4–L_4	-175.84	202.65	-264.21	304.73	33.1	33.05	32.91	54.51	14	1408.8	1.65	1799	1.5	1636.0	-0.867	0.25	0.25
	U_4–L_5	-115.01	114.67	-180.79	177.48	39.5	39.52	39.44	58.46	14	1309.7	1.65	1929	1.5	1758.2	-0.982	0.21	0.21
	U_5–L_5	-118.44	161.28	-196.86	263.18	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.772	0.28	0.28
	U_1–L_1	-103.44	101.90	-168.46	170.31	21.1	21.09	21.09	35.46	10	1137.6	1.68	1170	1.5	1044.0	-0.989	0.20	0.20
	U_1–L_2	-64.04	78.21	-139.66	155.86	17.2	17.24	17.24	26.54	2	824.7	1.54	876	1.5	853.4	-0.896	0.24	0.24
	U_1–L_3	-38.71	55.05	-59.23	83.60	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.970	0.21	0.21
	U_1–L_4	-11.20	6.68	57.81	-63.81	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.906	0.24	0.24
	U_1–L_5	35.50	-38.76	60.43	-63.95	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.923	0.23	0.23
	U_2–L_2	53.78	-66.11	118.23	-132.87	19.4	19.37	19.37	29.87	3	907.0	1.54	986	1.5	958.8	-0.890	0.24	0.24
	U_2–L_3	-135.07	-140.42	231.22	-240.64	39.5	39.09	39.09	53.51	14	1157.1	1.65	1766	1.5	1737.0	-0.993	0.21	0.21
	U_2–L_4	150.20	-163.13	247.54	-263.98	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.938	0.22	0.22
	U_2–L_5	-111.17	112.96	-163.72	167.38	38.6	38.63	38.63	57.23	14	1522.1	1.65	2093	1.5	1902.6	-0.994	0.20	0.20
	U_3–L_3	98.87	-84.14	1098	1.5	1068.2	-0.964	0.24	0.24	-12.22	76.70	0.92	0.75	-8.61	-0.93	-0.93	-0.93
	U_3–L_4	-37.39	34.60	-88.61	85.67	0.00	0.00	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.805	0.28	0.28
	U_3–L_5	8.26	-8.64	-16.95	18.94	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.925	0.23	0.23
	U_4–L_4	6.84	-7.25	-15.96	16.44	0.00	0.00	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.982	0.21	0.21
	U_4–L_5	3.87	-4.70	9.39	-10.61	0.00	0.00	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.970	0.21	0.21
	U_5–L_5	0.00	35.28	-35.27	0.00	20.80	20.67	34.64	5	1037.5	1.67	1143	1.5	1029.6	-0.941	0.22	0.22
	U_1–L_1	-207.60	-207.31	376.65	-376.65	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.796	0.28	0.28
	U_1–L_2	-184.24	-298.56	403.61	-432.96	68.66	14	1479.6	1.60	2266	1.5	2129.0	-0.952	0.22	0.22	-124.75	-58.60	0.00	0.00	1.60	-0.28
	U_1–L_3	-216.15	-296.08	285.16	-297.34	43.0	43.04	43.04	43.76	70.66	16	1515.6	1.53	2324	1.5	2312.1	-0.796	0.28	0.28
	U_1–L_4	-264.54	-267.66	393.63	-395.56	39.2	39.17	39.11	63.33	14	1392.6	1.62	2090	1.5	1938.9	-0.995	0.20	0.20
	U_1–L_5	-78.06	-77.39	75.19	73.72	112.2	112.22	112.22	169.49	34	1949.0	1.52	3049	1.5	3004.7	-0.614	0.35	0.35
	U_2–L_2	-186.78	193.89	-339.43	342.62	39.2	39.17	39.11	63.33	14	1392.6	1.62	2090	1.5	1938.9	-0.991	0.20	0.20
	U_2–L_3	-125.58	134.55	-224.59	233.57	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.789	0.28	0.28
	U_2–L_4	-318.19	312.21	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.981	0.21	0.21
	U_2–L_5	-139.66	-134.90	-249.84	264.16	39.8	38.83	38.83	59.23	6	1264.6	1.53	1955	1.5	1922.1	-0.931	0.23	0.23
	U_3–L_3	-87.30	84.47	-128.68	125.85	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.789	0.28	0.28
	U_3–L_4	-58.20	60.95	-103.03	108.65	17.2	17.24	17.24	26.54	2	824.7	1.54	876	1.5	853.4	-0.948	0.22	0.22
	U_3–L_5	-39.23	40.49	-63.45	67.74	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.953	0.23	0.23
	U_4–L_4	-4.79	5.63	-3.37	4.51	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.852	0.26	0.26
	U_4–L_5	27.91	-31.32	51.63	-55.75	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.915	0.23	0.23
	U_5–L_5	51.81	-54.78	92.00	-99.91	17.2	17.24	17.24	26.54	2	824.7	1.54	876	1.5	853.4	-0.921	0.23	0.23
	U_1–L_1	84.61	-84.43	158.07	-157.95	18.7	18.71	18.61	31.48	8	970.0	1.68	1139	1.5	926.1	-0.999	0.20	0.20
	U_1–L_2	-144.05	-148.69	258.19	-261.46	36.8	36.83	36.83	56.23	6	1264.6	1.53	1955	1.5	1922.1	-0.931	0.23	0.23
	U_1–L_3	170.37	-170.39	338.74	-339.65	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.997	0.20	0.20
	U_1–L_4	-212.17	-209.79	212.17	209.79	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.772	0.28	0.28
	U_1–L_5	-224.81	-233.65	380.67	-381.95	39.2	39.17	39.11	63.33	14	1392.6	1.62	2090	1.5	1938.9	-0.997	0.20	0.20
	U_2–L_2	-164.15	-153.84	-267.02	-257.78	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.789	0.28	0.28
	U_2–L_3	-155.83	161.77	-239.18	245.12	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.981	0.21	0.21
	U_2–L_4	-239.16	236.78	-239.16	236.78	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.981	0.21	0.21
	U_2–L_5	-200.73	207.67	-346.68	347.10	39.2	39.17	39.11	63.33	14	1392.6	1.62	2090	1.5	1938.9	-0.999	0.20	0.20
	U_3–L_3	-141.84	125.17	-259.88	242.46	43.2	43.24	43.16	70.66	19	1515.6	1.63	2324	1.5	2140.4	-0.933	0.23	0.23
	U_3–L_4	-153.84	-150.67	-267.78	-264.61	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.789	0.28	0.28
	U_3–L_5	-382.48	367.27	-382.48	367.27	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.789	0.28	0.28
	U_4–L_4	-185.83	181.77	-259.88	242.46	43.2	43.24	43.16	70.66	19	1515.6	1.63	2324	1.5	2140.4	-0.933	0.23	0.23
	U_4–L_5	-141.84	125.17	-259.88	242.46	43.2	43.24	43.16	70.66	19	1515.6	1.63	2324	1.5	2140.4	-0.933	0.23	0.23
	U_5–L_5	-153.84	-150.67	-267.78	-264.61	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.789	0.28	0.28
	U_1–L_1	-155.83	161.77	-239.18	245.12	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.981	0.21	0.21
	U_1–L_2	-239.16	236.78	-239.16	236.78	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.981	0.21	0.21
	U_1–L_3	-200.73	207.67	-346.68	347.10	39.2	39.17	39.11	63.33	14	1392.6	1.62	2090	1.5	1938.9	-0.999	0.20	0.20
	U_1–L_4	-141.84	125.17	-259.88	242.46	43.2	43.24	43.16	70.66	19	1515.6	1.63	2324	1.5	2140.4	-0.933	0.23	0.23
	U_1–L_5	-153.84	-150.67	-267.78	-264.61	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.789	0.28	0.28
	U_1–L_1	-119.87	124.44	0.00	0.00	-3.65	3.57											
	U_1–L_2	79.40	-79.40	0.00	0.00	3.57	-3.57											
	U_2–L_2	-79.51	88.87	0.00	0.00	-3.54	3.61											
	U_2–L_3	-43.96	51.94	0.00	0.00	0.00	0.01											
	U_3–L_3	-28.50	31.04	0.00	0.00	0.00	0.00											
	U_3–L_4	-5.58	1.82	-1.00	1.04	1.82	-2.16											
	U_3–L_5	55.25	-61.09	-0.78	0.80	2.87	-3.02											
	U_4–L_4	37.53	-37.53	-0.77	0.77	2.01	-2.01											
	U_4–L_5	137.10	-150.77	-1.04	1.05	4.96	-5.16											
	U_5–L_5	165.74	-206.85	-0.72	0.99	4.42	-5.82											
	U_1–L_1	-62.96	144.10	0.31	-0.65	-4.56	4.56											
	U_1–L_2	-109.90	113.02	0.47	-0.90	-3.94	4.31											
	U_2–L_2	96.29	96.29	0.00	0.00	4.98	-4.98											
	U_2–L_3	-38.43	-68.15	-0.35	-0.37	-2.19	2.35											
	U_3–L_3	-31.46	34.15	-0.42	-0.42	-1.62	1.62											
	U_3–L_4	-2.76	8.97	0.43	-0.48	-2.88	2.95											
	U_4–L_4	25.90	-28.71	0.00	0.00	1.09	-1.16											
	U_4–L_5	29.60	-29.60	0.00	0.00	1.27	-1.27											
	U_5–L_5	79.40	-77.51	0.00	0.00	3.16	-3.49											
	U_1–L_1	-125.94	0.00	0.00	4.84	-5.68												
	U_1–L_2	-95.87	0.00	0.00	3.88	-3.97												
	U_2–L_2	166.29	0.00	0.00	5.14	-5.97												
	U_2–L_3	-58.82	0.00	0.00	1.11	-2.01												
	U_3–L_3	89.91	0.00	0.00	4.11	4.38												
	U_3–L_4	45.44	0.00	0.00	3.04	3.09												
	U_4–L_4	42.97	0.00	0.00	3.83	3.93												
	U_4–L_5	40.31	0.00	0.00	1.63	1.73												
	U_5–L_5	38.74	-1.02	1.19	2.42	-2.52												
	U_5–L_5	11.14	-1.07	1.18	1.80	-2.36												
	U_6–L_5	-11.96	-0.88	0.84	3.57	-3.44												
	U_6–L_6	-53.88	-0.50	0.77	2.37	-3.54												

YY Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Min) End (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	U_1–L_1	-105.35	-33.79	1.43	0.46	-8.53	-2.73				
	U_1–L_2	12.88	4.13	-76.73	-24.61	0.00	0.00				
	U_1–L_3	13.02	5.50	-10.68	-4.05	0.00	0.00				
	U_1–L_4	8.96	-0.05	5.26	-7.04	0.00	0.00				
	U_1–L_5	-13.10	-7.04	0.00	0.00	0.00	0.00				
	U_2–L_2	-34.34	-2.06	-0.82	-1.41	0.78	1.66				
	U_2–L_3	0.00	0.00	0.00	0.00	0.00	0.00				
	U_2–L_4	-115.93	-35.77	0.00	0.00

Axial - Al2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.60

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Min) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	U_1-L_1	-12.57	3.38	0.44	0.47	0.59	-0.24				
	U_1-L_2	-1.68	-7.06	-0.99	0.35	0.32	-0.09				
	U_1-L_3	-0.09	-8.38	-0.86	0.21	0.41	-0.13				
	U_1-L_4	9.78	-11.76	-0.88	-0.93	0.01	-0.37				
	U_2-L_1	-10.33	17.60	-1.47	-13.21	2.60	-0.60				
	U_2-L_2	-26.83	58.49	-2.05	3.51	0.00	0.00				
	U_2-L_3	-39.79	74.23	-4.06	3.51	0.00	0.00				
	U_2-L_4	-6.35	88.66	-1.00	4.28	0.00	0.00				
	L_1-L_2	-9.60	109.55	0.27	3.75	0.86	0.45				
	L_2-L_3	-74.80	151.68	-3.18	2.82	0.00	0.00				
	L_3-L_4	-56.84	54.78	-1.56	2.29	0.00	0.00				
	L_1-U_2	-20.30	13.62	-2.25	-20.30	13.62	-2.25				
	L_2-U_3	-55.25	39.07	-2.16	2.10	0.00	0.00				
	L_3-U_4	-20.99	7.38	-1.53	0.30	0.00	0.00				
	U_1-U_2	-1.19	-3.26	-0.29	-0.86	0.86	-0.29				
	U_2-U_3	-19.00	4.09	-1.34	1.06	0.24	-0.21				
	U_3-U_4	-26.64	12.99	-1.50	1.21	0.23	-0.20				
	U_1-L_2	-89.35	58.15	-3.26	2.80	0.34	-0.29				
	L_2-U_2	-93.27	61.38	-3.31	3.01	0.23	-0.29				
	U_2-L_3	-105.39	89.05	-3.39	2.94	0.17	-0.18				
	L_3-U_3	-82.31	86.26	-4.25	3.90	0.94	-0.88				
	U_3-L_4	-88.17	71.03	-3.85	3.55	0.85	-0.77				
	L_1-U_1	-81.24	62.98	-3.56	2.67	1.04	-0.85				
	U_1-L_1	-16.79	11.57	-1.55	1.85	-4.59	0.00				
	L_1-U_2	-17.36	7.00	-1.38	0.59	0.52	-0.43				
	U_2-L_2	-11.46	-11.46	-1.13	0.00	0.00	0.00				
	L_2-U_3	7.43	-23.92	-0.91	-3.11	0.36	-0.69				
	U_3-L_3	-44.32	35.88	-2.13	0.82	0.00	0.00				
	L_3-U_4	-56.39	68.66	-3.25	-29.29	29.41	0.00				
	U_1-U_3	-88.55	73.83	-3.61	1.78	0.00	0.00				
	U_2-L_3	-76.40	58.30	-2.69	2.75	0.00	0.00				
	L_2-U_4	-108.38	116.68	-4.38	4.25	0.00	0.00				
	U_3-L_4	-154.28	139.71	-5.27	4.83	0.48	-0.16				
	U_1-L_3	-86.83	74.26	-3.61	2.67	0.00	0.00				
	L_1-U_3	-24.73	100.98	-1.60	3.99	1.26	-0.79				
	U_2-L_4	-98.28	3.79	-4.24	4.29	0.14	-0.33				
	U_1-L_4	-74.14	95.51	-4.40	5.00	0.85	-0.37				
	L_1-U_4	-55.46	68.65	-2.68	2.18	0.69	0.20				
Structure 2	U_1-L_1	-32.97	39.97	-2.11	1.63	0.35	0.20				
	L_1-U_2	-10.32	4.39	-1.39	0.00	0.04	-0.43				
	U_2-L_2	-6.27	2.08	-1.13	0.00	0.00	0.00				
	L_2-U_3	-17.08	16.16	-1.44	1.19	0.21	0.07				
	U_3-L_3	-26.39	26.39	-2.38	2.38	0.00	0.00				
	L_3-U_4	-55.69	65.14	-3.14	2.58	0.63	0.25				
	U_1-U_2	-49.22	80.41	-4.46	3.99	0.58	0.08				
	U_2-L_3	-40.16	35.94	-2.19	1.74	0.00	0.00				
	L_2-U_4	-106.11	102.57	-5.30	4.70	0.52	-0.46				
	U_3-L_4	-70.11	100.53	-3.84	4.29	0.14	-0.80				
	U_1-L_3	-47.87	128.15	-2.01	4.86	1.19	-0.55				
	L_1-U_3	-73.91	73.91	-3.34	3.34	0.00	0.00				
	U_2-L_4	-89.53	99.33	-4.30	4.17	0.64	0.22				
	U_1-L_4	-86.54	82.57	-3.31	2.13	0.62	0.55				
	L_1-U_4	-60.17	67.66	-3.12	2.13	0.00	0.00				
	U_1-U_2	-64.52	64.52	-2.26	2.26	0.00	0.00				
	U_2-L_3	-38.92	20.55	-2.21	1.80	0.60	-0.50				
	L_2-U_4	-98.53	71.15	-3.69	3.07	0.80	-0.68				
	U_3-L_4	-70.40	69.24	-3.04	3.18	0.39	-0.33				
	U_1-L_3	-38.92	56.40	-3.03	2.23	0.39	-0.29				
	L_1-U_3	-28.11	12.70	-1.66	1.23	0.26	-0.20				
	U_2-L_4	-54.59	58.66	-3.32	3.34	0.00	0.00				
	U_1-L_4	-9.15	17.58	-1.44	0.28	0.00	0.00				
	L_1-U_4	-8.07	-18.30	-1.16	-6.33	-0.04	-0.44				
	U_1-U_2	-84.52	84.52	-2.26	2.26	0.00	0.00				
	U_2-L_3	-50.49	35.10	-2.21	2.14	0.00	0.00				
	L_2-U_4	-59.60	20.61	-2.73	1.55	0.00	0.00				
	U_3-L_4	-76.28	52.02	-3.50	2.41	0.00	0.00				
	U_1-L_3	-77.34	67.11	-2.75	3.17	0.00	0.00				
	L_1-U_3	-27.84	82.10	-2.84	3.79	0.00	0.00

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.83

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1998

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

Location	Member	ZZ Axis Moments from STAAD: Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Max) End (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	U_1-U_2	88.99	-88.04	-2.26	2.06	4.96	-5.18	-0.65	0.45	2.38	-2.03
	U_2-U_3	54.53	-54.53	-43.94	0.61	-2.66	-2.78	-8.68	0.13	0.51	-1.04
	U_3-U_4	-130.85	58.79	1.34	3.66	-5.50	-3.02	2.20	0.80	-0.90	-1.36
	U_4-U_5	-80.24	76.71	2.23	0.49	-3.45	-2.77	-0.72	-1.13	-1.66	-2.36
	U_5-U_6	-26.00	75.03	2.65	3.38	-4.47	-1.92	0.47	0.77	-1.36	-0.71
	U_6-U_7	19.49	179.90	2.94	2.98	-3.75	0.62	0.62	0.72	-4.27	0.17
	U_7-U_8	62.51	62.51	-0.76	0.76	-0.01	0.41	-2.80	-2.80	-0.01	0.41
	U_8-U_9	-71.27	837.90	-2.09	10.86	-0.74	1.03	-1.34	3.99	0.00	0.00
	U_9-U_{10}	624.45	-195.10	11.08	-4.46	0.00	0.00	3.57	-1.52	0.00	0.00
	U_{10}-U_{11}	71.48	-13.72	3.94	1.85	1.21	-4.17	0.28	0.49	0.23	-0.97
	U_{11}-U_{12}	9.72	-222.34	1.92	1.66	0.87	-4.71	0.49	0.39	0.26	-1.31
	U_{12}-U_{13}	35.40	-221.58	1.89	1.46	-1.26	-10.47	0.56	0.33	0.24	-2.90
	U_{13}-U_{14}	-120.52	-238.11	1.66	0.65	-3.76	-4.89	0.44	0.14	-0.62	-1.62
	U_{14}-U_{15}	-201.52	-422.66	1.10	0.17	-6.37	-4.27	0.36	-0.03	-1.84	-0.74
	U_{15}-U_{16}	-380.34	-263.67	1.50	0.86	-9.33	-5.41	0.32	0.20	-2.38	-1.60
	U_{16}-U_{17}	-227.22	-366.78	1.41	0.17	-6.37	-4.27	0.36	-0.03	-1.84	-0.74
	U_{17}-U_{18}	-353.05	-172.61	0.61	0.00	-6.74	-2.40	0.05	-0.04	-1.64	-0.73
	U_{18}-U_{19}	-227.07	-24.53	0.54	0.41	-7.60	-1.48	0.22	0.10	-2.08	-0.68
	U_{19}-U_{20}	-214.18	21.72	0.43	0.17	-4.95	-1.06	0.43	0.05	-1.35	-0.33
	U_{20}-U_{21}	-229.66	4.07	0.41	-0.47	-3.44	-1.34	0.06	-0.04	-1.34	-0.03
	U_{21}-U_{22}	419.98	-379.23	1.27	-0.53	-10.72	-2.22	0.23	-0.24	-2.93	-0.61
	U_{22}-U_{23}	-113.09	-299.12	-0.04	-1.49	-1.30	-7.25	0.00	0.18	-0.50	-1.31
	U_{23}-U_{24}	-433.77	-494.94	0.85	-0.79	-3.79	-5.77	0.19	-0.27	-1.04	-1.57
	U_{24}-U_{25}	-433.77	-494.94	0.85	2.61	-6.04	-11.73	0.08	0.31	-1.29	-2.64
	U_{25}-U_{26}	-485.42	642.63	1.22	3.63	-6.89	-14.16	0.14	0.41	-1.63	-3.13
	U_{26}-U_{27}	-543.33	-230.04	2.97	0.48	-10.30	-9.99	0.37	0.87	-2.48	-2.48
	U_{27}-U_{28}	-414.64	-309.81	4.88	4.10	-10.86	-16.87	0.64	0.58	-1.77	-2.26
	U_{28}-U_{29}	-389.32	-328.61	3.43	3.40	-10.27	-16.39	0.45	0.48	-1.39	-2.26
	U_{29}-U_{30}	-443.98	-59.22	4.39	5.52	-11.02	-4.06	0.49	0.82	-2.01	-0.82
	U_{30}-U_{31}	-219.38	122.63	3.05	4.05	-5.46	-2.78	0.33	0.59	-1.40	-0.77
	U_{31}-U_{32}	-166.00	101.73	5.90	4.97	-8.63	-1.69	0.77	0.79	-1.44	-0.29
	U_{32}-U_{33}	-149.75	284.71	5.18	3.65	-3.44	-1.32	0.73	0.60	-0.58	0.39
	U_{33}-U_{34}	-60.65	60.65	2.64	2.64	-0.33	-0.33	0.37	0.37	-0.04	-0.04
	U_{34}-U_{35}	-290.99	1663.47	-3.88	23.40	-3.26	4.11	-1.34	5.47	0.00	0.00
	U_{35}-U_{36}	-1538.20	1538.20	-21.63	21.63	4.11	-4.11	5.47	0.00	0.00	0.00
	U_{36}-U_{37}	-27.64	20.42	0.90	-6.08	0.18	-0.08	-0.01	-0.26	0.00	0.00
	U_{37}-U_{38}	-301.84	301.84	-4.08	4.08	-0.08	0.08	-0.26	0.26	0.00	0.00
	U_{38}-U_{39}	-186.19	-237.97	2.26	6.41	-1.43	-7.93	0.46	0.70	0.18	-1.19
	U_{39}-U_{40}	-179.26	-73.23	3.28	4.15	-0.36	-6.56	0.59	0.66	0.03	-1.32
	U_{40}-U_{41}	-29.37	29.37	0.89	0.89	-0.07	-0.07	0.19	0.19	0.00	0.00
	U_{41}-U_{42}	-76.59	-111.03	3.67	3.22	-0.51	-5.29	0.57	0.45	0.79	-1.30
	U_{42}-U_{43}	-158.20	180.94	3.31	3.31	-1.30	-1.30	0.45	0.45	-0.72	-0.72
	U_{43}-U_{44}	-164.13	164.69	4.49	3.46	-8.87	-6.42	0.68	0.50	-1.67	-1.21
	U_{44}-U_{45}	-137.31	137.31	4.69	3.79	-9.26	-6.99	0.68	0.55	-1.67	-1.26
	U_{45}-U_{46}	-44.00	54.78	3.78	3.06	-8.59	-1.67	0.49	0.43	0.96	-0.34
	U_{46}-U_{47}	-69.00	212.40	3.93	2.38	-5.84	-1.48	0.54	0.34	-1.17	0.41
	U_{47}-U_{48}	-62.57	62.57	2.29	2.29	-0.41	-0.41	0.42	0.42	-0.08	-0.08
	U_{48}-U_{49}	-40.57	345.28	-2.66	6.70	-1.65	-0.85	-0.61	1.30	-0.96	0.63
	U_{49}-U_{50}	-185.98	640.73	-3.28	9.95	1.26	-1.18	-1.47	3.55	0.00	0.00
	U_{50}-U_{51}	705.85	-109.11	12.17	-3.44	-0.97	-0.21	3.95	-1.35	0.00	0.00
	U_{51}-U_{52}	53.54	85.06	1.55	2.67	-0.59	-0.51	0.40	0.66	-0.20	-0.87
	U_{52}-U_{53}	156.84	-12.62	2.57	2.42	-1.81	-3.55	0.70	0.62	0.15	-1.34
	U_{53}-U_{54}	46.75	-46.31	2.83	2.50	-2.55	-4.44	0.74	0.52	-0.74	-1.39
	U_{54}-U_{55}	57.88	-78.76	3.38	1.87	-4.17	-3.34	0.74	0.46	-1.03	-1.25
	U_{55}-U_{56}	20.58	-172.42	3.07	0.80	-4.25	-2.79	0.76	0.23	-1.42	-1.15
	U_{56}-U_{57}	-101.33	-63.03	2.19	0.18	-4.94	-0.24	0.53	0.02	-1.79	-0.65
	U_{57}-U_{58}	-55.81	170.19	1.34	-0.73	-1.81	-2.27	0.26	0.12	-1.52	-0.15

Location	Member	ZZ Axis Moments from STAAD: Live Load (Min) Start (k-ft)	Live Load (Min) End (k-ft)	Impact Pedestrian Load Min Start (k-ft)	Impact Pedestrian Load Min End (k-ft)	Max. Pos. Mom. Start (k-in)	Max. Pos. Mom. End (k-in)	S_{bb} (in^3)	S_b (in^3)	S_t (in^3)	I (in^4)	Shape Factor f	M_p (k-in)	Formula 1.8 Term = F.*S$_{bb}$	M_y (k-in)	Equivalent Mom. Factor a	$C_{m(x)}$	$C_{m(y)}$
Structure 1	U_1-U_2	0.00	0.00	0.00	0.00	-28.61	-24.37	62.26	-79.37	231.82	248.67	90.2	90.24	72.24	127.46	2147	1328.6	1.41	4206	0.99880004	2974.3	-0.922	0.23	0.23
	U_2-U_3	0.00	0.00	0.00	0.00	-2.66	-2.78	-8.68	0.13	0.51	-1.04	90.2	90.24	72.24	127.46	2147	1328.6	1.41	4206	0.99880004	2974.3	-0.018	0.59	0.59
	U_3-U_4	0.00	0.00	0.00	0.00	-5.50	-3.02	2.20	0.80	-0.90	-1.36	14.52	39.50	-70.21	32.65	2.39	9.55	-10.84	-16.28	-138.66	161.99	-322.23	5.68	90.2
	U_4-U_5	0.00	0.00	0.00	0.00	-3.45	-2.77	-0.72	-1.13	-1.66	-2.36	21.81	27.36	-37.59	-29.96	0.68	8.60	-11.81	-16.48	-5.16	81.32	-140.39	-23.04	90.2
	U_5-U_6	0.00	0.00	0.00	0.00	-4.47	-1.92	0.47	0.77	-1.36	-0.71	28.39	46.48	-48.29	-20.69	5.69	9.18	-16.32	-8.51	28.15	176.58	-138.78	81.24	90.2
	U_6-U_7	0.00	0.00	0.00	0.00	-3.75	0.62	0.62	0.72	-4.27	0.17	31.77	32.16	-40.53	8.88	7.44	8.60	-15.23	2.03	94.17	303.61	-65.28	43.05	90.2
	U_7-U_8	0.00	0.00	0.00	0.00	-0.01	0.41	-2.80	-2.80	-0.01	0.41	62.51	62.51	-0.76	0.76	-0.01	0.41	-2.80	-2.80	-240.50	240.50	-240.50	0.41	90.2
	U_8-U_9	0.00	0.00	0.00	0.00	-5.06	-1.03	-1.34	3.99	0.00	0.00	-22.53	-117.29	-61.15	-16.03	47.90	0.00	0.00	-141.46	1109.39	-1103.01	879.42	138.32	138.17
	U_9-U_{10}	0.00	0.00	0.00	0.00	-1.52	0.00	0.00	0.00	119.65	-48.17	0.00	0.00	42.88	-18.23	0.00	0.00	0.00	-507.03	-358.00	811.79	-253.63	130.3	130.26
	U_{10}-U_{11}	0.00	0.00	0.00	0.00	-1.66	-0.97	10.15	20.02	13.02	-45.01	3.32	5.53	2.80	-11.68	114.92	25.55	121.15	-115.36	96.6	96.61	79.12	139.29	2174
	U_{11}-U_{12}	0.00	0.00	0.00	0.00	-1.89	-1.30	-1.60	18.82	3.12	-12.48	4.66	3.06	-21.66	164.41	-203.39	-146.82	-446.98	384.08	83.93	139.29	79.12	139.29	2174
	U_{12}-U_{13}	0.00	0.00	0.00	0.00	-3.90	-2.93	-2.90	-20.86	90.24	-234.07	16.48	-633.05	128.7	128.69	105.26	182.66	3153	1864.4	1.42	6028	0.99872495	4241.5	0.673
	U_{13}-U_{14}	0.00	0.00	0.00	0.00	-6.74	-2.40	-0.38	-22.07	-12.53	-262.57	-472.86	-444.33	-570.74	188.51	180.51	150.41	214.68	545.74	3413.6	1.46	9064	0.99859994	6214.6	0.455
	U_{14}-U_{15}	0.00	0.00	0.00	0.00	-9.33	-5.41	0.32	0.20	-2.38	-1.60	16.18	9.28	-100.71	-58.40	3.88	2.41	-28.52	-19.14	-499.39	-322.67	712.65	-669.30	188.51
	U_{15}-U_{16}	0.00	0.00	0.00	0.00	-6.74	-2.40	-0.38	-22.07	-12.53	-262.57	-472.86	-444.33	-570.74	188.51	180.51	150.41	214.68	545.74	3413.6	1.46	9064	0.99859994	6214.6	0.455
	U_{16}-U_{17}	0.00	0.00	0.00	0.00	-6.74	-2.40	-0.05	-0.04	-1.64	-0.73	6.57	-0.04	-72.62	-25.89	0.69	-0.47	-19.69	-8.76	-444.74	-224.49	616.75	-260.48	188.51
	U_{17}-U_{18}	0.00	0.00	0.00	0.00	-7.60	-1.48	0.22	0.10	-2.08	-0.68	31.77	-0.68	-17.66	2.64	-262.62	-40.80	-406.76	352.23	127.3	127.31	70.13	139.23	3668
	U_{18}-U_{19}	0.00	0.00	0.00	0.00	-4.95	-1.06	0.43	0.05	-1.35	-0.33	12.75	1.07	-0.74	-17.11	4.25	-268.30	24.28	-392.87	-250.88	164.08	153.92	2589	1554.3
	U_{19}-U_{20}	0.00	0.00	0.00	0.00	-3.44	-1.34	0.06	-0.04	-1.34	-0.03	4.43	-5.03	-37.12	-14.43	0.74	-0.50	-16.08	-0.31	-286.96	-16.20	384.96	-322.51	104.8
	U_{20}-U_{21}	0.00	0.00	0.00	0.00	-10.72	-2.22	0.23	-0.24	-2.93	-0.61	35.77	-0.61	-25.31	575.69	-497.69	398.32	-1016.74	1.26	-5.60	2.72	-1.26	0.23	104.8
	U_{21}-U_{22}	0.00	0.00	0.00	0.00	-1.30	-7.25	0.00	0.18	-0.50	-1.31	-0.44	56.05	-104.50	-6.01	-6.01	-15.77	-147.87	-354.09	-177.36	-558.56	138.2	-138.21	104.8
	U_{22}-U_{23}	0.00	0.00	0.00	0.00	-3.79	-5.77	0.19	-0.27	-1.04	-1.57	-8.67	-1.61	-2.64	-5.76	-0.61	-0.61	-4.23	-6.06	-1.62	-7.82	0.03	0.03	104.8
	U_{23}-U_{24}	0.00	0.00	0.00	0.00	-2.04	9.10	28.18	-65.25	-126.69	0.96	3.68	-15.44	-24.50	-644.08	-582.38	705.28	-917.93	232.7	232.70	198.86	340.10	6520	3217.6
	U_{24}-U_{25}	0.00	0.00	0.00	0.00	-6.04	9.10	28.18	-65.25	-126.69	0.96	3.68	-15.44	-24.50	-644.08	-582.38	705.28	-917.93	232.7	232.70	198.86	340.10	6520	3217.6
	U_{25}-U_{26}	0.00	0.00	0.00	0.00	-10.30	-9.99	0.37	0.87	-2.48	-2.48	10.49	-25.74	-20.91	-636.80	-147.49	-847.37	-532.72	251.1	251.73	219.41	365.62	7161	3670.6
	U_{26}-U_{27}	0.00	0.00	0.00	0.00	-10.86	-16.87	0.64	0.58	-1.77	-2.26	52.66	44.23	-117.27	-182.22	7.69	7.01	-21.25	-27.12	-424.94	-301.74	-793.11	-792.36	232.7
	U_{27}-U_{28}	0.00	0.00	0.00	0.00	-10.27	-16.39	0.45	0.48	-1.39	-2.26	53.01	-102.27	-89.23	-182.22	5.62	7.63	-18.58	-24.53	-424.53	-310.00	-621.40	-633.34	232.7
	U_{28}-U_{29}	0.00	0.00	0.00	0.00	-11.02	-4.06	0.49	0.82	-2.01	-0.82	47.38	59.61	-119.02	-43.80	8.53	9.86	-24.13	-9.85	-474.52	52.16	-835.07	-171.90	198.9
	U_{29}-U_{30}	0.00	0.00	0.00	0.00	-5.46	-2.78	0.33	0.59	-1.40	-0.77	19.13	28.00	-52.09	-28.47	2.07	3.98	-9.15	-5.00	-219.73	23.73	-373.31	-80.56	198.9
	U_{30}-U_{31}	0.00	0.00	0.00	0.00	-8.63	-1.69	0.77	0.79	-1.44	-0.29	57.63	53.89	-93.15	-18.25	9.23	9.48	-17.24	-3.44	-77.74	248.57	-417.63	92.70	198.9
	U_{31}-U_{32}	0.00	0.00	0.00	0.00	-3.44	-1.32	0.73	0.60	-0.58	0.39	55.52	39.40	-37.71	-14.39	8.72	7.21	-18.96	4.62	-73.50	355.25	-238.93	108.91	198.9
	U_{32}-U_{33}	0.00	0.00	0.00	0.00	-0.33	-0.33	0.37	0.37	-0.04	-0.04	6.60	6.60	-5.04	-5.04	2.10	2.10	-6.01	-6.01	-15.77	-147.87	-354.09	-177.36	198.9
	U_{33}-U_{34}	0.00	0.00	0.00	0.00	-1.34	5.47	0.00	0.00	0.00	0.00	-469.06	2579.98	-454.64	2128.57	221.8	221.77	186.91	327.26	6244	3427.0	1.48	10799	0.99853092
	U_{34}-U_{35}	0.00	0.00	0.00	0.00	-4.11	5.47	0.00	0.00	0.00	0.00	-2595.48	2595.48	-2128.57	2128.57	221.8	221.77	186.91	327.26	6244	3427.0	1.48	10799	0.99853092
	U_{35}-U_{36}	0.00	0.00	0.00	0.00	0.08	-0.26	0.00	0.00	0.00	0.00	-14.94	-115.71	-31.67	24.74	-185.15	-185.70	154.12	-266.55	4767	2721.4	1.44	8796	0.99880004
	U_{36}-U_{37}	0.00	0.00	0.00	0.00	-0.08	0.08	-0.26	0.26	0.00	0.00	-14.94	-115.71	-31.67	24.74	-185.15	-185.70	154.12	-266.55	4767	2721.4	1.44	8796	0.99880004
	U_{37}-U_{38}	0.00	0.00	0.00	0.00	-1.43	-7.93	0.46	0.70	0.18	-1.19	24.38	47.58	15.43	-85.69	5.47	8.44	2.11	-14.28	204.86	73.25	275.48	-215.51	127.9
	U_{38}-U_{39}	0.00	0.00	0.00	0.00	-0.36	-6.56	0.59	0.66	0.03	-1.32	35.40	44.79	-33.93	-70.88	7.09	7.94	0.32	-15.76	309.74	1.84	224.61	-248.77	127.9
	U_{39}-U_{40}	0.00	0.00	0.00	0.00	-0.07	-0.07	0.19	0.19	0.00	0.00	-1.32	-1.32	-1.32	-1.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{40}-U_{41}	0.00	0.00	0.00	0.00	-0.51	-5.29	0.57	0.45	0.79	-1.30	39.59	34.81	-3.89	-102.74	57.14	6.89	5.36	-9.46	-15.61	-13.79	-68.92	-322.17	-268.15
	U_{41}-U_{42}	0.00	0.00	0.00	0.00	-1.30	-1.30	0.45	0.45	-0.72	-0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{42}-U_{43}	0.00	0.00	0.00	0.00	-8.87	-6.42	0.68	0.50	-1.67	-1.21	48.50	37.36	-106.61	-69.31	8.17	5.95	-20.02	-14.51	-108.28	-133.18	-444.39	364.28	144.9
	U_{43}-U_{44}	0.00	0.00	0.00	0.00	-9.26	-6.99	0.68	0.55	-1.67	-1.26	48.50	37.36	-106.61	-69.31	8.17	5.95	-20.02	-14.51	-108.28	-133.18	-444.39	364.28	144.9
	U_{44}-U_{45}	0.00	0.00	0.00	0.00	-8.59	-1.67	0.49	0.43	0.96	-0.34	40.77	33.06	-39.03	-18.08	5.87	5.17	-11.52	-4.10	31.14	142.84	-188.05	32.04	134.9
	U_{45}-U_{46}	0.00	0.00	0.00	0.00	-5.84	-1.48	0.54	0.34	-1.17	0.41	42.44	25.73	-63.05	16.01	6.42	4.02	-14.09	4.93	126.21	31.06	-377.26	110.76	134.9
	U_{46}-U_{47}	0.00	0.00	0.00	0.00	-2.29	-0.41	0.42	0.42	-0.08	-0.08	6.57	6.57	-4.85	-4.85	2.29	2.29	-5.66	-5.66	-1.65	-1.65	0.00	0.00	0.00
	U_{47}-U_{48}	0.00	0.00	0.00	0.00	-6.70	-1.65	-0.85	-0.61	1.30	-0.96	0.63	-27.62	72.34	-17.86	-9.20	-7.36	15.62	-11.58	7.52	-112.68	855.59	-100.55	-55.47
	U_{48}-U_{49}	0.00	0.00	0.00	0.00	-3.55	1.26	-1.47	3.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{49}-U_{50}	0.00	0.00	0.00	0.00	4.39	-1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{50}-U_{51}	0.00	0.00	0.00	0.00	-0.97	-0.21	3.95	-1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{51}-U_{52}	0.00	0.00	0.00	0.00	-0.59	-0.51	0.40	0.66	-0.20	-0.87	16.77	28.91	-6.42	-64.86	4.79	7.88	-2.45	-10.45	105.94	173.01	55.70	-29.97	97.1
	U_{52}-U_{53}	0.00	0.00	0.00	0.00	-1.81	-3.55	0.70	0.62	0.15	-1.34	27.80	26.17	-19.54	-38.37	8.40	7.46	1.62	-16.07	264.13	40.30	161.57	-99.54	90.2
	U_{53}-U_{54}	0.00	0.00	0.00	0.00	-2.55	-4.44	0.74	0.52	-0.74	-1.39	30.61	27.04	-27.58	-47.84	8.86	6.20	-8.88	-16.68	-127.10	-1.60	1.57	-44.23	90.2
	U_{54}-U_{55}	0.00	0.00	0.00	0.00	-4.17	-3.34	0.74	0.46	-1.03	-1.25	36.46	20.24	-45.01	-36.02	8.93	5.37	-12.34	-15.54	104.24	-58.54	-17.98	-7.73	90.2
	U_{55}-U_{56}	0.00	0.00	0.00	0.00	-4.25	-2.79	0.76	0.23	-1.42	-1.15	33.18	8.63	-45.85	-30.08	9.11	2.70	-17.00	-13.80	98.64	-205.44	-75.37	-44.55	90.2
	U_{56}-U_{57}	0.00	0.00	0.00	0.00	-4.94	-0.24	0.53	0.02	-1.79	-0.65	23.61	1.88	-53.40	-2.61	6.36	0.22	-21.44	-7.79	-80.58	-77.66	-253.39	-148.64	90.2
	U_{57}-U_{58}	0.00	0.00	0.00	0.00	-1.81	-2.27	0.26	0.12	-1.52	-0.15	14.52	-7.87	-19.54	-22.52	3.13	1.44	-18.18	-1.85	-41.10	-238.31	-133.84	-111.83	90.2

Location	Member	ZZ Axis Moments from STAAD: Lane Reduction & Impact Live Load (Min) Start (k-ft)	Lane Reduction & Impact Live Load (Min) End (k-ft)	Impact Pedestrian Load (Min) Start (k-ft)	Impact Pedestrian Load (Min) End (k-ft)	Max. Neg. Mom. Start (k-in)	Max. Neg. Mom. End (k-in)	S_{bb} (in^3)	S_b (in^3)	S_t (in^3)	I (in^4)	Shape Factor f	M_p (k-in)	Formula 1.8 Term = F.*S$_{bb}$	M_y (k-in)	Equivalent Mom. Factor a	$C_{m(x)}$	$C_{m(y)}$
Structure 2	U_1-U_2	-201.53	70.43	1.78	2.08	-5.76	-0.02	0.30	0.09	-1.62	-0.15	19.19	22.51	-62.22	-0.23	3.60	7.10	-19.39	-1.76	220.93	140.32	-399.13	-265.75	128.7
	U_2-U_3	-214.86	128.23	1.85	1.69	-5.54	1.35	0.39	0.52	-1.79	0.34	20.52	-7.87	-59.80	14.62	4.70	6.29	-21.47	4.03	-239.14	206.61	-411.38	-249.01	96.6
	U_3-U_4	-290.99	1663.47	-3.88	23.40	-3.26	4.11	-1.34	5.47	0.00	0.00	0.00	-41.89	252.68	-35.24	44.33	-16.13	65.60	0.00	0.00	-469.06	2579.98	-454.64	2128.57
	U_4-U_5	-1538.20	1538.20	-21.63	21.63	4.11	-4.11	5.47	0.00	0.00	0.00	-2595.48	2595.48	-2128.57	2128.57	221.8	221.77	186.91	327.26	6244	3427.0	1.48	10799	0.99853092
	U_5-U_6	-27.64	20.42	0.90	-6.08	0.18	-0.08	-0.01	-0.26	0.00	0.00	9.69	-65.65	1.97	-0.83	-0.06	-3.07	0.00	0.00	0.00	0.00	-14.94	-115.71	-31.67
	U_6-U_7	-301.84	301.84	-4.08	4.08	-0.08	0.08	-0.26	0.26	0.00	0.00	-14.94	-115.71	-31.67	24.74	-185.15	-185.70	154.12	-266.55	4767	2721.4	1.44	8796	0.99880004
	U_7-U_8	-186.19	-237.97	2.26	6.41	-1.43	-7.93	0.46	0.70	0.18	-1.19	24.38	47.58	15.43	-85.69	5.47

Axial - AI2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors: DL Factor= 1.30, LL Factor= 2.17
Pedestrian Load Factors: DL Factor= 1.30, LL Factor= 1.60

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Start (k-in)	Impact Pedestrian Load End (k-in)
Structure 1	L_0-L_1	-19.48	-91.69	0.11	0.05	1.75	-2.28	-0.11	0.13	0.00	-0.64
	L_1-L_2	30.30	-116.56	0.52	-6.98	-0.65	2.32	-0.07	-1.33	-0.16	0.43
	L_2-L_3	39.07	-78.01	0.45	-1.65	2.50	-1.04	-1.27	0.21	-0.50	-0.10
	L_3-L_4	-65.02	14.74	-4.45	-3.64	1.32	4.16	-1.19	-1.34	0.23	0.86
	L_4-L_5	-50.69	-224.13	-4.64	0.44	-1.27	-0.09	0.03	0.72	-0.14	-0.77
	L_5-L_6	-2.17	269.23	-1.33	0.16	2.46	4.55	-0.84	0.05	0.33	1.12
	L_6-L_7	-5.29	227.70	-0.88	0.28	-1.22	5.49	-0.80	-0.23	0.16	1.07
	L_7-L_8	-38.81	571.46	-0.06	0.70	-0.34	10.52	0.00	0.00	0.35	1.93
	L_8-L_9	555.91	-39.94	0.36	0.37	10.37	-0.26	0.00	0.00	1.93	-0.07
	L_9-L_{10}	185.62	153.59	1.13	-0.38	2.59	-1.83	0.00	0.00	0.53	0.49
	L_{10}-L_{11}	164.49	164.37	-0.26	-0.64	2.19	1.23	0.00	0.00	-0.73	-2.84
	L_{11}-L_{12}	187.56	251.15	1.16	-0.70	3.18	0.16	-1.26	0.42	-2.05	-5.15
	L_{12}-L_{13}	-57.21	-170.41	-4.68	-4.33	1.60	-0.80	-0.57	-0.97	0.43	0.20
	L_{13}-L_{14}	70.10	-469.56	-2.65	-8.43	1.22	1.13	-0.45	-2.28	0.35	0.23
	L_{14}-L_{15}	-489.53	-181.76	-5.66	-3.26	1.09	-0.34	-1.09	-0.34	1.20	-0.53
	L_{15}-L_{16}	-272.75	-354.04	-4.37	-4.63	0.42	0.79	-1.43	-1.04	0.13	-0.03
	L_{16}-L_{17}	-38.86	24.11	-1.47	-0.32	0.48	0.78	-0.36	-0.26	-1.42	-0.12
	L_{17}-L_{18}	-202.39	-20.51	-0.91	-0.53	0.22	0.06	-0.91	-0.53	0.22	0.06
	L_{18}-L_{19}	-240.68	180.28	-1.90	-0.61	0.00	0.06	-0.06	-1.10	-0.07	-0.01
	L_{19}-L_{20}	-192.40	90.95	-0.90	-0.22	0.24	-0.01	-0.06	-0.26	1.23	0.86
	L_{20}-L_{21}	26.60	-260.09	0.75	-0.95	1.92	-5.44	-0.05	0.10	0.35	-1.08
	L_{21}-L_{22}	201.56	-347.07	2.25	-1.61	4.36	-7.25	-0.12	0.17	0.84	-1.27
	L_{22}-L_{23}	7.16	-277.32	0.74	-0.44	-0.77	1.31	-0.23	-0.13	0.17	0.02
	L_{23}-L_{24}	16.22	-473.24	-0.33	-0.33	-1.53	1.21	-0.20	-0.29	0.85	-0.23
	L_{24}-L_{25}	-367.51	-421.35	-7.26	-8.14	0.73	2.39	-1.24	-1.72	0.04	0.52
	L_{25}-L_{26}	-215.99	-541.61	-3.92	-5.92	0.32	0.99	-1.42	-2.34	-0.01	0.31
	L_{26}-L_{27}	-619.43	-397.04	-14.57	-13.20	4.65	-2.42	-2.41	-2.51	0.47	0.59
	L_{27}-L_{28}	-394.52	-7.37	-12.63	-6.09	3.42	6.47	-1.94	-0.96	0.46	0.95
	L_{28}-L_{29}	-324.29	260.70	-5.42	-3.45	1.43	-0.77	-0.59	0.45	0.79	-0.57
	L_{29}-L_{30}	-295.59	352.58	-7.50	-1.35	3.16	6.00	-1.43	-0.05	0.41	0.92
	L_{30}-L_{31}	-139.88	264.11	-4.10	-1.46	1.90	3.97	-0.74	0.01	0.36	0.66
	L_{31}-L_{32}	-188.97	686.21	-2.34	-1.89	3.25	6.36	0.00	0.00	-0.58	0.81
	L_{32}-L_{33}	-139.46	-276.11	-3.79	0.07	0.53	-5.24	0.00	0.00	-0.23	-1.22
	L_{33}-L_{34}	-1356.12	-1301.45	-1.20	-0.41	0.24	0.31	0.00	0.00	-0.01	0.00
	L_{34}-L_{35}	-1356.12	-488.32	-3.40	-1.94	23.11	-4.53	0.00	0.00	0.00	60.66
	L_{35}-L_{36}	306.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{36}-L_{37}	579.83	-109.25	-4.05	-4.10	6.89	-3.20	0.00	0.00	0.00	2.03
	L_{37}-L_{38}	275.68	-101.76	-0.70	-0.92	3.83	3.02	-0.11	-0.89	1.05	0.64
	L_{38}-L_{39}	209.89	-114.91	0.10	-0.73	2.25	4.22	-0.29	-1.04	0.42	0.64
	L_{39}-L_{40}	-125.67	-68.47	-0.41	-0.24	1.07	2.04	-0.14	-0.49	0.20	0.30
	L_{40}-L_{41}	-33.73	-318.64	-6.67	-10.79	2.75	5.22	-0.99	-2.03	0.43	0.76
	L_{41}-L_{42}	326.90	-284.41	-3.61	-4.01	1.54	2.84	-0.53	-0.74	0.23	0.41
	L_{42}-L_{43}	-183.23	53.46	-4.24	-3.03	2.27	3.30	-1.14	-0.36	0.42	0.44
	L_{43}-L_{44}	-100.74	210.70	-2.12	-1.91	1.13	1.61	-0.56	-0.14	0.23	0.21
	L_{44}-L_{45}	-100.74	310.70	-1.91	-3.02	2.20	3.31	0.00	-0.56	1.26	-0.64
	L_{45}-L_{46}	-69.72	308.73	-0.75	-0.55	-1.94	4.96	0.00	0.00	-0.22	0.85
	L_{46}-L_{47}	-69.72	308.73	-0.75	-0.55	-1.94	4.96	0.00	0.00	-0.22	0.85
	L_{47}-L_{48}	-18.47	-438.87	-3.34	0.68	1.12	-5.85	0.00	0.00	0.00	-1.50
	L_{48}-L_{49}	1437.37	-471.51	-3.96	2.12	21.79	-8.56	0.00	0.00	0.29	0.88
	L_{49}-L_{50}	-253.75	-181.16	2.98	-2.27	-5.57	-1.76	0.00	0.00	-2.40	32.13
	L_{50}-L_{51}	584.71	-198.25	-6.03	-4.13	9.06	-4.96	0.00	0.00	-0.63	-0.96
	L_{51}-L_{52}	390.20	-203.85	-0.58	-3.37	2.14	4.47	0.00	0.00	0.84	-0.46
	L_{52}-L_{53}	243.13	-341.77	-0.63	-8.15	3.21	3.55	-0.15	-1.37	0.50	0.46
	L_{53}-L_{54}	243.13	-341.77	-0.63	-8.15	3.21	3.55	-0.15	-1.37	0.50	0.46
	L_{54}-L_{55}	-365.08	644.79	-14.33	-13.14	2.26	2.82	-2.07	-2.23	0.68	0.27
	L_{55}-L_{56}	-620.48	-212.54	-12.24	-4.91	2.81	0.73	-2.14	-1.36	0.38	0.07
	L_{56}-L_{57}	-434.07	-328.96	-9.61	-7.61	2.11	1.20	-1.61	-1.36	0.30	0.13
	L_{57}-L_{58}	-457.92	30.72	-6.30	0.29	1.67	-0.12	-1.31	-0.26	0.11	-0.10
	L_{58}-L_{59}	-332.43	186.70	-2.61	0.50	1.29	-0.26	-1.04	0.21	0.00	0.00
	L_{59}-L_{60}	-298.55	65.29	-1.68	0.07	0.53	-0.09	-0.53	0.09	0.00	0.00
	L_{60}-L_{61}	53.61	-162.26	0.25	-0.94	2.29	-4.09	-0.06	0.04	0.53	-0.99
	L_{61}-L_{62}	-192.76	-240.13	-0.34	-1.64	0.01	0.40	0.15	0.04	0.65	-1.12
	L_{62}-L_{63}	24.74	-186.41	0.19	-0.78	0.23	0.23	-0.09	-0.34	0.08	-0.14
	L_{63}-L_{64}	40.28	-374.07	0.65	-0.29	-0.03	0.56	-0.04	-1.42	0.00	0.00
	L_{64}-L_{65}	42.39	-374.67	0.65	-0.29	-0.03	0.56	-0.04	-1.42	0.00	0.00
	L_{65}-L_{66}	-121.39	-479.27	-4.59	-8.91	0.19	1.86	-1.04	-2.51	0.00	0.00
	L_{66}-L_{67}	-476.75	95.76	-6.68	0.38	1.49	-1.26	-2.38	0.19	0.00	0.00
	L_{67}-L_{68}	-241.27	199.03	-4.32	1.23	1.34	1.45	-1.20	0.19	0.23	0.47
	L_{68}-L_{69}	-127.13	162.45	-1.11	0.93	-0.32	0.92	0.00	0.00	0.00	0.00
	L_{69}-L_{70}	-127.13	162.45	-1.11	0.93	-0.32	0.92	0.00	0.00	0.00	0.00
	L_{70}-L_{71}	-606.98	-34.68	-0.81	0.30	10.99	-0.26	0.00	0.00	0.00	0.00
	L_{71}-L_{72}	98.33	-47.56	0.78	-0.49	1.34	-2.23	0.00	0.00	0.00	0.00
	L_{72}-L_{73}	98.33	-47.56	0.78	-0.49	1.34	-2.23	0.00	0.00	0.00	0.00
	L_{73}-L_{74}	-217.20	-65.09	-2.18	-4.81	2.40	3.08	-0.04	-1.53	0.66	0.69
	L_{74}-L_{75}	-217.20	-65.09	-2.18	-4.81	2.40	3.08	-0.04	-1.53	0.66	0.69
	L_{75}-L_{76}	-112.39	-133.89	-0.73	-2.70	1.98	1.82	-0.18	-1.22	0.49	0.22
	L_{76}-L_{77}	-112.39	-133.89	-0.73	-2.70	1.98	1.82	-0.18	-1.22	0.49	0.22
	L_{77}-L_{78}	-120.88	38.04	-0.01	0.24	-0.67	-0.60	0.00	0.00	0.00	0.00

YY Axis Moments from STAAD

Location	Member	Min. Mxx. Moments Start (k-in)	Min. Mxx. Moments End (k-in)	Max. Neg. Mom. Start (k-in)	Max. Neg. Mom. End (k-in)	S_{xx} (in^3)	S_{xx} (in^3)	Z_{xx} (in^3)	I_{xx} (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F$_y$/S$_{xx}$	M_n (k-in)	Equivalent Mom. Factor C_m	C_b	C_{max}	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Start (k-in)	Impact Pedestrian Load End (k-in)
Structure 1	L_0-L_1	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	0.272	0.71	0.71
	L_1-L_2	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_2-L_3	-0.03	-0.11	0.44	1.62	3.37	12.41	23.39	85.97	-0.35	-1.29	0.46	19.42	51.54	190.80	14.61	-64.09	123.6	123.61	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_3-L_4	-0.14	-0.56	1.83	6.72	13.97	51.39	96.89	356.12	-1.43	-5.36	1.92	80.46	213.50	790.42	58.31	-265.50	512.1	512.12	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_4-L_5	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_5-L_6	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_6-L_7	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_7-L_8	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_8-L_9	-0.14	-0.56	1.83	6.72	13.97	51.39	96.89	356.12	-1.43	-5.36	1.92	80.46	213.50	790.42	58.31	-265.50	512.1	512.12	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_9-L_{10}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{10}-L_{11}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{11}-L_{12}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{12}-L_{13}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{13}-L_{14}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{14}-L_{15}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{15}-L_{16}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{16}-L_{17}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{17}-L_{18}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{18}-L_{19}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{19}-L_{20}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{20}-L_{21}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{21}-L_{22}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{22}-L_{23}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{23}-L_{24}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{24}-L_{25}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{25}-L_{26}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{26}-L_{27}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{27}-L_{28}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{28}-L_{29}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{29}-L_{30}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{30}-L_{31}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{31}-L_{32}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{32}-L_{33}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{33}-L_{34}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{34}-L_{35}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{35}-L_{36}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{36}-L_{37}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{37}-L_{38}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{38}-L_{39}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{39}-L_{40}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{40}-L_{41}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{41}-L_{42}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{42}-L_{43}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{43}-L_{44}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	115.05	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	L_{44}-L_{45}	-0.03	-0.11	0.46	1.68	3.50	12.88	24.28	89.23	-0.36	-1.34	0.48	20.16	53.50	198.05	15.17	-66.52	128.3	128.29	121.63	141.18	626.8	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43
	$L_{

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information | M_7 Information

ZZ Axis Moments from STAAD | ZZ Axis Moment Properties | YY Axis Moments from STAAD | YY Axis Moment Properties | Yield | Tension | Compression | Buckle | Yield

| Location | Member | Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) (k-in) | Pedestrian Load (Min) (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Max (k-in) | Impact Pedestrian Load Min (k-in) | Max. Neg. Mom. Start (k-in) | Max. Neg. Mom. End (k-in) | S_{top} (in^3) | S_{bot} (in^3) | Z_x (in^3) | I_x (in^4) | I_{xx} (in^4) | Shape Factor | M_p (k-in) | Formula 1.8 Term * F_y/S_xx | M_y (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor C_{mx} | Equivalent Mom. Factor C_{bm} | Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) (k-in) | Pedestrian Load (Min) (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Max (k-in) | Impact Pedestrian Load Min (k-in) | Max. Neg. Mom. Start (k-in) | Max. Neg. Mom. End (k-in) | S_{top} (in^3) | S_{bot} (in^3) | Z_y (in^3) | I_{yy} (in^4) | Shape Factor | M_p (k-in) | F_{cm} (ksi) | Formula 1.8 Term * F_y/S_yy | M_y (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor C_{mx} | Equivalent Mom. Factor C_{bm} | Yield Axial Actual | Yield Moment Portion | Yield Total | Yield Pass | Tension Axial Actual | Tension Fracture Moment Portion | Tension Fracture Total | Tension Fracture Pass | Compression Axial Actual | Compression Buckle Moment | Compression Buckle Total | Compression Buckle Pass | Compression Yield Axial Actual | Compression Yield Moment Portion | Compression Yield Total | Compression Yield Pass |
|---|---|---|---

Axial - AI2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.60

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) (k-ft)	Pedestrian Load (Min) (k-ft)	Lane Reduction & Impact Live Load Max (k-ft)	Lane Reduction & Impact Live Load Min (k-ft)	Impact Pedestrian Load Max (k-ft)	Impact Pedestrian Load Min (k-ft)
Structure 1	U_0-L_1	3.62	-1.41	0.01	0.39	-0.02	-0.15	0.15	0.01	0.03	-0.02
	U_1-L_1	-11.46	-3.33	-0.95	0.00	0.43	-0.17	-0.25	0.07	0.08	-0.04
	U_1-L_2	-10.61	-11.79	-0.26	-0.15	-0.43	-0.13	-0.03	0.09	-0.08	-3.55
	U_1-U_2	9.82	-15.00	-0.08	-0.09	0.34	-0.52	0.00	0.00	0.00	-0.11
	L_1-L_2	-16.21	25.07	-0.46	-0.14	0.11	-0.07	0.00	0.00	0.00	-1.69
	L_2-L_3	-34.06	79.11	0.74	1.78	0.37	0.14	-0.28	0.44	0.00	-8.01
	U_2-L_3	-31.07	82.04	-1.51	1.65	-0.01	0.41	-0.27	0.25	0.00	-18.23
	U_2-U_3	-1.45	103.74	-0.40	2.05	0.31	-0.39	-0.29	0.65	0.00	-4.29
	L_3-U_3	-12.32	139.19	-0.79	2.39	0.38	0.08	-0.19	0.58	0.21	0.13
	L_3-L_4	-100.96	90.26	-2.20	-2.70	0.22	0.14	-0.50	0.51	0.00	-8.52
	U_3-L_4	-73.41	69.80	-1.50	1.54	0.16	0.04	-0.31	0.35	0.00	-16.20
	U_3-U_4	-81.96	81.96	-1.40	1.40	0.00	0.00	-0.29	0.29	0.00	-21.08
	L_4-L_5	-69.88	47.84	0.96	0.68	0.09	-0.01	-0.31	0.21	0.00	-10.38
	U_4-L_5	-27.39	6.37	0.49	0.05	0.03	0.02	-0.15	0.03	0.00	-5.32
	U_4-U_5	-8.38	-3.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-1.75
	L_5-U_5	-31.03	12.71	-0.87	0.54	0.22	-0.18	0.19	0.11	0.05	-0.04
	L_5-L_6	-46.63	27.25	-0.13	0.10	0.19	-0.28	0.19	0.04	0.00	-12.07
	U_5-L_6	-118.88	85.28	-2.12	1.65	0.31	-0.29	-0.55	0.42	0.06	-22.90
	U_5-U_6	-117.64	87.57	-1.93	1.48	0.26	-0.22	-0.57	0.45	0.04	-22.89
	L_6-U_6	-148.08	120.85	-2.01	1.96	0.16	-0.11	-0.79	0.63	0.04	-27.11
	L_6-L_7	-86.91	116.74	-1.36	2.27	0.29	-0.55	-0.13	0.38	0.01	-0.06
	U_6-L_7	-56.13	114.46	-0.79	2.39	0.29	-0.69	-0.03	0.12	0.00	-14.55
	U_6-U_7	-118.23	92.26	-2.94	2.40	0.94	-0.83	-0.52	0.43	0.11	-0.10
	L_7-U_7	-24.33	87.66	-1.65	1.17	0.53	-0.63	-0.20	0.29	0.11	-0.07
	U_7-L_8	-24.33	8.61	-1.16	0.76	0.56	-0.46	-0.18	0.11	0.07	-0.06
	L_8-U_8	-13.33	1.47	-0.62	0.11	0.27	-0.15	-0.09	0.02	0.03	-0.02
	U_8-L_8	-13.33	-37.03	-0.21	0.04	0.24	-0.54	0.00	0.00	0.04	-2.26
	L_8-L_9	-66.01	54.01	-1.56	0.51	-0.13	-0.15	-0.23	0.17	0.00	-16.87
	U_8-L_9	-133.77	104.34	-2.79	0.77	-0.42	-0.22	-0.30	0.24	0.00	-30.19
	L_9-U_9	-116.17	105.67	-2.20	2.01	0.23	0.01	-0.36	0.36	0.00	-23.75
	U_9-L_9	-138.98	130.24	-2.85	2.66	0.19	-0.28	-0.45	0.45	0.00	-30.02
	L_9-L_{10}	-131.97	151.07	-2.79	2.43	0.73	-0.33	-0.42	0.51	0.00	-30.18
	U_9-L_{10}	-175.19	162.79	-3.09	-1.91	-0.64	0.56	0.04	0.02	0.33	-32.03
	L_{10}-U_{10}	-44.29	169.27	-1.96	-1.17	0.53	-0.63	-0.23	0.33	0.11	-0.07
	U_{10}-L_{10}	-45.28	135.71	-1.93	2.53	1.00	-0.38	-0.36	0.49	0.18	-0.02
	L_{10}-L_{11}	-143.90	129.77	-3.20	-2.00	0.61	0.59	0.04	0.02	0.33	-32.03
	U_{10}-L_{11}	-112.48	135.83	-3.01	2.98	0.59	-0.32	-0.48	0.55	0.07	0.00
	L_{11}-U_{11}	-83.86	108.68	-2.65	2.99	0.59	-0.22	-0.37	0.40	0.00	-28.61
	U_{11}-L_{11}	-83.86	94.66	-2.65	2.99	0.51	-0.22	-0.37	0.40	0.00	-28.61
	L_{11}-L_{12}	-91.74	54.21	-1.79	0.84	0.36	-0.13	-0.27	0.25	0.00	-19.29
	U_{11}-L_{12}	-138.98	104.34	-2.85	1.86	0.19	-0.28	-0.45	0.45	0.00	-30.02
	L_{12}-U_{12}	-14.00	1.02	-0.49	0.18	-0.05	-0.61	0.11	0.03	-0.01	-0.08
	U_{12}-L_{12}	-18.17	5.29	-0.66	0.24	-0.07	-0.83	0.15	0.04	-0.01	-0.11
	L_{12}-L_{13}	-32.82	30.91	-1.09	0.79	0.29	-0.04	-0.20	0.17	0.00	-11.72
	U_{12}-L_{13}	-53.04	50.67	-1.94	1.32	0.49	-0.07	-0.36	0.29	0.00	-18.92
	L_{13}-U_{13}	-83.86	100.04	-2.45	2.64	0.72	-0.09	-0.39	0.44	0.06	-28.61
	U_{13}-L_{13}	-98.49	117.09	-2.41	2.70	0.82	-0.41	-0.42	0.49	0.06	-32.58
	L_{13}-L_{14}	-50.08	132.26	-1.24	3.24	0.49	-0.41	-0.22	0.33	0.00	-16.46
	U_{13}-L_{14}	-125.63	123.54	-2.69	2.42	1.53	-1.24	-0.52	0.49	0.00	-29.02
	L_{14}-U_{14}	-30.08	133.86	-1.04	2.22	0.49	-0.41	-0.19	0.33	0.00	-16.46
	U_{14}-L_{14}	-83.58	187.86	-2.28	2.92	0.98	-0.34	-0.45	0.61	0.17	0.01
	L_{14}-L_{15}	-118.54	150.45	-2.78	2.40	0.47	-0.05	-0.45	0.53	0.00	-30.06
	U_{14}-L_{15}	-128.90	122.99	-2.65	1.75	0.49	0.12	-0.40	0.44	0.00	-28.63
	L_{15}-U_{15}	-128.40	95.00	-2.39	1.27	0.12	0.13	-0.41	0.35	0.00	-25.01
	U_{15}-L_{15}	-128.40	95.00	-2.39	1.27	0.12	0.13	-0.41	0.35	0.00	-25.01
	L_{15}-L_{16}	8.88	-32.25	-0.65	-0.22	0.20	-0.47	0.05	0.00	0.03	-0.12
	U_{15}-L_{16}	-4.65	-13.30	-0.93	0.46	0.51	-0.38	-0.11	0.00	0.03	-0.12
	L_{16}-U_{16}	-43.21	40.39	-1.65	1.24	0.54	-0.47	-0.27	0.19	0.07	-17.82
	U_{16}-L_{16}	-43.21	40.39	-1.65	1.24	0.54	-0.47	-0.27	0.19	0.07	-17.82
	L_{16}-L_{17}	-135.93	107.52	-2.61	2.22	0.68	-0.61	-0.55	0.45	0.08	-28.14
	U_{16}-L_{17}	-135.93	107.52	-2.61	2.22	0.68	-0.61	-0.55	0.45	0.08	-28.14
	L_{17}-U_{17}	-66.35	89.44	-1.82	2.04	0.13	-0.22	-0.12	0.38	0.01	-23.09
	U_{17}-L_{17}	-137.90	96.45	-2.96	2.17	0.38	-0.31	-0.75	0.56	0.05	-31.95
	L_{17}-L_{18}	-89.32	82.81	-2.46	1.46	0.71	-0.46	-0.37	0.37	0.00	-25.92
	U_{17}-L_{18}	-43.89	24.72	-1.46	0.77	0.26	-0.21	-0.20	0.20	0.00	-13.46
	L_{18}-U_{18}	-89.32	90.65	-2.71	1.61	0.30	-0.21	-0.57	0.53	0.00	-25.92
	U_{18}-L_{18}	-18.99	22.49	-0.33	0.19	0.00	0.00	0.00	0.00	0.00	-3.55
	L_{18}-L_{19}	-49.13	49.13	-1.49	1.49	0.00	0.00	0.00	0.00	0.00	-9.19
	L_{19}-U_{19}	-4.49	-12.52	-0.65	0.03	0.20	-0.47	-0.05	0.00	0.03	-0.09
	U_{19}-L_{19}	-34.24	14.49	-0.49	0.44	0.14	-0.20	-0.13	0.07	0.01	-0.06

YY Axis Moments from STAAD

Location	Member	ZZ Axis Moments from STAAD: Max. Pos. Mom. Start (k-ft)	Max. Pos. Mom. End (k-ft)	Max. Neg. Mom. Start (k-ft)	Max. Neg. Mom. End (k-ft)	S_{top} (in^3)	S_{bot} (in^3)	Z_z (in^3)	I (in^4)	I_{trn} (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F_y/S_x	M_y (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor $C_{m(x)}$	Equivalent Mom. Factor $C_{m(y)}$
Structure 2	U_0-L_1	-84.71	-28.00	-8.71	-5.19	2.83	2.73	-1.09	-0.56	0.05	0.50	-94.02	-55.67	30.55	29.48	-13.07	-6.73
	U_1-L_1	-132.47	-33.66	-10.25	-12.25	-10.07	3.63	2.79	1.18	-0.11	0.49	0.45	-132.34	-108.77	39.15	30.18	14.16
	U_1-L_2	-139.81	-60.83	-8.42	-41.39	-24.61	-19.23	-2.03	-22.65	-1.67	1.30	0.13	-139.81	-139.81	41.39	-244.61	-19.23
	U_1-U_2	206.42	91.50	-4.66	-3.28	-9.35	-2.57	0.01	0.77	-60.32	-35.38	-100.93	-27.75	0.00	0.00	27.72	9.26
	L_1-L_2	58.77	21.08	0.00	0.00	0.00	0.00	0.00	0.00	-22.24	-7.50	0.00	0.00	0.00	0.00	-200.48	0.00
	L_2-L_3	46.75	34.87	-17.82	11.93	-20.53	-4.43	0.00	0.00	-148.34	105.97	-288.85	-88.25	0.00	0.00	-228.52	-17.81
	U_2-L_3	56.43	37.24	-25.90	9.66	-29.21	-5.99	0.00	0.00	-126.42	-102.48	-203.37	-124.48	148.0	147.96	147.96	147.96
	U_2-U_3	-153.51	-53.38	-61.18	1.99	-0.11	-0.13	-1.81	-0.82	0.00	0.00	-126.42	-102.48	-203.37	-124.48	148.0	147.96
	L_3-U_3	-151.37	59.14	-11.80	-6.28	2.74	1.81	-0.27	0.07	-127.41	-87.86	-98.09	-22.73	0.00	0.00	-174.48	-88.09
	L_3-L_4	-23.41	69.80	-15.62	1.67	2.91	2.57	0.74	0.76	-126.28	-126.28	-126.28	-126.28	148.0	147.96	147.96	147.96
	U_3-L_4	42.63	-78.54	-11.87	-7.46	-1.08	1.02	1.69	0.30	0.00	0.00	-126.20	-80.52	11.64	11.06	19.06	3.65
	U_3-U_4	49.24	-87.24	-13.90	-8.29	-1.32	1.20	2.23	0.49	0.00	0.00	-263.79	-438.57	94.62	-85.33	183.7	172.95
	L_4-L_5	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-105.12	-66.96	-132.33	-123.27	155.40	108.8	108.8	108.8
	U_4-L_5	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-105.12	-66.96	-132.33	-123.27	155.40	108.8	108.8	108.8
	L_5-L_6	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	U_5-L_6	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	U_5-U_6	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_6-U_6	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_6-L_7	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	U_6-L_7	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	U_6-U_7	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_7-U_7	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	U_7-L_8	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	L_8-U_8	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	U_8-L_8	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_8-L_9	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	U_8-L_9	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_9-U_9	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	U_9-L_9	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	L_9-L_{10}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	U_9-L_{10}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{10}-U_{10}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	U_{10}-L_{10}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{10}-L_{11}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	U_{10}-L_{11}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{11}-U_{11}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	U_{11}-L_{11}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{11}-L_{12}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	U_{11}-L_{12}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{12}-U_{12}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	U_{12}-L_{12}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{12}-L_{13}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	U_{12}-L_{13}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{13}-U_{13}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	U_{13}-L_{13}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{13}-L_{14}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	U_{13}-L_{14}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{14}-U_{14}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	U_{14}-L_{14}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{14}-L_{15}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	U_{14}-L_{15}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{15}-U_{15}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	U_{15}-L_{15}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{15}-L_{16}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	U_{15}-L_{16}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{16}-U_{16}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	U_{16}-L_{16}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{16}-L_{17}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	U_{16}-L_{17}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{17}-U_{17}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	U_{17}-L_{17}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{17}-L_{18}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	U_{17}-L_{18}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{18}-U_{18}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	U_{18}-L_{18}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	L_{18}-L_{19}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-109.71	-86.70	-124.44	-11.94	28.21	9.52	0.00	0.82
	L_{19}-U_{19}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00
	U_{19}-L_{19}	1029.6	-688.9	52.94	-12.02	23.28	8.27	0.00	0.00	-260.50	-183.33	6.00	-6.00	-0.05	0.20	-290.20	0.00

M_y Information

Tension

Location	Member	Max. Pos. Mom. Start (k-ft)	Max. Pos. Mom. End (k-ft)	Max. Neg. Mom. Start (k-ft)	Max. Neg. Mom. End (k-ft)	S_{top} (in^3)	S_{bot} (in^3)	Z_y (in^3)	I_{yy} (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F_y/S_x	M_y (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor $C_{m(x)}$	Equivalent Mom. Factor $C_{m(y)}$	Axial Force (k)	Moment (k-ft)	Pass
Structure 1	U_0-L_1	3.62	-1.41	0.01	0.39	-0.02	-0.15	0.15	0.01	0.03	-0.02	-0.13	4.19	-0.24	-1.59	1.75	0.12
	U_1-L_1	-11.46	-3.33	-0.95	0.00	0.43	-0.17	-0.25	0.07	0.08	-0.04	-0.62	1.84	-2.95	0.84	4.60	-1.84
	U_1-L_2	-10.61	-11.79	-0.26	-0.15	-0.43	-0.13	-0.03	0.09	-0.08	-3.55	-0.76	-1.64	-4.68	-1.52	0.39	1.56
	U_1-U_2	9.82	-15.00	-0.08	-0.09	0.34	-0.52	0.00	0.00	0.00	-0.11	-0.83	-1.00	3.72	-5.59	0.00	0.00
	L_1-L_2	-16.21	25.07	-0.46	-0.14	0.11	-0.07	0.00	0.00	0.00	-1.69	-1.26	-0.98	1.26	-0.91	-0.91	-0.82
	L_2-L_3	-34.06	79.11	0.74	1.78	0.37	0.14	-0.28	0.44	0.00	-8.01	-19.23	3.96	-1.54	-3.32	5.26	0.00
	U_2-L_3	-31.07	82.04	-1.51	1.65	-0.01	0.41	-0.27	0.25	0.00	-18.23	-20.65	6.29	0.00	-1.80	4.16	0.00
	U_2-U_3	-1.45	103.74	-0.40	2.05	0.31	-0.39	-0.29	0.65	0.00	-4.29	-22.17	3.30	-4.18	-1.07	7.78	0.00
	L_3-U_3	-12.32	139.19	-0.79	2.39	0.38	0.08	-0.19	0.58	0.21	0.13	-8.52	25.86	4.08	2.84	-2.33	6.96
	L_3-L_4	-100.96	90.26	-2.20	-2.70	0.22	0.14	-0.50	0.51	0.00	-8.52	-23.77	19.25	2.42	1.51	-6.04	0.00
	U_3-L_4	-73.41	69.80	-1.50	1.54	0.16	0.04	-0.31	0.35	0.00	-16.20	-16.63	1.67	-6.46	-3.77	4.25	0.00
	U_3-U_4	-81.96	81.96	-1.40	1.40	0.00	0.00	-0.29	0.29	0.00	-21.08

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Upper Chord	Structure 1	$U_0 - U_1$	-----	-595.91	-171	162	-437	-568	8	12	-66	-131	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.185	1.00	Yes	0.804	0.135	0.94	Yes	1.00	**4.78**
		$U_1 - U_2$	-----	-596.12	-54	117	-158	-620	-7	-7	-16	-153	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.180	1.00	Yes	0.804	0.148	0.96	Yes	1.00	**2.58**
		$U_2 - U_3$	-----	-635.69	-107	304	-454	-298	9	26	-26	129	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.127	1.00	Yes	0.857	0.108	0.97	Yes	1.00	**2.39**
		$U_3 - U_4$	359.52	-561.93	85	319	-391	-618	5	38	157	61	0.412	0.173	0.59	Yes	0.283	0.119	0.41	Yes	0.765	0.234	1.00	Yes	0.758	0.147	0.91	Yes	1.00	**2.37**
		$U_4 - U_5$	381.34	-585.04	140	311	-873	-149	21	-31	93	-52	0.437	0.223	0.67	Yes	0.300	0.153	0.46	Yes	0.796	0.196	1.00	Yes	0.789	0.208	1.00	Yes	1.00	**2.49**
		$U_5 - U_6$	723.00	-----	284	498	-453	267	-157	-78	248	-288	0.829	0.167	1.00	Yes	0.559	0.110	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.35**
		$U_6 - U_7$	894.37	-----	395	232	-331	25	-318	-132	385	-118	0.855	0.137	1.00	Yes	0.598	0.094	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.06**
		$U_7 - U_8$	1006.13	-----	-393	1811	-163	884	-210	-223	-110	-221	0.697	0.297	1.00	Yes	0.486	0.202	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.08**
		$U_8 - U_9$	850.30	-----	1440	-416	691	-168	-432	-91	-237	-120	0.697	0.295	1.00	Yes	0.477	0.200	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.82**
		$U_9 - U_{10}$	765.55	-----	246	338	267	-283	-260	30	-18	568	0.830	0.167	1.00	Yes	0.562	0.112	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.09**
		$U_{10} - U_{11}$	-----	-620.76	371	-26	301	-928	22	103	215	143	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.166	0.97	Yes	0.792	0.208	1.00	Yes	1.00	**3.44**
		$U_{11} - U_{12}$	-----	-891.21	230	-104	49	-653	112	403	154	613	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.150	1.00	Yes	0.836	0.108	0.95	Yes	1.00	**2.11**
		$U_{12} - U_{13}$	-----	-1279.41	10	-234	-194	-576	345	205	539	331	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.133	1.00	Yes	0.855	0.079	0.94	Yes	1.00	**2.13**
		$U_{13} - U_{14}$	-----	-1348.46	-154	-389	-461	-1402	225	177	383	501	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.213	1.00	Yes	0.773	0.155	0.93	Yes	1.00	**1.68**
		$U_{14} - U_{15}$	-----	-1349.95	-280	-254	-1310	-604	213	29	589	169	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.210	1.00	Yes	0.774	0.144	0.92	Yes	1.00	**1.68**
		$U_{15} - U_{16}$	-----	-1485.63	-143	-431	-557	-797	79	36	431	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.136	1.00	Yes	0.852	0.088	0.94	Yes	1.00	**2.06**
		$U_{16} - U_{17}$	-----	-1426.10	-336	-210	-1099	-403	133	-53	604	57	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.170	1.00	Yes	0.818	0.121	0.94	Yes	1.00	**2.34**
		$U_{17} - U_{18}$	-----	-1097.28	-204	-79	-670	104	-13	-62	456	-59	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.121	1.00	Yes	0.859	0.109	0.97	Yes	1.00	**2.43**
		$U_{18} - U_{19}$	-----	-735.58	-191	-74	-712	-38	15	-116	464	-278	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.156	1.00	Yes	0.828	0.143	0.98	Yes	1.00	**2.64**
		$U_{19} - U_{20}$	-----	-469.06	-255	288	-1544	2335	-71	-119	415	-1349	-----	-----	-----	-----	-----	-----	-----	-----	0.533	0.333	0.87	Yes	0.528	0.470	1.00	Yes	1.00	**5.71**
	Structure 2	$U_0 - U_1$	-----	-654.71	-105	-9	-186	-1306	9	-61	-54	-117	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.222	1.00	Yes	0.773	0.222	1.00	Yes	1.00	**5.54**
		$U_1 - U_2$	-----	-880.31	-54	-146	47	-882	-72	-220	-34	-152	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.141	1.00	Yes	0.850	0.134	0.99	Yes	1.00	**2.98**
		$U_2 - U_3$	-----	-1206.74	-109	-228	-74	-1133	-23	408	-82	108	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.131	1.00	Yes	0.856	0.115	0.98	Yes	1.00	**2.59**
		$U_3 - U_4$	-----	-1396.33	-413	-388	-779	-1017	559	961	193	174	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.193	1.00	Yes	0.795	0.091	0.89	Yes	1.00	**2.09**
		$U_4 - U_5$	-----	-1557.34	-452	-326	-831	-1396	810	320	237	137	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.194	1.00	Yes	0.800	0.116	0.92	Yes	1.00	**2.02**
		$U_5 - U_6$	-----	-1644.98	-392	71	-1152	-772	182	-247	264	378	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.143	1.00	Yes	0.845	0.095	0.95	Yes	1.00	**1.96**
		$U_6 - U_7$	-----	-1397.74	-260	-82	-958	-1434	-152	-197	337	135	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.192	1.00	Yes	0.796	0.128	0.93	Yes	1.00	**1.60**
		$U_7 - U_8$	-----	-1403.37	-179	-155	-1527	-823	-114	-192	205	52	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.185	1.00	Yes	0.799	0.136	0.94	Yes	1.00	**1.61**
		$U_8 - U_9$	-----	-1275.80	-244	158	-960	-399	-109	-208	310	-229	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.121	1.00	Yes	0.865	0.102	0.97	Yes	1.00	**1.79**
		$U_9 - U_{10}$	-----	-974.17	-48	377	-1141	-130	-149	-157	261	-49	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.151	1.00	Yes	0.841	0.139	0.98	Yes	1.00	**1.91**
		$U_{10} - U_{11}$	659.17	-829.45	292	470	-1090	-97	-217	-183	335	-135	0.557	0.195	0.76	Yes	0.379	0.126	0.51	Yes	0.829	0.170	1.00	Yes	0.824	0.154	0.98	Yes	1.00	**2.92**
		$U_{11} - U_{12}$	934.29	-----	313	593	-1082	389	-388	-145	427	-112	0.789	0.205	1.00	Yes	0.530	0.137	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.22**
		$U_{12} - U_{13}$	1309.08	-----	-99	-176	-328	-131	26	-750	-235	-480	0.884	0.113	1.00	Yes	0.630	0.079	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.98**
		$U_{13} - U_{14}$	1243.71	-----	-868	3540	-434	1608	-416	-872	-499	-658	0.612	0.387	1.00	Yes	0.433	0.254	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.13**
		$U_{14} - U_{15}$	1277.94	-----	3192	-318	1302	67	-1037	-626	-817	-608	0.628	0.366	1.00	Yes	0.445	0.241	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.94**
		$U_{15} - U_{16}$	1514.34	-----	111	137	13	190	-705	156	-316	14	0.915	0.081	1.00	Yes	0.651	0.057	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.65**
		$U_{16} - U_{17}$	1188.99	-----	606	452	678	-555	-338	-81	245	190	0.876	0.121	1.00	Yes	0.583	0.079	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.14**
		$U_{17} - U_{18}$	823.33	-----	427	403	346	-384	-4	195	79	642	0.826	0.167	1.00	Yes	0.550	0.110	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.86**
		$U_{18} - U_{19}$	814.53	-517.41	524	421	392	-716	62	113	350	275	0.818	0.173	1.00	Yes	0.536	0.110	0.65	Yes	0.615	0.182	0.80	Yes	0.611	0.122	0.74	Yes	1.00	**3.35**
		$U_{19} - U_{20}$	613.79	-780.99	389	334	-126	-537	1	-62	128	419	0.576	0.143	0.72	Yes	0.382	0.093	0.48	Yes	0.867	0.128	1.00	Yes	0.862	0.086	0.95	Yes	1.00	**2.82**
		$U_{20} - U_{21}$	484.94	-947.10	218	210	-236	-570	-83	-73	290	169	0.376	0.114	0.50	Yes	0.263	0.075	0.34	Yes	0.871	0.122	1.00	Yes	0.864	0.083	0.95	Yes	1.00	**2.52**
		$U_{21} - U_{22}$	311.20	-833.42	75	153	-509	-1120	-29	30	185	340	0.241	0.199	0.45	Yes	0.171	0.134	0.31	Yes	0.766	0.228	1.00	Yes	0.761	0.162	0.93	Yes	1.00	**1.86**
		$U_{22} - U_{23}$	311.78	-834.67	162	55	-1105	-506	-3	-10	406	83	0.242	0.204	0.45	Yes	0.171	0.137	0.31	Yes	0.767	0.226	1.00	Yes	0.762	0.160	0.93	Yes	1.00	**1.86**
		$U_{23} - U_{24}$	450.70	-960.36	187	191	-509	-382	-108	-27	319	-163	0.350	0.109	0.46	Yes	0.245	0.071	0.32	Yes	0.883	0.112	1.00	Yes	0.876	0.074	0.96	Yes	1.00	**2.41**
		$U_{24} - U_{25}$	529.03	-794.48	299	304	-693	-99	-133	-27	391	-136	0.496	0.164	0.66	Yes	0.329	0.107	0.44	Yes	0.882	0.116	1.00	Yes	0.877	0.111	0.99	Yes	1.00	**2.54**
		$U_{25} - U_{26}$	814.83	-686.58	414	456	-744	373	-261	-2	302	-249	0.818	0.171	0.99	Yes	0.537	0.109	0.65	Yes	0.816	0.182	1.00	Yes	0.811	0.126	0.94	Yes	1.00	**3.56**
		$U_{26} - U_{27}$	844.18	-----	469	327	-617	442	-311	5	263	-287	0.847	0.150	1.00	Yes	0.564	0.099	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.34**
		$U_{27} - U_{28}$	1175.34	-----	447	446	-659	628	-477	82	242	-218	0.866	0.133	1.00	Yes	0.576	0.087	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.77**
		$U_{28} - U_{29}$	1509.25	-----	-304	129	-83	-2	110	-557	-339	-328	0.912	0.082	1.00	Yes	0.649	0.056	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.06**
		$U_{29} - U_{30}$	1305.73	-----	-399	3309	-18	1049	-504	-747	-310	-207	0.642	0.357	1.00	Yes	0.455	0.235	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		$U_{30} - U_{31}$	1287.99	-----	3221	-591	1068	-116	-897	-449	-314	-195	0.633	0.359	1.00	Yes	0.448	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		$U_{31} - U_{32}$	1357.20	-----	-21	126	-119	-204	-530	228	183	481	0.916	0.076	1.00	Yes	0.653	0.053	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.60**
		$U_{32} - U_{33}$	975.14	-----	505	328	418	-810	-101	-17	472	443	0.824	0.172	1.00	Yes	0.553	0.115	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.19**
		$U_{33} - U_{34}$	881.61	-719.35	480	372	-70	-914	-12	213	416	978	0.745	0.248	1.00	Yes	0.507	0.164	0.68	Yes	0.719	0.218	0.94	Yes	0.715	0.129	0.85	Yes	1.00	**3.51**
		$U_{34} - U_{35}$	448.98	-941.21	413	123	-61	-1078	180	149	591	461	0.329	0.195	0.53	Yes	0.223	0.132	0.36	Yes	0.817	0.177	1.00	Yes	0.812	0.131	0.95	Yes	1.00	**2.51**
		$U_{35} - U_{36}$	-----	-1247.27	213	-104	-313	-906	96	85	360	437	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.146	1.00	Yes	0.846	0.096	0.95	Yes	1.00	**2.26**
		$U_{36} - U_{37}$	-----	-1377.61	-40	52	-744	-1563	84	-3	406	267	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.201	1.00	Yes	0.784	0.139	0.93	Yes	1.00	**1.98**
		$U_{37} - U_{38}$	-----	-1381.15	143	-127	-1459	-953	41	22	324	232	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.204	1.00	Yes	0.786	0.130	0.92	Yes	1.00	**1.98**
		$U_{38} - U_{39}$	-----	-1631.87	185	-265	-726	-1262	129	-27	538	-69	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.147	1.00	Yes	0.838	0.105	0.95	Yes	1.00	**2.30**
		$U_{39} - U_{40}$	-----	-1561.97	-157	-328	-1522	-943	26	-13	441	92	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.185	1.00	Yes	0.802	0.126	0.93	Yes	1.00	**2.33**
		$U_{40} - U_{41}$	-----	-1459.55	-203	-330	-1167	-799	54	-98	393	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.154	1.00	Yes	0.831	0.104	0.94	Yes	1.00	**2.51**
		$U_{41} - U_{42}$	-----	-1220.85	-99	-157	-1138	-3	-71	-80	391	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.119	1.00	Yes	0.866	0.116	0.99	Yes	1.00	**2.86**
		$U_{42} - U_{43}$	-----	-858.63	-93	-70	-894	-190	-33	-71	331	-310	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.158	1.00	Yes	0.829	0.136	0.97	Yes	1.00	**3.07**
		$U_{43} - U_{44}$	-----	-531.97	55	-317	-1738	2172	-55	73	151	-1060	-----	-----	-----	-----	-----	-----	-----	-----	0.632	0.241	0.88	Yes	0.628	0.369	1.00	Yes	1.00	**4.83**
	Structure 3	$U_0 - U_1$	-----	-682.83	-25	-145	-207	-1108	10	-78	-159	-224	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.218	1.00	Yes	0.768	0.223	1.00	Yes	1.00	**7.21**
		$U_1 - U_2$	-----	-758.38	-39	-132	141	-668	-63	-233	-67	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.139	1.00	Yes	0.853	0.134	0.99	Yes	1.00	**2.97**
		$U_2 - U_3$	-----	-1105.22	-80	-157	37	-665	-51	342	-119	184	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.123	1.00	Yes	0.865	0.108	0.98	Yes	1.00	**2.75**
		$U_3 - U_4$	-----	-1412.56	-191	-308	-382	-907	497	831	237	278	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.176	1.00	Yes	0.810	0.100	0.91	Yes	1.00	**2.59**
		$U_4 - U_5$	-----	-1484.87	-400	-52	-646	-548	689	230	342	167	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.135	1.00	Yes	0.851	0.071	0.93	Yes	1.00	**2.26**
		$U_5 - U_6$	-----	-1366.96	-187	-281	-582	-1403	141	-149	260	314	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.205	1.00	Yes	0.784	0.155	0.94	Yes	1.00	**1.82**
		$U_6 - U_7$	-----	-1377.71	-380	-107	-1475	-455	-89	-186	398	57	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.197	1.00	Yes	0.790	0.163	0.96	Yes	1.00	**1.84**
		$U_7 - U_8$	-----	-1322.14	-161	8	-517	-314	-61	-179	288	-270	-----	-----	-----	-----	-----	-----	-----	-----	0.894	0.101	1.00	Yes	0.883	0.071	0.96	Yes	1.00	**2.17**
		$U_8 - U_9$	-----	-927.05	-95	187	-728	10	-36	-155	266	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.878	0.111	0.99	Yes	0.870	0.121	1.00	Yes	1.00	**1.92**
		$U_9 - U_{10}$	-----	-640.02	-49	257	-808	202	-113	-110	222	-177	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.143	0.97	Yes	0.817	0.181	1.00	Yes	1.00	**2.58**
		$U_{10} - U_{11}$	739.08	-----	341	241	-563	265	-264	-162	354	-405	0.802	0.191	1.00	Yes	0.543	0.128	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.52**
		$U_{11} - U_{12}$	818.06	-----	-543	1576	-155	559	-211	-522	-217	-189	0.670	0.328	1.00	Yes	0.459	0.224	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.33**
		$U_{12} - U_{13}$	995.74	-----	1611	-261	554	12	-630	-371	-276	-270	0.690	0.308	1.00	Yes	0.481	0.210	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.27**
		$U_{13} - U_{14}$	877.94	-----	225	461	69	-95	-408	-211	-117	290	0.840	0.154	1.00	Yes	0.587	0.106	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		$U_{14} - U_{15}$	741.40	-----	484	358	306	-353	-144	-37	154	35	0.850	0.141	1.00	Yes	0.573	0.092	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		$U_{15} - U_{16}$	508.39	-566.60	397	280	-145	-838	-70	135	92	459	0.583	0.277	0.86	Yes	0.400	0.189	0.59	Yes	0.771	0.229	1.00	Yes	0.764	0.199	0.97	Yes	1.00	**2.91**
		$U_{16} - U_{17}$	505.49	-573.04	466	177	-619	-408	59	81	446	216	0.579	0.222	0.81	Yes	0.398	0.152	0.55	Yes	0.780	0.216	1.00	Yes	0.773	0.147	0.92	Yes	1.00	**2.92**
		$U_{17} - U_{18}$	303.48	-618.10	416	-37	-290	-481	-96	65	317	-19	0.348	0.168	0.52	Yes	0.235	0.110	0.35	Yes	0.841	0.155	1.00	Yes	0.833	0.114	0.95	Yes	1.00	**2.76**
		$U_{18} - U_{19}$	-----	-545.21	231	-28	-632	-333	-96	40	514	-17	-----	-----	-----	-----	-----	-----	-----	-----	0.742	0.255	1.00	Yes	0.735	0.150	0.89	Yes	1.00	**2.67**
		$U_{19} - U_{20}$	-----	-525.37	296	-458	-1091	1217	-215	239	415	-760	-----	-----	-----	-----	-----	-----	-----	-----	0.715	0.161	0.88	Yes	0.708	0.289	1.00	Yes	1.00	**4.93**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass				
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																			
North Truss - Lower Chord	Structure 1	L_0 - L_1			329.37	-----	-135	-190	1030	-1340	50	184	-107	-393	0.504	0.486	1.00	Yes	0.297	0.296	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**21.55**
		L_1 - L_2			482.16	-----	157	-738	137	66	-154	-85	-24	-64	0.738	0.254	1.00	Yes	0.450	0.171	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.73**
		L_2 - L_3			718.98	-----	-466	-617	25	119	-97	-53	-40	47	0.827	0.164	1.00	Yes	0.479	0.099	0.58	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.36**
		L_3 - L_4			697.71	-----	-284	-756	114	344	-71	-76	87	72	0.803	0.197	1.00	Yes	0.477	0.128	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.74**
		L_4 - L_5			-----	-524.42	-744	480	109	601	-251	165	57	37	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.165	0.98	Yes	0.799	0.197	1.00	Yes	1.00	**2.16**
		L_5 - L_6			-----	-706.51	-93	218	155	582	385	124	70	121	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.167	1.00	Yes	0.815	0.129	0.95	Yes	1.00	**2.04**
		L_6 - L_7			-----	-1177.26	-181	274	-196	313	48	52	-8	115	-----	-----	-----	-----	-----	-----	-----	-----	0.958	0.033	1.00	Yes	0.948	0.049	1.00	Yes	1.00	**2.58**
		L_7 - L_8			-----	-1269.68	10	600	-3	1362	-64	-75	37	-3	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.184	1.00	Yes	0.804	0.180	0.99	Yes	1.00	**1.74**
		L_8 - L_9			-----	-1288.65	571	-30	1266	-50	-122	-144	-53	-53	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.172	1.00	Yes	0.816	0.168	0.99	Yes	1.00	**1.76**
		L_9 - L_{10}			-----	-1155.14	266	-152	399	-184	-98	30	90	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.940	0.039	0.98	Yes	0.930	0.063	1.00	Yes	1.00	**2.82**
		L_{10} - L_{11}			-----	-545.32	229	-237	627	-322	237	105	75	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.108	0.95	Yes	0.831	0.166	1.00	Yes	1.00	**2.63**
		L_{11} - L_{12}			555.94	-----	485	-929	563	-112	17	-145	94	-35	0.720	0.271	1.00	Yes	0.432	0.179	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.29**
		L_{12} - L_{13}			1134.79	-----	-168	-506	220	-45	64	13	24	28	0.896	0.097	1.00	Yes	0.573	0.058	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.97**
		L_{13} - L_{14}			1286.73	-----	306	-1632	353	-444	-1	-141	10	-3	0.757	0.237	1.00	Yes	0.490	0.144	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.59**
		L_{14} - L_{15}			1548.88	-----	-1826	-300	-368	-27	-325	32	-120	-64	0.757	0.243	1.00	Yes	0.492	0.147	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.79**
		L_{15} - L_{16}			1719.00	-----	-993	-1108	-205	-351	20	-379	-129	-52	0.840	0.160	1.00	Yes	0.539	0.094	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		L_{16} - L_{17}			1157.17	-----	-1357	194	-413	93	-683	93	-98	-52	0.732	0.260	1.00	Yes	0.475	0.161	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.32**
		L_{17} - L_{18}			1001.65	-----	-448	-97	-179	23	270	-26	-85	-19	0.872	0.121	1.00	Yes	0.558	0.073	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.51**
		L_{18} - L_{19}			409.75	-----	-535	390	-850	666	-120	170	-557	203	0.627	0.370	1.00	Yes	0.424	0.236	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.09**
		L_{19} - L_{20}			109.05	-460.87	-270	80	-546	256	105	23	142	32	0.167	0.193	0.37	Yes	0.102	0.130	0.24	Yes	0.837	0.120	0.96	Yes	0.830	0.164	1.00	Yes	1.00	**3.20**
	Structure 2	L_0 - L_1			408.06	-----	238	-973	830	-2192	37	127	-100	-348	0.496	0.503	1.00	Yes	0.295	0.324	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**15.04**
		L_1 - L_2			584.86	-----	531	-1324	129	-137	-94	-58	-62	-9	0.710	0.285	1.00	Yes	0.423	0.184	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.59**
		L_2 - L_3			1046.95	-----	144	-1049	-70	-99	-15	-25	61	83	0.836	0.163	1.00	Yes	0.550	0.094	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.56**
		L_3 - L_4			1391.69	-----	0	-1265	18	-383	-37	-14	178	78	0.826	0.165	1.00	Yes	0.557	0.106	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.57**
		L_4 - L_5			1834.57	-----	-821	-1312	-385	-187	-66	-140	90	223	0.855	0.139	1.00	Yes	0.566	0.083	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.57**
		L_5 - L_6			1933.85	-----	-756	-1767	-125	-297	-116	-130	127	-17	0.830	0.165	1.00	Yes	0.557	0.100	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		L_6 - L_7			1944.03	-----	-1700	-1856	-376	-24	-95	198	-176	42	0.823	0.175	1.00	Yes	0.547	0.102	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.79**
		L_7 - L_8			1388.03	-----	-1563	-495	-186	342	-171	-296	-128	7	0.796	0.197	1.00	Yes	0.523	0.116	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		L_8 - L_9			1142.63	-----	-1102	188	-33	582	-178	543	-22	18	0.799	0.200	1.00	Yes	0.538	0.126	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.73**
		L_9 - L_{10}			754.82	-752.95	-1270	139	-57	820	88	-306	32	105	0.674	0.240	0.92	Yes	0.392	0.149	0.55	Yes	0.796	0.150	0.95	Yes	0.791	0.203	1.00	Yes	1.00	**3.26**
		L_{10} - L_{11}			-----	-761.49	-596	439	136	543	-406	188	69	0	-----	-----	-----	-----	-----	-----	-----	-----	0.900	0.097	1.00	Yes	0.894	0.104	1.00	Yes	1.00	**2.39**
		L_{11} - L_{12}			-----	-1016.28	-312	438	-523	1173	132	282	47	11	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.119	0.96	Yes	0.833	0.160	1.00	Yes	1.00	**2.17**
		L_{12} - L_{13}			-----	-1516.32	-401	-70	-385	-605	177	-94	69	109	-----	-----	-----	-----	-----	-----	-----	-----	0.915	0.081	1.00	Yes	0.907	0.060	0.97	Yes	1.00	**2.33**
		L_{13} - L_{14}			-----	-1509.44	-348	1243	-844	2673	-194	-335	-84	-284	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.179	0.95	Yes	0.760	0.233	1.00	Yes	1.00	**1.64**
		L_{14} - L_{15}			-----	-1515.79	1185	-425	2615	-939	-370	-252	-342	-187	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.172	0.95	Yes	0.763	0.228	1.00	Yes	1.00	**1.63**
		L_{15} - L_{16}			-----	-1515.12	-376	55	-848	80	-180	38	-110	40	-----	-----	-----	-----	-----	-----	-----	-----	0.914	0.073	0.99	Yes	0.906	0.084	1.00	Yes	1.00	**2.07**
		L_{16} - L_{17}			-----	-1127.73	689	-89	1380	-182	254	69	115	-91	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.148	0.98	Yes	0.821	0.170	1.00	Yes	1.00	**1.80**
		L_{17} - L_{18}			-----	-837.74	387	-142	710	-284	108	-31	-15	-110	-----	-----	-----	-----	-----	-----	-----	-----	0.886	0.082	0.97	Yes	0.880	0.114	1.00	Yes	1.00	**2.01**
		L_{18} - L_{19}			-----	-649.18	288	-158	640	195	18	128	-7	32	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.121	1.00	Yes	0.865	0.123	0.99	Yes	1.00	**2.57**
		L_{19} - L_{20}			-----	-653.39	322	-626	539	336	155	-90	40	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.114	1.00	Yes	0.871	0.121	1.00	Yes	1.00	**3.28**
		L_{20} - L_{21}			983.46	-876.54	-250	-1102	777	361	-40	-32	-120	-114	0.795	0.177	0.98	Yes	0.523	0.102	0.63	Yes	0.839	0.130	0.97	Yes	0.833	0.164	1.00	Yes	1.00	**5.53**
		L_{21} - L_{22}			844.91	-429.15	-267	-1951	297	238	-36	-190	-82	-5	0.683	0.311	1.00	Yes	0.458	0.188	0.65	Yes	0.411	0.253	0.67	Yes	0.408	0.290	0.70	Yes	1.00	**3.11**
		L_{22} - L_{23}			842.75	-360.61	-1910	-378	221	269	-244	186	35	-22	0.681	0.311	1.00	Yes	0.457	0.188	0.65	Yes	0.345	0.254	0.60	Yes	0.343	0.284	0.63	Yes	1.00	**3.08**
		L_{23} - L_{24}			980.50	-686.97	-1169	-633	304	547	294	-87	40	119	0.792	0.206	1.00	Yes	0.521	0.120	0.65	Yes	0.658	0.198	0.86	Yes	0.653	0.174	0.83	Yes	1.00	**5.08**
		L_{24} - L_{25}			-----	-651.13	-533	53	334	287	-213	467	74	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.124	1.00	Yes	0.868	0.103	0.98	Yes	1.00	**4.83**
		L_{25} - L_{26}			-----	-672.65	-342	52	148	534	144	-131	36	103	-----	-----	-----	-----	-----	-----	-----	-----	0.902	0.088	0.99	Yes	0.896	0.103	1.00	Yes	1.00	**4.40**
		L_{26} - L_{27}			-----	-844.70	-254	282	-451	653	-54	187	-207	132	-----	-----	-----	-----	-----	-----	-----	-----	0.893	0.068	0.97	Yes	0.887	0.104	1.00	Yes	1.00	**2.40**
		L_{27} - L_{28}			-----	-1162.78	-138	394	-311	1229	193	285	187	108	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.130	0.99	Yes	0.847	0.152	1.00	Yes	1.00	**2.20**
		L_{28} - L_{29}			-----	-1535.76	-26	-257	-122	-691	138	-38	-21	-25	-----	-----	-----	-----	-----	-----	-----	-----	0.926	0.069	1.00	Yes	0.919	0.069	0.99	Yes	1.00	**2.27**
		L_{29} - L_{30}			-----	-1536.27	-361	937	-907	2584	-91	-179	-72	-187	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.158	0.94	Yes	0.773	0.226	1.00	Yes	1.00	**1.82**
		L_{30} - L_{31}			-----	-1474.76	1179	-377	2947	-1018	-50	-44	-201	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.749	0.182	0.94	Yes	0.742	0.257	1.00	Yes	1.00	**2.20**
		L_{31} - L_{32}			-----	-1499.65	-95	-385	-793	-204	15	60	-36	7	-----	-----	-----	-----	-----	-----	-----	-----	0.912	0.086	1.00	Yes	0.905	0.080	0.99	Yes	1.00	**2.93**
		L_{32} - L_{33}			-----	-1013.31	265	-338	1230	-509	146	60	49	-111	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.110	0.95	Yes	0.831	0.168	1.00	Yes	1.00	**2.68**
		L_{33} - L_{34}			425.69	-752.95	233	-617	416	227	168	-53	-33	-87	0.425	0.131	0.56	Yes	0.249	0.082	0.34	Yes	0.890	0.060	0.96	Yes	0.884	0.108	1.00	Yes	1.00	**3.36**
		L_{34} - L_{35}			877.61	-817.89	-208	-637	788	122	-1	346	-28	46	0.783	0.168	0.96	Yes	0.456	0.103	0.56	Yes	0.865	0.126	1.00	Yes	0.859	0.126	0.99	Yes	1.00	**4.46**
		L_{35} - L_{36}			1187.21	-----	131	-1102	482	94	220	-33	89	-64	0.830	0.169	1.00	Yes	0.559	0.106	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		L_{36} - L_{37}			1409.26	-----	-438	-1597	335	66	-92	106	-100	-4	0.808	0.185	1.00	Yes	0.531	0.108	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.89**
		L_{37} - L_{38}			1906.88	-----	-1751	-1872	185	-301	-94	-336	7	-41	0.807	0.185	1.00	Yes	0.536	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		L_{38} - L_{39}			1880.03	-----	-1823	-1013	-198	-151	-115	459	-21	-21	0.807	0.190	1.00	Yes	0.541	0.117	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.34**
		L_{39} - L_{40}			1763.89	-----	-1417	-1025	-148	-288	23	-535	-43	-32	0.822	0.170	1.00	Yes	0.544	0.102	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.69**
		L_{40} - L_{41}			1330.53	-----	-1411	-91	-250	-63	-590	145	-43	-10	0.782	0.212	1.00	Yes	0.526	0.133	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.86**
		L_{41} - L_{42}			1016.85	-----	-1224	240	-104	-84	-113	-194	-18	9	0.801	0.198	1.00	Yes	0.526	0.118	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.30**
		L_{42} - L_{43}			559.43	-----	-948	249	-107	-9	-119	421	13	-4	0.715	0.280	1.00	Yes	0.427	0.161	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.14**
		L_{43} - L_{44}			219.45	-475.17	-60	-17	-1573	541	-153	-45	643	188	0.267	0.426	0.70	Yes	0.159	0.271	0.43	Yes	0.683	0.269	0.96	Yes	0.679	0.320	1.00	Yes	1.00	**6.88**
	Structure 3	L_0 - L_1			439.77	-393.32	92	-349	580	-868	-30	-138	33	149	0.700	0.295	1.00	Yes	0.429	0.197	0.63	Yes	0.742	0.152	0.90	Yes	0.736	0.262	1.00	Yes	1.00	**5.77**
		L_1 - L_2			548.09	-----	235	-471	187	-198	-68	34	-25	24	0.839	0.156	1.00	Yes	0.567	0.097	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.09**
		L_2 - L_3			1021.09	-----	-44	-387	4	-169	237	255	8	-2	0.889	0.107	1.00	Yes	0.569	0.065	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.90**
		L_3 - L_4			1290.30	-----	117	-1177	58	-346	41	6	30	51	0.816	0.177	1.00	Yes	0.529	0.109	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.83**
		L_4 - L_5			1766.91	-----	-912	-957	-318	-208	-113	-175	75	107	0.863	0.128	1.00	Yes	0.554	0.075	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.68**
		L_5 - L_6			1552.18	-----	-295	-1887	-82	-346	-97	-138	142	78	0.758	0.237	1.00	Yes	0.493	0.143	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.95**
		L_6 - L_7			1289.51	-----	-1586	97	-402	241	-248	214	-185	19	0.758	0.239	1.00	Yes	0.491	0.146	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.58**
		L_7 - L_8			1111.36	-----	-531	-309	-67	150	167	4	-25	44	0.877	0.114	1.00	Yes	0.561	0.068	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.31**
		L_8 - L_9			533.87	-----	-887	339	-133	397	-319	372	-3	45	0.691	0.300	1.00	Yes	0.415	0.195	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.35**
		L_9 - L_{10}			-----	-541.85	-315	128	-489	636	249	115	164	128	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.090	0.93	Yes	0.826	0.168	1.00	Yes	1.00	**3.45**
		L_{10} - L_{11}			-----	-1145.17	-171	217	-313	439	33	-117	-53	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.932	0.035	0.97	Yes	0.922	0.069	1.00	Yes	1.00	**3.06**
		L_{11} - L_{12}			-----	-1259.40	-40	474	-73	1247	-169	-208	-234	-402	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.186	1.00	Yes	0.798	0.165	0.97	Yes	1.00	**1.89**
		L_{12} - L_{13}			-----	-1240.51	470	-23	1304	-60	-239	-214	-451	-278	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.200	1.00	Yes	0.786	0.173	0.96	Yes	1.00	**1.92**
		L_{13} - L_{14}			-----	-1178.56	129	-21	102	29	-250	-26	-191	80	-----	-----	-----	-----	-----	-----	-----	-----	0.959	0.035	1.00	Yes	0.949	0.020	0.97	Yes	1.00	**2.59**
		L_{14} - L_{15}			-----	-749.21	330	-157	571	170	99	-133	142	-29	-----	-----	-----	-----	-----	-----	-----	-----	0.874	0.125	1.00	Yes	0.864	0.126	1.00	Yes	1.00	**2.10**
		L_{15} - L_{16}			-----	-551.09	332	-509	420	197	-84	-109	-4	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.146	1.00	Yes	0.840	0.135	0.98	Yes	1.00	**1.89**
		L_{16} - L_{17}			691.63	-393.85	-695	-419	471	74	23	179	113	-69	0.796	0.197	1.00	Yes	0.473	0.127	0.60	Yes	0.538	0.148	0.69	Yes	0.533	0.168	0.71	Yes	1.00	**3.07**
		L_{17} - L_{18}			713.21	-271.12	-626	-598	206	52	175	-90	-3	18	0.821	0.179	1.00	Yes	0.475	0.107	0.59	Yes	0.370	0.205	0.58	Yes	0.367	0.151	0.52	Yes	1.00	**3.53**
		L_{18} - L_{19}			424.84	-----	-808	85	169	-40	-279	463	68	-173	0.650	0.342	1.00	Yes	0.397	0.226	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.79**
		L_{19} - L_{20}			142.93	-----	-223	132	-1484	881	1550	422	1334	363	0.219	0.778	1.00	Yes	0.129	0.467	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**16.87**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Verticals	Structure 1	$U_0 - L_0$			-----	-279.61	-44	70	-174	228	-64	-20	40	13	-----	-----	-----	-----	-----	-----	-----	-----	0.692	0.148	0.84	Yes	0.653	0.340	1.00	Yes	1.00	**1.62**
		$U_1 - L_1$			-----	-335.87	53	-42	-200	223	-13	-27	-82	6	-----	-----	-----	-----	-----	-----	-----	-----	0.734	0.102	0.84	Yes	0.711	0.285	1.00	Yes	1.00	**3.12**
		$U_2 - L_2$			159.12	-306.39	136	-153	-219	273	142	42	58	62	0.286	0.390	0.68	Yes	0.157	0.214	0.38	Yes	0.670	0.142	0.82	Yes	0.648	0.348	1.00	Yes	1.00	**4.64**
		$U_3 - L_3$			286.23	-----	225	-263	-256	298	343	102	202	141	0.515	0.480	1.00	Yes	0.283	0.264	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.36**
		$U_4 - L_4$			-----	-351.34	84	-84	193	-195	-343	-116	471	166	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.181	0.96	Yes	0.743	0.249	1.00	Yes	1.00	**3.02**
		$U_5 - L_5$			-----	-419.07	75	-91	239	-265	-60	-54	96	63	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.108	0.87	Yes	0.723	0.269	1.00	Yes	1.00	**1.95**
		$U_6 - L_6$			-----	-474.25	87	-86	213	-221	-86	-32	783	236	-----	-----	-----	-----	-----	-----	-----	-----	0.759	0.241	1.00	Yes	0.716	0.215	0.94	Yes	1.00	**1.64**
		$U_7 - L_7$			-----	-407.21	129	-144	278	-299	-156	32	173	60	-----	-----	-----	-----	-----	-----	-----	-----	0.724	0.144	0.87	Yes	0.664	0.331	1.00	Yes	1.00	**1.37**
		$U_8 - L_8$			-----	-1302.03	-14	9	-9	7	-102	5	563	118	-----	-----	-----	-----	-----	-----	-----	-----	0.940	0.054	1.00	Yes	0.903	0.003	0.91	Yes	1.00	**2.38**
		$U_9 - L_9$			-----	-631.62	-176	205	-400	456	-249	-99	-234	-172	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.132	0.91	Yes	0.731	0.265	1.00	Yes	1.00	**2.00**
		$U_{10} - L_{10}$			-----	-735.33	-124	106	-332	313	-710	-387	-554	-445	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.201	1.00	Yes	0.756	0.185	0.95	Yes	1.00	**2.41**
		$U_{11} - L_{11}$			-----	-660.56	-146	197	-385	488	-545	-376	-377	-372	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.170	0.97	Yes	0.769	0.226	1.00	Yes	1.00	**2.38**
		$U_{12} - L_{12}$			-----	-529.44	-126	121	-309	314	-329	-236	-109	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.150	0.92	Yes	0.726	0.268	1.00	Yes	1.00	**2.17**
		$U_{13} - L_{13}$			-----	-364.56	-81	100	-230	258	-173	-56	-2	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.737	0.132	0.87	Yes	0.698	0.294	1.00	Yes	1.00	**1.73**
		$U_{14} - L_{14}$			-----	-367.29	-58	67	-138	158	-269	-88	449	67	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.175	1.00	Yes	0.777	0.202	0.98	Yes	1.00	**3.47**
		$U_{15} - L_{15}$			88.93	-292.82	-63	60	269	-291	-67	-48	282	202	0.160	0.453	0.62	Yes	0.088	0.249	0.34	Yes	0.656	0.217	0.88	Yes	0.620	0.371	1.00	Yes	1.00	**4.30**
		$U_{16} - L_{16}$			-----	-306.30	23	-27	213	-226	-80	-100	1095	-53	-----	-----	-----	-----	-----	-----	-----	-----	0.690	0.305	1.00	Yes	0.648	0.289	0.94	Yes	1.00	**2.26**
		$U_{17} - L_{17}$			-----	-432.50	57	-71	219	-240	-120	-109	198	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.109	0.92	Yes	0.746	0.244	1.00	Yes	1.00	**1.82**
		$U_{18} - L_{18}$			-----	-535.44	137	-144	419	-437	-130	-115	213	-205	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.090	0.88	Yes	0.745	0.247	1.00	Yes	1.00	**2.01**
		$U_{19} - L_{19}$			-----	-631.39	164	-163	555	-535	-113	-43	249	-56	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.114	0.91	Yes	0.735	0.258	1.00	Yes	1.00	**2.29**
		$U_{20} - L_{20}$			-----	-559.32	159	-258	273	-460	22	3	528	69	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.219	1.00	Yes	0.685	0.221	0.91	Yes	1.00	**1.48**
	Structure 2	$U_0 - L_0$			-----	-659.59	-144	188	-456	560	-73	-12	27	5	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.119	0.95	Yes	0.739	0.253	1.00	Yes	1.00	**2.26**
		$U_1 - L_1$			-----	-723.25	-94	102	-477	511	-121	-28	-102	22	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.077	0.91	Yes	0.775	0.217	1.00	Yes	1.00	**2.85**
		$U_2 - L_2$			-----	-591.32	-82	92	-456	473	-95	-45	-9	-1	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.079	0.88	Yes	0.753	0.242	1.00	Yes	1.00	**2.50**
		$U_3 - L_3$			-----	-494.51	-42	49	-222	240	100	-46	-44	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.079	0.93	Yes	0.776	0.219	1.00	Yes	1.00	**2.17**
		$U_4 - L_4$			-----	-344.20	5	4	-204	211	285	86	-86	-9	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.163	0.95	Yes	0.728	0.270	1.00	Yes	1.00	**2.31**
		$U_5 - L_5$			-----	-333.94	76	-71	-195	226	315	189	-48	-35	-----	-----	-----	-----	-----	-----	-----	-----	0.754	0.211	0.97	Yes	0.707	0.289	1.00	Yes	1.00	**3.22**
		$U_6 - L_6$			271.97	-----	173	-193	-302	315	364	254	164	-39	0.489	0.508	1.00	Yes	0.269	0.279	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.76**
		$U_7 - L_7$			-----	-371.15	70	-82	91	-101	-68	-17	444	27	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.158	1.00	Yes	0.785	0.129	0.92	Yes	1.00	**3.28**
		$U_8 - L_8$			-----	-455.22	115	-127	370	-387	-62	-112	125	-58	-----	-----	-----	-----	-----	-----	-----	-----	0.660	0.111	0.78	Yes	0.656	0.339	1.00	Yes	1.00	**2.72**
		$U_9 - L_9$			-----	-693.89	199	-199	546	-581	-105	-119	1372	169	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.200	0.98	Yes	0.744	0.247	1.00	Yes	1.00	**2.80**
		$U_{10} - L_{10}$			-----	-786.72	182	-191	548	-583	-94	-115	337	-171	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.101	0.88	Yes	0.736	0.257	1.00	Yes	1.00	**2.79**
		$U_{11} - L_{11}$			-----	-833.65	185	-184	468	-495	-160	-43	350	5	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.125	0.97	Yes	0.779	0.218	1.00	Yes	1.00	**2.31**
		$U_{12} - L_{12}$			-----	-894.07	146	-118	505	-487	-126	30	207	201	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.101	0.96	Yes	0.775	0.216	1.00	Yes	1.00	**2.36**
		$U_{13} - L_{13}$			-----	-731.82	212	-217	565	-547	-146	6	342	84	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.177	1.00	Yes	0.706	0.270	0.98	Yes	1.00	**2.06**
		$U_{14} - L_{14}$			-----	-1253.75	95	-92	179	-177	-41	224	475	298	-----	-----	-----	-----	-----	-----	-----	-----	0.917	0.077	1.00	Yes	0.831	0.032	0.87	Yes	1.00	**2.37**
		$U_{15} - L_{15}$			-----	-701.98	-76	89	-671	666	-315	34	-32	60	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.164	0.95	Yes	0.677	0.321	1.00	Yes	1.00	**3.36**
		$U_{16} - L_{16}$			-----	-701.72	-61	33	-464	414	-820	-248	-602	-241	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.184	1.00	Yes	0.752	0.197	0.95	Yes	1.00	**2.39**
		$U_{17} - L_{17}$			-----	-637.56	-118	108	-540	530	-482	-305	-297	-302	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.155	0.95	Yes	0.742	0.251	1.00	Yes	1.00	**2.13**
		$U_{18} - L_{18}$			-----	-605.40	-112	100	-412	437	-273	-245	69	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.118	0.93	Yes	0.771	0.223	1.00	Yes	1.00	**1.93**
		$U_{19} - L_{19}$			-----	-481.01	-73	71	-288	291	-246	-149	-123	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.724	0.121	0.85	Yes	0.718	0.280	1.00	Yes	1.00	**2.37**
		$U_{20} - L_{20}$			-----	-383.30	-42	40	-215	227	-235	-133	-20	-99	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.143	0.93	Yes	0.734	0.259	1.00	Yes	1.00	**2.42**
		$U_{21} - L_{21}$			-----	-315.21	-30	32	-239	256	-219	-97	43	3	-----	-----	-----	-----	-----	-----	-----	-----	0.712	0.158	0.87	Yes	0.667	0.327	1.00	Yes	1.00	**2.74**
		$U_{22} - L_{22}$			-----	-380.38	4	-5	-14	20	-212	-84	501	73	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.139	1.00	Yes	0.805	0.026	0.84	Yes	1.00	**3.45**
		$U_{23} - L_{23}$			-----	-304.15	20	-24	261	-275	461	57	234	159	-----	-----	-----	-----	-----	-----	-----	-----	0.687	0.202	0.89	Yes	0.644	0.352	1.00	Yes	1.00	**3.41**
		$U_{24} - L_{24}$			-----	-340.47	43	-48	198	-215	-70	-7	1003	95	-----	-----	-----	-----	-----	-----	-----	-----	0.698	0.300	1.00	Yes	0.652	0.246	0.90	Yes	1.00	**2.06**
		$U_{25} - L_{25}$			-----	-469.98	53	-49	309	-306	-92	10	384	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.121	0.83	Yes	0.702	0.297	1.00	Yes	1.00	**2.25**
		$U_{26} - L_{26}$			-----	-592.75	99	-94	428	-466	-123	0	446	22	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.122	0.92	Yes	0.755	0.238	1.00	Yes	1.00	**2.00**
		$U_{27} - L_{27}$			-----	-629.25	96	-92	560	-564	-160	22	249	156	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.096	0.88	Yes	0.732	0.262	1.00	Yes	1.00	**2.17**
		$U_{28} - L_{28}$			-----	-684.16	54	-34	477	-454	-231	74	1117	158	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.207	1.00	Yes	0.733	0.202	0.94	Yes	1.00	**2.13**
		$U_{29} - L_{29}$			-----	-697.51	113	-137	667	-656	-215	32	486	104	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.219	1.00	Yes	0.672	0.319	1.00	Yes	1.00	**2.83**
		$U_{30} - L_{30}$			-----	-1224.81	-17	6	56	-89	-83	118	473	209	-----	-----	-----	-----	-----	-----	-----	-----	0.912	0.083	1.00	Yes	0.828	0.016	0.85	Yes	1.00	**2.57**
		$U_{31} - L_{31}$			-----	-742.46	-97	97	-589	585	-315	-19	-46	35	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.164	1.00	Yes	0.716	0.282	1.00	Yes	1.00	**2.94**
		$U_{32} - L_{32}$			-----	-839.93	-79	53	-441	400	-688	-264	-482	-234	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.190	1.00	Yes	0.728	0.189	0.92	Yes	1.00	**2.60**
		$U_{33} - L_{33}$			-----	-838.11	-119	105	-410	426	-432	-344	-33	-272	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.145	1.00	Yes	0.790	0.191	0.99	Yes	1.00	**2.55**
		$U_{34} - L_{34}$			-----	-805.60	-125	111	-503	540	-321	-334	-221	-389	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.126	0.93	Yes	0.753	0.238	1.00	Yes	1.00	**3.39**
		$U_{35} - L_{35}$			-----	-706.47	-148	144	-517	555	-121	-95	-32	-102	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.071	0.86	Yes	0.757	0.235	1.00	Yes	1.00	**3.13**
		$U_{36} - L_{36}$			-----	-474.97	-82	92	-340	358	89	71	105	35	-----	-----	-----	-----	-----	-----	-----	-----	0.689	0.102	0.80	Yes	0.684	0.313	1.00	Yes	1.00	**2.60**
		$U_{37} - L_{37}$			-----	-366.82	-61	72	-113	135	-104	-20	371	61	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.166	1.00	Yes	0.776	0.172	0.95	Yes	1.00	**3.25**
		$U_{38} - L_{38}$			301.48	-----	-230	254	259	-256	219	119	433	375	0.542	0.456	1.00	Yes	0.298	0.251	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.41**
		$U_{39} - L_{39}$			94.09	-278.31	-82	80	158	-184	61	0	1246	51	0.169	0.596	0.77	Yes	0.093	0.328	0.43	Yes	0.629	0.365	1.00	Yes	0.589	0.236	0.83	Yes	1.00	**2.99**
		$U_{40} - L_{40}$			-----	-339.11	-30	23	214	-217	14	-22	305	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.122	0.90	Yes	0.718	0.278	1.00	Yes	1.00	**2.41**
		$U_{41} - L_{41}$			-----	-488.18	12	-15	240	-254	10	-20	206	-122	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.086	0.92	Yes	0.766	0.232	1.00	Yes	1.00	**2.24**
		$U_{42} - L_{42}$			-----	-588.98	34	-43	473	-487	12	-26	271	-168	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.077	0.87	Yes	0.751	0.249	1.00	Yes	1.00	**2.42**
		$U_{43} - L_{43}$			-----	-703.82	51	-65	579	-576	-58	-58	335	92	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.107	0.92	Yes	0.754	0.246	1.00	Yes	1.00	**2.67**
		$U_{44} - L_{44}$			-----	-635.01	109	-121	282	-455	-161	-27	933	158	-----	-----	-----	-----	-----	-----	-----	-----	0.760	0.231	1.00	Yes	0.681	0.193	0.88	Yes	1.00	**1.98**
	Structure 3	$U_0 - L_0$			-----	-617.12	-134	181	-466	539	-59	-8	211	28	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.149	0.99	Yes	0.741	0.258	1.00	Yes	1.00	**2.61**
		$U_1 - L_1$			-----	-663.69	-104	117	-447	472	-121	-3	-22	126	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.081	0.91	Yes	0.772	0.219	1.00	Yes	1.00	**3.10**
		$U_2 - L_2$			-----	-545.76	-101	108	-406	425	-143	-44	21	26	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.089	0.89	Yes	0.759	0.240	1.00	Yes	1.00	**2.63**
		$U_3 - L_3$			-----	-449.01	-41	54	-197	219	49	-62	0	-21	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.083	0.93	Yes	0.775	0.222	1.00	Yes	1.00	**2.23**
		$U_4 - L_4$			-----	-330.66	-11	16	-219	233	231	51	-42	14	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.147	0.90	Yes	0.700	0.298	1.00	Yes	1.00	**2.69**
		$U_5 - L_5$			-----	-309.52	47	-45	-248	269	229	155	-6	18	-----	-----	-----	-----	-----	-----	-----	-----	0.694	0.186	0.88	Yes	0.655	0.344	1.00	Yes	1.00	**3.53**
		$U_6 - L_6$			-----	-369.68	43	-49	105	-112	-9	5	477	66	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.173	1.00	Yes	0.782	0.143	0.93	Yes	1.00	**3.42**
		$U_7 - L_7$			-----	-359.48	69	-81	246	-267	-8	-83	86	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.727	0.107	0.84	Yes	0.689	0.305	1.00	Yes	1.00	**2.13**
		$U_8 - L_8$			-----	-510.66	111	-108	307	-316	-61	-120	1117	216	-----	-----	-----	-----	-----	-----	-----	-----	0.738	0.255	1.00	Yes	0.701	0.270	0.98	Yes	1.00	**2.21**
		$U_9 - L_9$			-----	-651.21	130	-168	415	-512	-180	-136	239	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.120	0.91	Yes	0.758	0.238	1.00	Yes	1.00	**2.41**
		$U_{10} - L_{10}$			-----	-799.32	118	-115	391	-402	-199	-93	385	85	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.129	0.96	Yes	0.789	0.208	1.00	Yes	1.00	**2.68**
		$U_{11} - L_{11}$			-----	-644.51	168	-193	429	-489	-111	-11	362	135	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.147	0.92	Yes	0.728	0.272	1.00	Yes	1.00	**1.96**
		$U_{12} - L_{12}$			-----	-1242.46	69	-97	100	-167	-30	64	820	327	-----	-----	-----	-----	-----	-----	-----	-----	0.897	0.100	1.00	Yes	0.861	0.031	0.90	Yes	1.00	**2.49**
		$U_{13} - L_{13}$			-----	-443.03	-70	81	-292	314	-209	-2	-28	45	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.144	0.89	Yes	0.683	0.309	1.00	Yes	1.00	**2.30**
		$U_{14} - L_{14}$			-----	-517.81	-47	28	-222	212	-679	-310	-496	-261	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.208	1.00	Yes	0.743	0.194	0.94	Yes	1.00	**2.46**
		$U_{15} - L_{15}$			-----	-436.78	-48	52	-227	238	-244	-173	-311	-269	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.155	0.95	Yes	0.754	0.241	1.00	Yes	1.00	**2.22**
		$U_{16} - L_{16}$			-----	-349.75	-69	68	-190	196	-408	-255	172	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.194	0.97	Yes	0.740	0.251	1.00	Yes	1.00	**3.06**
		$U_{17} - L_{17}$			308.58	-----	-268	309	203	-221	-25	99	-46	139	0.555	0.436	1.00	Yes	0.305	0.240	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.87**
		$U_{18} - L_{18}$			142.27	-248.61	-130	146	152	-197	-149	21	1605	371	0.256	0.717	0.98	Yes	0.141	0.394	0.54	Yes	0.543	0.450	1.00	Yes	0.526	0.252	0.78	Yes	1.00	**3.44**
		$U_{19} - L_{19}$			84.58	-313.73	-87	72	261	-243	-91	20	254	52	0.152	0.407	0.56	Yes	0.084	0.224	0.31	Yes	0.685	0.144	0.83	Yes	0.664	0.334	1.00	Yes	1.00	**2.76**
		$U_{20} - L_{20}$			-----	-307.87	13	-15	61	-169	-74	-24	673	216	-----	-----	-----	-----	-----	-----	-----	-----	0.688	0.305	1.00	Yes	0.651	0.216	0.87	Yes	1.00	**1.59**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

					Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression									
			Vehicle	Pedestrian	Max.	Max.	Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
DL Factor:			1.300	1.300	Tension	Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
LL Factor:			2.167	1.625	(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																
North Truss - Diagonals	Structure 1	$U_0 - L_1$			628.15	-----	-126	73	-5	-11	-35	-93	17	48	0.824	0.171	1.00	Yes	0.498	0.094	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.55**
		$U_1 - L_2$			464.05	-169.88	-90	9	32	-25	-163	-120	34	20	0.835	0.163	1.00	Yes	0.459	0.090	0.55	Yes	0.390	0.150	0.54	Yes	0.359	0.116	0.48	Yes	1.00	**3.86**
		$U_2 - L_3$			-----	-334.72	-138	1	69	-35	-115	-125	75	55	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.222	1.00	Yes	0.708	0.177	0.89	Yes	1.00	**5.70**
		$U_3 - L_4$			-----	-323.11	-69	-112	11	-57	-153	-373	117	-90	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.257	1.00	Yes	0.684	0.143	0.83	Yes	1.00	**4.14**
		$U_4 - L_4$			566.79	-----	-84	41	-19	24	-301	-263	-38	-78	0.839	0.156	1.00	Yes	0.461	0.086	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.21**
		$U_5 - L_5$			620.35	-----	-152	257	-49	101	-636	-181	33	-33	0.733	0.262	1.00	Yes	0.403	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.05**
		$U_7 - L_6$			653.64	-----	-280	280	-83	109	-107	-222	348	186	0.773	0.223	1.00	Yes	0.425	0.122	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.11**
		$U_8 - L_7$			640.14	-----	-98	316	6	142	-273	-169	341	228	0.757	0.242	1.00	Yes	0.416	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.27**
		$U_9 - L_8$			913.10	-----	28	421	21	144	580	339	344	98	0.730	0.261	1.00	Yes	0.452	0.147	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.13**
		$U_9 - L_{10}$			967.55	-----	-267	308	-78	89	625	544	171	131	0.773	0.217	1.00	Yes	0.479	0.123	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.06**
		$U_{10} - L_{11}$			962.42	-----	-185	254	-60	100	393	459	-20	167	0.813	0.178	1.00	Yes	0.503	0.100	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.77**
		$U_{11} - L_{12}$			846.65	-----	-231	153	-71	47	357	366	-11	138	0.838	0.162	1.00	Yes	0.461	0.089	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.63**
		$U_{12} - L_{13}$			644.35	-----	-201	172	-79	65	161	72	-34	-17	0.785	0.207	1.00	Yes	0.494	0.116	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.20**
		$U_{13} - L_{14}$			458.10	-----	-106	30	-32	11	26	-59	-65	-112	0.824	0.168	1.00	Yes	0.453	0.093	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.18**
		$U_{15} - L_{14}$			-----	-214.43	-124	-90	40	-55	-879	-482	2	-20	-----	-----	-----	-----	-----	-----	-----	-----	0.502	0.493	1.00	Yes	0.454	0.159	0.62	Yes	1.00	**5.60**
		$U_{16} - L_{15}$			297.81	-----	-119	72	-11	-6	-1057	-212	-83	-81	0.536	0.458	1.00	Yes	0.295	0.252	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.50**
		$U_{17} - L_{16}$			492.29	-----	-139	90	-32	12	-578	-538	-105	-126	0.722	0.276	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.86**
		$U_{18} - L_{17}$			584.88	-----	-303	244	-109	73	-745	-524	-106	-112	0.691	0.307	1.00	Yes	0.380	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.00**
		$U_{19} - L_{18}$			643.26	-----	-338	249	-130	85	-759	-535	-60	-101	0.697	0.298	1.00	Yes	0.383	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.93**
		$U_{20} - L_{19}$			674.10	-----	-170	227	-94	91	-901	-378	-87	-35	0.730	0.264	1.00	Yes	0.402	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.12**
	Structure 2	$U_0 - L_1$			797.86	-----	-424	392	-96	81	-22	-70	-55	-29	0.789	0.207	1.00	Yes	0.434	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.00**
		$U_1 - L_2$			800.55	-----	-394	327	-72	51	-128	-43	-81	-6	0.792	0.202	1.00	Yes	0.436	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.04**
		$U_2 - L_3$			658.00	-----	-348	277	-62	46	-21	-18	1	111	0.778	0.217	1.00	Yes	0.428	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.57**
		$U_3 - L_4$			592.25	-----	-191	137	-24	4	-39	-46	135	75	0.789	0.202	1.00	Yes	0.434	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.48**
		$U_4 - L_5$			430.76	-----	-149	102	17	-25	-113	-13	105	-95	0.775	0.223	1.00	Yes	0.426	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.99**
		$U_5 - L_6$			427.64	-221.14	-139	61	67	-65	-72	3	12	-174	0.769	0.228	1.00	Yes	0.423	0.126	0.55	Yes	0.522	0.180	0.71	Yes	0.468	0.178	0.65	Yes	1.00	**4.27**
		$U_6 - L_7$			-----	-386.51	-113	-65	31	-109	-31	-198	125	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.164	1.00	Yes	0.740	0.129	0.87	Yes	1.00	**4.99**
		$U_8 - L_7$			523.51	-----	-226	70	-58	46	-629	-497	-142	-214	0.668	0.331	1.00	Yes	0.420	0.189	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		$U_9 - L_8$			611.83	-----	-311	196	-126	91	-1077	-458	-158	-170	0.663	0.336	1.00	Yes	0.364	0.185	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.05**
		$U_{10} - L_9$			757.62	-----	-319	202	-111	87	-614	-666	-110	-140	0.750	0.248	1.00	Yes	0.412	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		$U_{11} - L_{10}$			829.00	-----	-337	267	-105	135	-722	-546	144	15	0.755	0.242	1.00	Yes	0.415	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.08**
		$U_{12} - L_{11}$			874.34	-----	-343	365	-114	157	-334	-262	230	96	0.796	0.200	1.00	Yes	0.438	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.09**
		$U_{13} - L_{12}$			743.25	-----	-428	380	-143	146	-417	-239	375	157	0.735	0.261	1.00	Yes	0.404	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.80**
		$U_{14} - L_{13}$			722.67	-----	-265	416	-2	149	-566	-186	550	207	0.715	0.278	1.00	Yes	0.393	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.18**
		$U_{14} - L_{15}$			581.62	-----	-112	392	60	38	463	44	243	-62	0.688	0.306	1.00	Yes	0.378	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.39**
		$U_{15} - L_{16}$			629.56	-----	-374	358	-30	38	209	131	-66	-19	0.744	0.250	1.00	Yes	0.409	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.69**
		$U_{16} - L_{17}$			703.43	-----	-304	372	-38	80	40	242	-218	101	0.762	0.230	1.00	Yes	0.419	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.18**
		$U_{17} - L_{18}$			652.07	-----	-285	299	-47	80	186	329	-47	177	0.771	0.229	1.00	Yes	0.424	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.99**
		$U_{18} - L_{19}$			661.43	-----	-281	269	-23	77	324	256	86	115	0.782	0.218	1.00	Yes	0.430	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.78**
		$U_{19} - L_{20}$			599.82	-----	-208	174	-10	40	237	214	15	87	0.765	0.234	1.00	Yes	0.421	0.131	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.89**
		$U_{20} - L_{21}$			440.41	-----	-133	113	-11	24	129	50	-24	32	0.792	0.208	1.00	Yes	0.436	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.71**
		$U_{21} - L_{22}$			420.27	-----	-159	4	7	9	119	-13	-51	117	0.756	0.238	1.00	Yes	0.416	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.53**
		$U_{23} - L_{22}$			322.13	-----	-149	-30	-21	-55	-795	-449	-471	-144	0.579	0.420	1.00	Yes	0.319	0.231	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.20**
		$U_{24} - L_{23}$			332.84	-----	-109	85	-26	19	-877	-168	-284	-168	0.599	0.394	1.00	Yes	0.329	0.217	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.30**
		$U_{25} - L_{24}$			546.13	-----	-192	160	-17	65	-602	-593	192	90	0.696	0.295	1.00	Yes	0.383	0.168	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.49**
		$U_{26} - L_{25}$			616.49	-----	-269	252	-16	83	-623	-423	301	155	0.729	0.266	1.00	Yes	0.401	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.49**
		$U_{27} - L_{26}$			650.63	-----	-280	291	-39	81	-325	-241	261	119	0.769	0.224	1.00	Yes	0.423	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.05**
		$U_{28} - L_{27}$			648.48	-----	-298	354	-39	85	-662	-106	408	239	0.702	0.290	1.00	Yes	0.386	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.00**
		$U_{29} - L_{28}$			624.04	-----	-361	347	-51	61	-154	-254	288	149	0.738	0.257	1.00	Yes	0.406	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.21**
		$U_{30} - L_{29}$			574.08	-----	-143	364	50	74	-138	-58	601	235	0.679	0.315	1.00	Yes	0.373	0.173	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.67**
		$U_{30} - L_{31}$			702.57	-----	-172	486	33	60	514	78	282	-22	0.695	0.302	1.00	Yes	0.382	0.166	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		$U_{31} - L_{32}$			724.85	-----	-413	383	-63	71	226	136	-45	18	0.753	0.241	1.00	Yes	0.414	0.124	0.54	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.57**
		$U_{32} - L_{33}$			871.93	-----	-339	362	-55	97	95	326	-184	131	0.794	0.198	1.00	Yes	0.437	0.109	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.50**
		$U_{33} - L_{34}$			860.63	-----	-356	286	-53	97	268	430	31	243	0.784	0.210	1.00	Yes	0.431	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.99**
		$U_{34} - L_{35}$			810.30	-----	-328	227	-69	78	263	205	104	92	0.802	0.192	1.00	Yes	0.441	0.105	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.99**
		$U_{35} - L_{36}$			735.94	-----	-354	244	-89	81	125	45	18	2	0.797	0.202	1.00	Yes	0.438	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.86**
		$U_{36} - L_{37}$			599.02	-----	-239	109	-48	44	-17	-73	-54	-107	0.764	0.235	1.00	Yes	0.481	0.131	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		$U_{38} - L_{37}$			-----	-364.51	8	-23	37	-91	-151	-128	-359	-92	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.208	1.00	Yes	0.698	0.104	0.81	Yes	1.00	**3.89**
		$U_{39} - L_{38}$			254.92	-199.15	-96	24	60	-57	-1444	-252	-32	-16	0.458	0.541	1.00	Yes	0.252	0.298	0.55	Yes	0.474	0.497	0.98	Yes	0.421	0.123	0.55	Yes	1.00	**3.79**
		$U_{40} - L_{39}$			368.32	-----	-136	87	25	-28	-496	-544	-37	-36	0.662	0.332	1.00	Yes	0.364	0.182	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.89**
		$U_{41} - L_{40}$			531.53	-----	-171	120	-8	-6	-640	-413	-71	-60	0.709	0.290	1.00	Yes	0.390	0.160	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.22**
		$U_{42} - L_{41}$			585.99	-----	-310	252	-34	19	-685	-478	-47	-46	0.693	0.300	1.00	Yes	0.381	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.25**
		$U_{43} - L_{42}$			716.71	-----	-385	301	-50	31	-737	-542	12	-30	0.709	0.289	1.00	Yes	0.390	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.42**
		$U_{44} - L_{43}$			728.95	-----	-198	285	-87	70	-959	-304	82	-19	0.721	0.275	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.53**
	Structure 3	$U_0 - L_1$			699.59	-----	-421	338	-108	90	29	-132	-65	-53	0.758	0.237	1.00	Yes	0.417	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		$U_1 - L_2$			732.43	-----	-345	270	-92	60	-176	-75	-127	-45	0.793	0.205	1.00	Yes	0.436	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		$U_2 - L_3$			663.31	-----	-352	270	-88	54	-16	-4	-47	80	0.784	0.214	1.00	Yes	0.431	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.06**
		$U_3 - L_4$			554.67	-----	-160	111	-24	5	2	-30	76	48	0.813	0.180	1.00	Yes	0.447	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.70**
		$U_4 - L_5$			432.37	-----	-149	103	-2	-14	-95	-54	51	-107	0.778	0.221	1.00	Yes	0.428	0.121	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
		$U_5 - L_6$			401.99	-208.14	-161	-61	39	-54	-150	-164	-37	-216	0.723	0.268	1.00	Yes	0.398	0.148	0.55	Yes	0.488	0.313	0.81	Yes	0.440	0.206	0.65	Yes	1.00	**5.82**
		$U_7 - L_6$			411.58	-----	-100	14	-26	7	-444	-366	-151	-197	0.740	0.256	1.00	Yes	0.407	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.47**
		$U_8 - L_7$			534.85	-----	-181	141	-70	49	-949	-373	-198	-183	0.652	0.344	1.00	Yes	0.410	0.198	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.07**
		$U_9 - L_8$			788.30	-----	-233	126	-70	39	-684	-716	-62	-135	0.780	0.215	1.00	Yes	0.429	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.42**
		$U_{10} - L_9$			954.76	-----	-205	232	-62	77	-632	-545	40	-57	0.806	0.190	1.00	Yes	0.499	0.108	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.75**
		$U_{11} - L_{10}$			999.26	-----	-283	308	-82	88	-480	-357	217	84	0.799	0.198	1.00	Yes	0.495	0.112	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.86**
		$U_{12} - L_{11}$			949.55	-----	-92	365	-4	129	-590	-342	211	140	0.759	0.238	1.00	Yes	0.470	0.134	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.91**
		$U_{12} - L_{13}$			626.50	-----	-19	368	39	84	261	10	200	-27	0.741	0.257	1.00	Yes	0.407	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.38**
		$U_{13} - L_{14}$			667.70	-----	-273	303	-18	67	170	153	-26	22	0.789	0.204	1.00	Yes	0.434	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.21**
		$U_{14} - L_{15}$			671.03	-----	-134	274	-22	67	108	253	-59	75	0.793	0.202	1.00	Yes	0.436	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.69**
		$U_{15} - L_{16}$			584.30	-----	-82	56	-10	26	146	242	6	95	0.857	0.140	1.00	Yes	0.471	0.077	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.51**
		$U_{17} - L_{16}$			-----	-334.21	-60	-105	16	-48	-406	-181	-109	110	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.230	1.00	Yes	0.707	0.135	0.85	Yes	1.00	**4.35**
		$U_{18} - L_{17}$			-----	-258.43	-80	-12	55	-29	-1080	-215	274	182	-----	-----	-----	-----	-----	-----	-----	-----	0.595	0.403	1.00	Yes	0.547	0.103	0.65	Yes	1.00	**3.61**
		$U_{19} - L_{18}$			383.67	-184.41	-103	21	36	-24	-616	-560	249	194	0.690	0.310	1.00	Yes	0.380	0.170	0.55	Yes	0.423	0.319	0.75	Yes	0.390	0.131	0.53	Yes	1.00	**2.93**
		$U_{20} - L_{19}$			582.59	-----	26	23	-15	-11	-802	-469	204	209	0.764	0.232	1.00	Yes	0.462	0.128	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.10**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Upper Chord	Structure 1	U_0 - U_1			-----	-574.48	9	167	-356	-566	7	-71	299	-35	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.211	1	Yes	0.775	0.135	0.91	Yes	1.00	**6.02**
		U_1 - U_2			-----	-576.92	-40	174	-211	-632	-49	41	258	-167	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.208	1	Yes	0.778	0.150	0.93	Yes	1.00	**3.67**
		U_2 - U_3			258.00	-667.37	-49	368	-370	-257	-50	-89	296	-237	0.296	0.138	0.44	Yes	0.199	0.091	0.30	Yes	0.908	0.087	1	Yes	0.900	0.088	0.99	Yes	1.00	**3.64**
		U_3 - U_4			369.02	-549.03	123	296	-321	-759	-116	-96	19	-170	0.423	0.209	0.64	Yes	0.290	0.144	0.44	Yes	0.747	0.243	1	Yes	0.740	0.181	0.93	Yes	1.00	**3.19**
		U_4 - U_5			382.73	-561.33	139	296	-1005	-107	-216	-20	-87	-93	0.439	0.275	0.72	Yes	0.301	0.189	0.49	Yes	0.764	0.230	1	Yes	0.757	0.239	1.00	Yes	1.00	**3.29**
		U_5 - U_6			679.80	-----	276	454	-343	143	-294	18	-9	-647	0.779	0.217	1.00	Yes	0.526	0.144	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.24**
		U_6 - U_7			888.57	-----	344	206	-455	9	-360	147	-105	-104	0.850	0.146	1.00	Yes	0.594	0.101	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.19**
		U_7 - U_8			997.40	-----	-416	1759	-62	684	-328	307	-243	174	0.691	0.300	1.00	Yes	0.482	0.204	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.68**
		U_8 - U_9			859.26	-----	1504	-496	618	-162	67	343	32	185	0.704	0.294	1.00	Yes	0.482	0.200	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.60**
		U_9 - U_{10}			741.33	-----	238	293	181	-492	43	440	390	506	0.804	0.192	1.00	Yes	0.545	0.128	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.08**
		U_{10} - U_{11}			-----	-619.16	328	-17	167	-898	218	121	414	139	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.194	1	Yes	0.790	0.201	1.00	Yes	1.00	**4.74**
		U_{11} - U_{12}			-----	-916.48	223	-101	26	-681	159	104	332	14	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.125	1	Yes	0.860	0.113	0.98	Yes	1.00	**3.34**
		U_{12} - U_{13}			-----	-1330.71	-4	-153	-169	-474	220	-27	362	-255	-----	-----	-----	-----	-----	-----	-----	-----	0.900	0.095	1	Yes	0.889	0.065	0.96	Yes	1.00	**3.37**
		U_{13} - U_{14}			-----	-1355.79	-112	-357	-432	-1668	151	60	178	-5	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.210	1	Yes	0.777	0.184	0.97	Yes	1.00	**2.55**
		U_{14} - U_{15}			-----	-1351.28	-253	-187	-1567	-582	182	-56	265	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.215	1	Yes	0.775	0.173	0.95	Yes	1.00	**2.53**
		U_{15} - U_{16}			-----	-1463.19	-60	-414	-449	-989	19	-62	187	-555	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.147	1	Yes	0.839	0.109	0.95	Yes	1.00	**3.01**
		U_{16} - U_{17}			-----	-1419.43	-314	-186	-1271	-458	48	-171	179	-236	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.171	1	Yes	0.814	0.140	0.96	Yes	1.00	**3.22**
		U_{17} - U_{18}			-----	-1083.18	-160	-108	-624	17	-153	-212	-140	-418	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.140	1	Yes	0.848	0.102	0.95	Yes	1.00	**3.16**
		U_{18} - U_{19}			-----	-726.22	-192	-30	-654	38	-173	-162	-217	-314	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.171	1	Yes	0.817	0.131	0.95	Yes	1.00	**3.15**
		U_{19} - U_{20}			-----	-651.41	-154	-55	-1296	341	-103	9	116	-502	-----	-----	-----	-----	-----	-----	-----	-----	0.740	0.255	1	Yes	0.733	0.261	1.00	Yes	1.00	**7.91**
	Structure 2	U_0 - U_1			-----	-654.86	161	-49	-27	-1312	105	191	298	-84	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.198	0.98	Yes	0.773	0.223	1.00	Yes	1.00	**5.86**
		U_1 - U_2			-----	-809.20	-109	-102	-92	-841	347	684	285	-116	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.204	1	Yes	0.781	0.128	0.91	Yes	1.00	**2.96**
		U_2 - U_3			-----	-1181.62	-85	-165	-219	-1117	633	-10	149	20	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.152	1	Yes	0.839	0.114	0.96	Yes	1.00	**3.09**
		U_3 - U_4			-----	-1445.92	-341	-234	-912	-1128	97	-347	434	341	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.165	1	Yes	0.823	0.101	0.93	Yes	1.00	**2.91**
		U_4 - U_5			-----	-1548.53	-335	-262	-1005	-1460	-111	-391	581	31	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.190	1	Yes	0.795	0.121	0.92	Yes	1.00	**2.78**
		U_5 - U_6			-----	-1625.97	-332	107	-1275	-561	-154	-328	578	-5	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.152	1	Yes	0.835	0.106	0.95	Yes	1.00	**2.86**
		U_6 - U_7			-----	-1373.53	-215	-31	-857	-1496	-113	-277	-5	-406	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.204	1	Yes	0.782	0.133	0.92	Yes	1.00	**2.37**
		U_7 - U_8			-----	-1381.01	-123	-152	-1586	-745	-208	-232	-145	-339	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.203	1	Yes	0.786	0.141	0.93	Yes	1.00	**2.40**
		U_8 - U_9			-----	-1266.07	-234	174	-792	-568	-274	-196	29	-525	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.131	1	Yes	0.859	0.084	0.95	Yes	1.00	**2.67**
		U_9 - U_{10}			-----	-945.95	-32	347	-1343	-116	-317	-140	137	-131	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.173	1	Yes	0.816	0.163	0.98	Yes	1.00	**2.66**
		U_{10} - U_{11}			730.99	-836.33	247	508	-979	-119	-202	-38	-221	-385	0.617	0.185	0.81	Yes	0.420	0.121	0.55	Yes	0.836	0.159	1	Yes	0.831	0.138	0.97	Yes	1.00	**4.32**
		U_{11} - U_{12}			912.87	-----	248	566	-1030	371	-381	-156	-304	-623	0.771	0.221	1.00	Yes	0.518	0.148	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.03**
		U_{12} - U_{13}			1211.79	-----	151	-123	-529	-322	-1151	-592	-823	-735	0.818	0.176	1.00	Yes	0.583	0.123	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.26**
		U_{13} - U_{14}			1254.07	-----	-914	3657	-339	1646	-637	43	-457	-25	0.617	0.382	1.00	Yes	0.437	0.251	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.54**
		U_{14} - U_{15}			1301.36	-----	3498	-528	1551	-121	-139	458	-120	241	0.640	0.355	1.00	Yes	0.453	0.233	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.47**
		U_{15} - U_{16}			1470.86	-----	-90	23	-33	93	492	1180	180	511	0.889	0.110	1.00	Yes	0.633	0.078	0.72	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.65**
		U_{16} - U_{17}			1143.75	-----	627	456	443	-678	184	293	638	410	0.843	0.152	1.00	Yes	0.561	0.100	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.15**
		U_{17} - U_{18}			835.45	-----	472	423	268	-648	-26	166	325	300	0.839	0.158	1.00	Yes	0.558	0.104	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.63**
		U_{18} - U_{19}			791.63	-----	569	473	160	-817	-108	69	393	119	0.795	0.196	1.00	Yes	0.521	0.125	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.18**
		U_{19} - U_{20}			554.53	-758.86	423	307	-275	-714	-99	167	385	246	0.520	0.166	0.69	Yes	0.345	0.109	0.46	Yes	0.843	0.155	1	Yes	0.837	0.114	0.96	Yes	1.00	**4.13**
		U_{20} - U_{21}			462.76	-969.53	239	268	-189	-536	11	33	273	-327	0.359	0.113	0.48	Yes	0.251	0.074	0.33	Yes	0.891	0.100	1	Yes	0.885	0.078	0.97	Yes	1.00	**3.93**
		U_{21} - U_{22}			-----	-834.45	100	110	-517	-1358	-34	48	76	-97	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.232	1	Yes	0.762	0.197	0.96	Yes	1.00	**2.77**
		U_{22} - U_{23}			-----	-823.58	125	94	-1347	-517	-43	-23	89	-131	-----	-----	-----	-----	-----	-----	-----	-----	0.757	0.235	1	Yes	0.752	0.195	0.95	Yes	1.00	**2.73**
		U_{23} - U_{24}			-----	-908.02	248	167	-471	-600	-212	-1	25	-557	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.162	1	Yes	0.829	0.087	0.92	Yes	1.00	**3.49**
		U_{24} - U_{25}			431.33	-758.34	234	319	-881	-211	-207	44	89	-146	0.405	0.169	0.58	Yes	0.268	0.111	0.38	Yes	0.842	0.154	1	Yes	0.837	0.141	0.98	Yes	1.00	**3.52**
		U_{25} - U_{26}			745.53	-684.05	453	517	-873	337	-263	145	-166	-262	0.748	0.187	0.94	Yes	0.491	0.119	0.61	Yes	0.813	0.178	1	Yes	0.808	0.148	0.96	Yes	1.00	**5.30**
		U_{26} - U_{27}			829.00	-----	424	443	-723	334	-212	116	-176	-252	0.832	0.160	1.00	Yes	0.554	0.106	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.20**
		U_{27} - U_{28}			1025.11	-----	-341	1167	-692	530	-616	-932	-329	-512	0.755	0.245	1.00	Yes	0.503	0.161	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.54**
		U_{28} - U_{29}			1471.69	-----	-218	-110	12	-48	-943	-325	-308	-97	0.890	0.105	1.00	Yes	0.633	0.073	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.98**
		U_{29} - U_{30}			1286.48	-----	-612	3594	-159	1505	-475	241	-256	187	0.633	0.365	1.00	Yes	0.448	0.239	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.58**
		U_{30} - U_{31}			1268.87	-----	3639	-865	1501	-257	60	540	118	334	0.624	0.374	1.00	Yes	0.442	0.245	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.67**
		U_{31} - U_{32}			1205.00	-----	-202	94	-358	-552	534	1132	771	1019	0.814	0.177	1.00	Yes	0.580	0.124	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.11**
		U_{32} - U_{33}			927.20	-----	564	296	273	-864	310	299	729	384	0.783	0.211	1.00	Yes	0.526	0.140	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.85**
		U_{33} - U_{34}			847.34	-817.25	552	357	-191	-1060	100	249	528	303	0.716	0.214	0.93	Yes	0.487	0.140	0.63	Yes	0.817	0.179	1	Yes	0.812	0.150	0.97	Yes	1.00	**4.58**
		U_{34} - U_{35}			-----	-981.75	465	77	-196	-1176	105	39	384	-13	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.143	1	Yes	0.847	0.143	1.00	Yes	1.00	**3.24**
		U_{35} - U_{36}			-----	-1270.96	248	-188	-452	-824	93	132	555	112	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.131	1	Yes	0.862	0.088	0.95	Yes	1.00	**3.02**
		U_{36} - U_{37}			-----	-1414.62	-74	6	-699	-1608	165	-24	215	-223	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.187	1	Yes	0.806	0.143	0.95	Yes	1.00	**2.65**
		U_{37} - U_{38}			-----	-1404.47	115	-178	-1438	-759	21	38	72	-222	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.190	1	Yes	0.800	0.128	0.93	Yes	1.00	**2.61**
		U_{38} - U_{39}			-----	-1612.41	128	-360	-426	-1707	88	-82	286	-444	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.165	1	Yes	0.828	0.142	0.97	Yes	1.00	**2.87**
		U_{39} - U_{40}			-----	-1508.75	-275	-454	-1920	-871	-115	-119	218	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.211	1	Yes	0.775	0.159	0.94	Yes	1.00	**2.63**
		U_{40} - U_{41}			-----	-1474.11	-345	-410	-939	-856	-90	-97	-199	-416	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.149	1	Yes	0.839	0.084	0.93	Yes	1.00	**3.06**
		U_{41} - U_{42}			-----	-1178.20	-216	-192	-1174	-130	-73	103	-157	-381	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.156	1	Yes	0.836	0.120	0.96	Yes	1.00	**3.19**
		U_{42} - U_{43}			-----	-861.23	-227	-57	-858	-43	189	-8	-234	-376	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.162	1	Yes	0.831	0.130	0.97	Yes	1.00	**3.53**
		U_{43} - U_{44}			-----	-618.01	-26	-235	-1362	275	-8	19	-94	-390	-----	-----	-----	-----	-----	-----	-----	-----	0.734	0.264	1	Yes	0.730	0.231	0.97	Yes	1.00	**6.08**
	Structure 3	U_0 - U_1			-----	-665.63	158	-138	34	-1219	63	122	424	-146	-----	-----	-----	-----	-----	-----	-----	-----	0.756	0.211	0.97	Yes	0.749	0.245	1.00	Yes	1.00	**7.75**
		U_1 - U_2			-----	-705.63	-68	-105	-13	-619	249	510	317	-35	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.192	1	Yes	0.794	0.125	0.92	Yes	1.00	**3.14**
		U_2 - U_3			-----	-1075.75	-81	-109	-77	-633	517	2	242	37	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.144	1	Yes	0.842	0.103	0.95	Yes	1.00	**3.45**
		U_3 - U_4			-----	-1431.48	-141	-194	-500	-1085	124	-246	485	329	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.166	1	Yes	0.821	0.120	0.95	Yes	1.00	**3.70**
		U_4 - U_5			-----	-1526.32	-317	-26	-614	-469	-25	-319	184	-571	-----	-----	-----	-----	-----	-----	-----	-----	0.884	0.108	1	Yes	0.875	0.068	0.95	Yes	1.00	**3.45**
		U_5 - U_6			-----	-1333.74	-157	-235	-561	-1607	-44	-203	-9	-235	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.218	1	Yes	0.765	0.177	0.95	Yes	1.00	**2.59**
		U_6 - U_7			-----	-1344.95	-316	-92	-1708	-420	-81	-230	38	-198	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.217	1	Yes	0.771	0.188	0.96	Yes	1.00	**2.63**
		U_7 - U_8			-----	-1316.02	-118	-21	-470	-166	-232	-221	81	-289	-----	-----	-----	-----	-----	-----	-----	-----	0.890	0.101	1	Yes	0.879	0.065	0.95	Yes	1.00	**3.38**
		U_8 - U_9			-----	-904.48	-118	196	-838	-1	-98	-108	84	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.136	1	Yes	0.849	0.139	0.99	Yes	1.00	**2.88**
		U_9 - U_{10}			-----	-612.16	-41	290	-889	249	-225	-120	-221	-379	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.203	1	Yes	0.781	0.199	0.99	Yes	1.00	**4.13**
		U_{10} - U_{11}			736.00	-----	278	234	-480	240	-356	2	-542	-411	0.798	0.195	1.00	Yes	0.541	0.131	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.18**
		U_{11} - U_{12}			833.74	-----	-527	1514	-178	612	-454	-25	-295	9	0.683	0.310	1.00	Yes	0.467	0.211	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.60**
		U_{12} - U_{13}			1012.70	-----	1742	-387	646	-45	-285	188	-147	55	0.702	0.293	1.00	Yes	0.489	0.200	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.85**
		U_{13} - U_{14}			890.12	-----	198	366	-21	-270	-171	412	249	476	0.851	0.143	1.00	Yes	0.595	0.099	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.24**
		U_{14} - U_{15}			713.78	-----	464	293	349	-343	32	185	378	-142	0.818	0.174	1.00	Yes	0.552	0.115	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.51**
		U_{15} - U_{16}			380.72	-568.07	307	166	-122	-953	-20	157	108	115	0.436	0.253	0.69	Yes	0.299	0.174	0.48	Yes	0.773	0.212	0.99	Yes	0.766	0.226	1.00	Yes	1.00	**3.32**
		U_{16} - U_{17}			385.38	-588.93	347	109	-779	-346	20	89	202	-11	0.442	0.219	0.67	Yes	0.303	0.150	0.46	Yes	0.801	0.193	1	Yes	0.794	0.185	0.98	Yes	1.00	**3.41**
		U_{17} - U_{18}			219.28	-622.95	340	-107	-213	-622	-81	232	96	-353	0.251	0.208	0.46	Yes	0.170	0.136	0.31	Yes	0.848	0.150	1	Yes	0.840	0.148	0.99	Yes	1.00	**3.36**
		U_{18} - U_{19}			-----	-574.76	100	-19	-764	-180	215	55	207	5	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.215	1	Yes	0.775	0.182	0.96	Yes	1.00	**3.10**
		U_{19} - U_{20}			-----	-616.98	226	-304	-687	70	-22	47	221	-309	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.150	0.99	Yes	0.832	0.163	1.00	Yes	1.00	**6.05**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression																Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield													
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass										
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																										
Center Truss - Lower Chord	Structure 1	L_0 - L_1	128.16	-----	1064	-1467	687	-1030	-461	-1694	-235	-863	0.196	0.804	1.00	Yes	0.115	0.482	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**20.36**
		L_1 - L_2	447.76	-----	-39	-690	36	89	-499	229	54	1	0.685	0.314	1.00	Yes	0.418	0.207	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.67**
		L_2 - L_3	711.62	-----	-611	-561	27	174	199	-165	0	-18	0.819	0.179	1.00	Yes	0.474	0.107	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.90**
		L_3 - L_4	649.91	-290.73	-307	-929	82	324	-121	88	-19	-1	0.748	0.244	1.00	Yes	0.444	0.158	0.61	Yes	0.397	0.222	0.62	Yes	0.393	0.224	0.62	Yes									1.00	**3.98**
		L_4 - L_5	-----	-533.92	-670	284	102	493	-195	15	170	-109	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.143	0.97	Yes	0.813	0.177	1.00	Yes									1.00	**3.16**
		L_5 - L_6	-----	-735.93	-283	198	144	567	198	153	29	95	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.135	1	Yes	0.849	0.126	0.98	Yes									1.00	**3.21**
		L_6 - L_7	-----	-1196.16	-54	102	-133	122	117	-42	155	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.974	0.018	1	Yes	0.963	0.021	0.99	Yes									1.00	**3.65**
		L_7 - L_8	-----	-1254.85	-33	584	-99	1466	41	72	107	156	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.194	1	Yes	0.795	0.194	0.99	Yes									1.00	**2.42**
		L_8 - L_9	-----	-1269.72	554	-47	1383	-101	38	-14	123	54	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.178	1	Yes	0.804	0.183	0.99	Yes									1.00	**2.50**
		L_9 - L_{10}	-----	-1177.74	195	-165	312	-252	25	9	188	64	-----	-----	-----	-----	-----	-----	-----	-----	0.958	0.033	1	Yes	0.948	0.049	1.00	Yes									1.00	**4.31**
		L_{10} - L_{11}	-----	-541.44	236	-517	645	-363	18	-141	96	87	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.089	0.93	Yes	0.825	0.171	1.00	Yes									1.00	**4.15**
		L_{11} - L_{12}	589.07	-----	263	-750	389	-166	-186	174	-15	8	0.763	0.231	1.00	Yes	0.458	0.151	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.20**
		L_{12} - L_{13}	1126.17	-----	-296	-467	109	-78	7	-178	-15	-35	0.889	0.104	1.00	Yes	0.568	0.062	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.37**
		L_{13} - L_{14}	1278.37	-----	228	-1623	232	-391	-251	119	-105	61	0.752	0.245	1.00	Yes	0.487	0.150	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**3.41**
		L_{14} - L_{15}	1613.64	-----	-1558	-501	-344	-81	-314	113	-68	-51	0.788	0.210	1.00	Yes	0.512	0.127	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**3.81**
		L_{15} - L_{16}	1707.94	-----	-961	-1170	-185	-390	322	228	-79	10	0.834	0.164	1.00	Yes	0.536	0.096	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.71**
		L_{16} - L_{17}	1251.72	-----	-1219	74	-393	33	-259	-77	-35	-63	0.791	0.202	1.00	Yes	0.514	0.124	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.45**
		L_{17} - L_{18}	941.28	-----	-712	145	-176	-64	-228	-317	-6	24	0.820	0.178	1.00	Yes	0.525	0.107	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**5.89**
		L_{18} - L_{19}	495.21	-----	-621	287	-251	183	-29	-234	10	-3	0.758	0.235	1.00	Yes	0.513	0.148	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**5.17**
		L_{19} - L_{20}	260.61	-----	-1100	485	-1581	920	-69	-15	569	128	0.399	0.593	1.00	Yes	0.243	0.396	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**13.03**
	Structure 2	L_0 - L_1	68.61	-----	1059	-2597	583	-1695	-359	-1247	-177	-616	0.104	0.891	1.00	Yes	0.063	0.445	0.51	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**15.35**
		L_1 - L_2	571.75	-----	420	-1165	132	-128	-416	240	82	84	0.694	0.305	1.00	Yes	0.413	0.195	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.80**
		L_2 - L_3	1068.26	-----	-81	-884	-28	-93	252	-81	115	174	0.842	0.155	1.00	Yes	0.552	0.093	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.41**
		L_3 - L_4	1413.13	-----	-54	-1293	43	-256	-164	183	50	128	0.830	0.166	1.00	Yes	0.559	0.103	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.00**
		L_4 - L_5	1832.76	-----	-1039	-1285	-207	-161	234	-82	15	-13	0.854	0.137	1.00	Yes	0.566	0.082	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.16**
		L_5 - L_6	1937.95	-----	-794	-1605	-10	-246	-355	177	-92	56	0.832	0.164	1.00	Yes	0.558	0.101	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**3.92**
		L_6 - L_7	1956.07	-----	-1687	-1620	-303	-5	255	21	55	-33	0.828	0.164	1.00	Yes	0.550	0.096	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**3.77**
		L_7 - L_8	1363.74	-----	-1490	-444	-145	303	-602	-244	-60	80	0.782	0.214	1.00	Yes	0.514	0.128	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**3.15**
		L_8 - L_9	1117.56	-----	-1029	-48	-74	536	196	826	49	-141	0.782	0.217	1.00	Yes	0.527	0.138	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**3.50**
		L_9 - L_{10}	785.38	-744.25	-1323	166	-21	706	372	-140	-42	6	0.701	0.256	0.96	Yes	0.408	0.159	0.57	Yes	0.787	0.162	0.95	Yes	0.782	0.212	1.00	Yes									1.00	**4.46**
		L_{10} - L_{11}	-----	-734.59	-768	489	38	568	-211	-142	127	-47	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.104	0.98	Yes	0.863	0.134	1.00	Yes									1.00	**3.09**
		L_{11} - L_{12}	-----	-1001.99	-521	695	-683	1283	-327	-236	-26	20	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.123	0.96	Yes	0.822	0.175	1.00	Yes									1.00	**2.92**
		L_{12} - L_{13}	-----	-1481.39	-264	-266	-425	-845	64	-73	43	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.893	0.105	1	Yes	0.886	0.084	0.98	Yes									1.00	**3.16**
		L_{13} - L_{14}	-----	-1463.52	-488	1434	-1077	2960	-78	-111	-60	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.176	0.92	Yes	0.736	0.258	1.00	Yes									1.00	**2.10**
		L_{14} - L_{15}	-----	-1471.24	1394	-536	2876	-1113	-128	-109	-80	-76	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.168	0.92	Yes	0.740	0.251	1.00	Yes									1.00	**2.02**
		L_{15} - L_{16}	-----	-1492.11	-431	-54	-1036	-119	-66	-36	-12	-25	-----	-----	-----	-----	-----	-----	-----	-----	0.900	0.097	1	Yes	0.893	0.103	1.00	Yes									1.00	**2.84**
		L_{16} - L_{17}	-----	-1129.37	612	-64	1389	-272	22	-4	41	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.131	0.97	Yes	0.823	0.171	1.00	Yes									1.00	**2.63**
		L_{17} - L_{18}	-----	-838.36	431	-391	735	-360	-106	78	127	153	-----	-----	-----	-----	-----	-----	-----	-----	0.887	0.091	0.98	Yes	0.880	0.118	1.00	Yes									1.00	**3.19**
		L_{18} - L_{19}	-----	-659.69	279	-433	586	144	104	-66	-12	-51	-----	-----	-----	-----	-----	-----	-----	-----	0.885	0.093	0.98	Yes	0.879	0.113	1.00	Yes									1.00	**3.20**
		L_{19} - L_{20}	-----	-648.16	201	-669	478	281	-170	142	-71	-21	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.110	0.98	Yes	0.864	0.129	1.00	Yes									1.00	**3.96**
		L_{20} - L_{21}	1059.33	-813.11	-537	-894	592	258	9	-204	14	-65	0.845	0.152	1.00	Yes	0.554	0.091	0.65	Yes	0.768	0.127	0.9	Yes	0.763	0.130	0.90	Yes									1.00	**5.70**
		L_{21} - L_{22}	922.03	-496.63	-352	-1554	307	108	-258	318	-44	-37	0.735	0.261	1.00	Yes	0.492	0.164	0.66	Yes	0.469	0.196	0.67	Yes	0.466	0.227	0.70	Yes									1.00	**3.96**
		L_{22} - L_{23}	932.35	-----	-1514	-559	120	260	-263	114	82	-65	0.744	0.249	1.00	Yes	0.497	0.156	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.02**
		L_{23} - L_{24}	993.51	-702.49	-1087	-609	192	423	380	276	27	63	0.792	0.200	1.00	Yes	0.520	0.120	0.64	Yes	0.664	0.191	0.86	Yes	0.659	0.159	0.82	Yes									1.00	**5.32**
		L_{24} - L_{25}	425.41	-627.05	-831	218	210	464	-163	34	134	-134	0.482	0.185	0.67	Yes	0.285	0.118	0.41	Yes	0.841	0.118	0.96	Yes	0.836	0.160	1.00	Yes									1.00	**4.16**
		L_{25} - L_{26}	-----	-668.06	-550	385	133	545	3	71	19	74	-----	-----	-----	-----	-----	-----	-----	-----	0.896	0.084	0.98	Yes	0.890	0.106	1.00	Yes									1.00	**3.67**
		L_{26} - L_{27}	-----	-819.42	-364	422	-706	856	28	-171	86	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.078	0.95	Yes	0.860	0.137	1.00	Yes									1.00	**3.75**
		L_{27} - L_{28}	-----	-1133.30	-98	535	-353	1415	29	109	66	145	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.135	0.97	Yes	0.825	0.175	1.00	Yes									1.00	**2.97**
		L_{28} - L_{29}	-----	-1470.75	-130	-364	-242	-1016	121	16	170	7	-----	-----	-----	-----	-----	-----	-----	-----	0.887	0.109	1	Yes	0.880	0.101	0.99	Yes									1.00	**2.98**
		L_{29} - L_{30}	-----	-1467.92	-484	1307	-1114	2903	21	13	15	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.164	0.91	Yes	0.739	0.254	1.00	Yes									1.00	**2.16**
		L_{30} - L_{31}	-----	-1465.70	1336	-472	2989	-1104	-6	-18	-42	-44	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.173	0.92	Yes	0.738	0.261	1.00	Yes									1.00	**2.19**
		L_{31} - L_{32}	-----	-1487.18	-295	-164	-916	-333	5	15	-5	-17	-----	-----	-----	-----	-----	-----	-----	-----	0.897	0.100	1	Yes	0.890	0.091	0.99	Yes									1.00	**3.21**
		L_{32} - L_{33}	-----	-1001.07	620	-567	1269	-486	77	-29	164	-108	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.120	0.95	Yes	0.821	0.173	1.00	Yes									1.00	**2.88**
		L_{33} - L_{34}	-----	-736.35	464	-715	534	114	-21	190	1	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.102	0.98	Yes	0.865	0.125	1.00	Yes									1.00	**2.99**
		L_{34} - L_{35}	792.97	-783.23	27	-1064	774	21	180	-141	4	-52	0.708	0.192	0.90	Yes	0.412	0.119	0.54	Yes	0.828	0.104	0.94	Yes	0.822	0.170	1.00	Yes									1.00	**4.45**
		L_{35} - L_{36}	1165.39	-----	95	-992	576	2	-441	246	-78	0	0.815	0.175	1.00	Yes	0.549	0.110	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**3.96**
		L_{36} - L_{37}	1407.47	-----	-436	-1499	410	-7	305	34	13	-18	0.807	0.190	1.00	Yes	0.530	0.112	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**3.45**
		L_{37} - L_{38}	1908.43	-----	-1524	-1665	114	-367	-725	-182	-47	47	0.808	0.191	1.00	Yes	0.537	0.114	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**3.87**
		L_{38} - L_{39}	1855.65	-----	-1659	-1164	-289	-53	287	854	-5	-67	0.796	0.200	1.00	Yes	0.534	0.125	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**3.84**
		L_{39} - L_{40}	1750.77	-----	-1600	-766	-198	-377	357	-121	-61	-6	0.816	0.175	1.00	Yes	0.540	0.105	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.26**
		L_{40} - L_{41}	1417.11	-----	-1215	-85	-343	3	-288	-146	-1	3	0.833	0.165	1.00	Yes	0.561	0.103	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.57**
		L_{41} - L_{42}	1036.53	-----	-1035	113	-140	-129	-257	-292	79	191	0.817	0.181	1.00	Yes	0.536	0.108	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**5.27**
		L_{42} - L_{43}	575.39	-----	-1214	393	-249	139	-163	284	245	115	0.699	0.294	1.00	Yes	0.416	0.188	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**6.05**
		L_{43} - L_{44}	216.52	-----	-2257	717	-2677	898	-899	-263	1144	334	0.263	0.733	1.00	Yes	0.156	0.465	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**21.64**
	Structure 3	L_0 - L_1	66.94	-----	-29	-21	1357	-2378	5	25	-190	-862	0.102	0.893	1.00	Yes	0.062	0.596	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**22.30**
		L_1 - L_2	450.45	-----	385	-802	147	-165	-289	297	36	60	0.689	0.302	1.00	Yes	0.466	0.190	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.80**
		L_2 - L_3	958.96	-----	-12	-627	-26	-135	305	-44	86	128	0.835	0.160	1.00	Yes	0.535	0.097	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**5.10**
		L_3 - L_4	1289.13	-----	18	-1107	41	-295	-175	196	30	121	0.815	0.180	1.00	Yes	0.529	0.111	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.56**
		L_4 - L_5	1750.36	-----	-1062	-786	-270	-127	87	-135	28	14	0.855	0.137	1.00	Yes	0.549	0.080	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**5.03**
		L_5 - L_6	1578.40	-----	-344	-1613	-35	-312	-225	373	-62	137	0.771	0.221	1.00	Yes	0.501	0.134	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**3.82**
		L_6 - L_7	1327.61	-----	-1419	-5	-344	213	-221	176	5	-34	0.781	0.214	1.00	Yes	0.506	0.131	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**3.72**
		L_7 - L_8	1087.28	-----	-548	-342	-78	75	337	329	-30	52	0.858	0.137	1.00	Yes	0.549	0.082	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.12**
		L_8 - L_9	572.92	-----	-855	332	-177	398	-144	-21	71	-86	0.742	0.252	1.00	Yes	0.445	0.166	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.23**
		L_9 - L_{10}	-----	-535.75	-610	332	-444	674	-39	8	-52	-13	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.078	0.91	Yes	0.816	0.178	1.00	Yes									1.00	**4.46**
		L_{10} - L_{11}	-----	-1167.93	-192	194	-300	326	74	-128	10	-295	-----	-----	-----	-----	-----	-----	-----	-----	0.956	0.030	0.99	Yes	0.945	0.052	1.00	Yes									1.00	**4.47**
		L_{11} - L_{12}	-----	-1266.49	-55	534	-122	1405	-84	-98	-133	-198	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.187	1	Yes	0.802	0.186	0.99	Yes									1.00	**2.63**
		L_{12} - L_{13}	-----	-1240.23	557	-34	1429	-98	-130	-138	-213	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.196	1	Yes	0.785	0.189	0.98	Yes									1.00	**2.40**
		L_{13} - L_{14}	-----	-1197.70	92	-36	76	-69	-87	-75	-71	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.975	0.018	1	Yes	0.964	0.014	0.98	Yes									1.00	**3.63**
		L_{14} - L_{15}	-----	-745.20	210	-217	571	146	-33	-143	-32	-88	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.126	1	Yes	0.860	0.126	0.99	Yes									1.00	**3.28**
		L_{15} - L_{16}	-----	-542.10	294	-626	469	154	-173	344	-3	-79	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.161	1	Yes	0.826	0.166	1.00	Yes									1.00	**3.19**
		L_{16} - L_{17}	703.70	-276.48	-636	-498	384	40	-224	43	57	-81	0.810	0.190	1.00	Yes	0.481	0.122	0.61	Yes	0.378	0.205	0.59	Yes	0.374	0.154	0.53	Yes									1.00	**4.22**
		L_{17} - L_{18}	693.65	-----	-618	-709	118	-44	177	113	41	102	0.798	0.200	1.00	Yes	0.462	0.120	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.24**
		L_{18} - L_{19}	451.95	-----	-844	65	47	15	-119	238	52	-73	0.692	0.304	1.00	Yes	0.422	0.204	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**4.44**
		L_{19} - L_{20}	24.71	-----	-97	-7	-2069	1781	-61	-17	1579	430	0.038	0.960	1.00	Yes	0.022	0.579	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----									1.00	**35.41**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

					Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression											
		Vehicle	Pedestrian	Max.	Max.	Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
DL Factor:		1.300	1.300	Tension	Comp.	Start	End	Start	End	Start	End	Start	End				Pass				Pass				Pass				Pass		
LL Factor:		2.167	1.625	(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in	Axial Portion	Moment Portion	Total		Axial Portion	Moment Portion	Total		Axial Portion	Moment Portion	Total		Axial Portion	Moment Portion	Total			
Center Truss - Verticals	Structure 1	$U_0 - L_0$		-----	-328.21	1	19	-122	196	-68	-22	-545	-175	-----	-----	-----	-----	-----	-----	-----	-----	0.733	0.261	1	Yes	0.694	0.251	0.95	Yes	1.00	**2.46**
		$U_1 - L_1$		-----	-334.02	56	-52	-217	224	106	41	-117	-49	-----	-----	-----	-----	-----	-----	-----	-----	0.730	0.114	0.85	Yes	0.707	0.287	1.00	Yes	1.00	**4.35**
		$U_2 - L_2$		137.50	-310.35	121	-136	-214	265	96	9	62	101	0.247	0.368	0.62	Yes	0.136	0.203	0.34	Yes	0.678	0.136	0.82	Yes	0.657	0.339	1.00	Yes	1.00	**5.83**
		$U_3 - L_3$		238.57	-----	201	-235	-350	375	-251	-246	25	284	0.429	0.562	1.00	Yes	0.236	0.309	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.84**
		$U_4 - L_4$		-----	-371.48	54	-55	158	-161	-161	-75	-98	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.097	0.92	Yes	0.786	0.206	1.00	Yes	1.00	**2.90**
		$U_5 - L_5$		-----	-421.71	59	-66	246	-259	-151	-46	-97	-31	-----	-----	-----	-----	-----	-----	-----	-----	0.763	0.105	0.87	Yes	0.728	0.263	1.00	Yes	1.00	**2.31**
		$U_6 - L_6$		-----	-465.40	72	-72	195	-210	-135	0	1129	417	-----	-----	-----	-----	-----	-----	-----	-----	0.705	0.289	1	Yes	0.667	0.184	0.86	Yes	1.00	**1.98**
		$U_7 - L_7$		-----	-434.70	119	-132	302	-327	-131	46	-1	99	-----	-----	-----	-----	-----	-----	-----	-----	0.727	0.125	0.86	Yes	0.671	0.322	1.00	Yes	1.00	**1.83**
		$U_8 - L_8$		-----	-1351.25	-27	28	-11	12	-219	-68	-220	-92	-----	-----	-----	-----	-----	-----	-----	-----	0.976	0.023	1	Yes	0.937	0.005	0.95	Yes	1.00	**2.64**
		$U_9 - L_9$		-----	-654.70	-176	203	-400	462	-245	-171	-316	-253	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.146	0.93	Yes	0.740	0.257	1.00	Yes	1.00	**2.54**
		$U_{10} - L_{10}$		-----	-822.42	-115	115	-361	350	-203	-146	-319	-257	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.115	0.97	Yes	0.811	0.187	1.00	Yes	1.00	**3.74**
		$U_{11} - L_{11}$		-----	-668.64	-118	161	-372	463	-140	-32	-157	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.091	0.9	Yes	0.778	0.215	1.00	Yes	1.00	**3.28**
		$U_{12} - L_{12}$		-----	-534.30	-103	102	-298	306	-125	5	-99	63	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.089	0.87	Yes	0.733	0.262	1.00	Yes	1.00	**2.99**
		$U_{13} - L_{13}$		-----	-369.07	-64	78	-238	257	-106	45	-80	107	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.102	0.85	Yes	0.707	0.293	1.00	Yes	1.00	**2.30**
		$U_{14} - L_{14}$		-----	-399.29	-39	45	-96	111	-149	-49	-189	-37	-----	-----	-----	-----	-----	-----	-----	-----	0.891	0.099	1	Yes	0.845	0.142	0.99	Yes	1.00	**3.48**
		$U_{15} - L_{15}$		54.54	-296.89	-45	44	277	-285	-156	-89	-94	-227	0.098	0.430	0.53	Yes	0.054	0.237	0.30	Yes	0.665	0.180	0.85	Yes	0.628	0.365	1.00	Yes	1.00	**4.67**
		$U_{16} - L_{16}$		-----	-282.10	19	-23	164	-180	-167	-117	1445	8	-----	-----	-----	-----	-----	-----	-----	-----	0.636	0.357	1	Yes	0.597	0.230	0.83	Yes	1.00	**2.85**
		$U_{17} - L_{17}$		-----	-436.83	43	-55	218	-236	-170	-100	40	-87	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.131	0.95	Yes	0.754	0.239	1.00	Yes	1.00	**2.71**
		$U_{18} - L_{18}$		-----	-537.64	116	-121	426	-444	-159	-64	61	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.094	0.89	Yes	0.748	0.251	1.00	Yes	1.00	**3.22**
		$U_{19} - L_{19}$		-----	-651.08	130	-143	483	-509	-69	3	362	148	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.148	0.97	Yes	0.758	0.236	1.00	Yes	1.00	**3.63**
		$U_{20} - L_{20}$		-----	-601.96	164	-209	406	-506	18	2	550	72	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.202	1	Yes	0.701	0.235	0.94	Yes	1.00	**2.72**
	Structure 2	$U_0 - L_0$		-----	-650.13	-94	156	-403	522	-274	-46	-792	-134	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.217	1	Yes	0.697	0.221	0.92	Yes	1.00	**2.45**
		$U_1 - L_1$		-----	-702.73	-86	92	-468	506	59	-71	-863	-279	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.194	1	Yes	0.753	0.215	0.97	Yes	1.00	**3.30**
		$U_2 - L_2$		-----	-589.63	-49	58	-444	471	132	52	-694	-192	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.174	0.97	Yes	0.751	0.241	1.00	Yes	1.00	**3.39**
		$U_3 - L_3$		-----	-487.65	-24	29	-215	237	41	146	-509	-167	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.167	1	Yes	0.765	0.216	0.99	Yes	1.00	**3.16**
		$U_4 - L_4$		-----	-341.13	17	-9	-204	212	-42	101	40	238	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.127	0.91	Yes	0.722	0.271	1.00	Yes	1.00	**3.61**
		$U_5 - L_5$		-----	-336.46	79	-76	-190	219	-97	1	5	245	-----	-----	-----	-----	-----	-----	-----	-----	0.760	0.128	0.89	Yes	0.712	0.279	1.00	Yes	1.00	**4.94**
		$U_6 - L_6$		235.12	-----	140	-147	-257	266	-815	-113	39	308	0.423	0.575	1.00	Yes	0.233	0.316	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.02**
		$U_7 - L_7$		-----	-281.53	79	-93	119	-135	-114	-24	-1184	-119	-----	-----	-----	-----	-----	-----	-----	-----	0.636	0.359	1	Yes	0.596	0.173	0.77	Yes	1.00	**3.35**
		$U_8 - L_8$		-----	-459.33	113	-125	372	-383	-166	-113	-643	-478	-----	-----	-----	-----	-----	-----	-----	-----	0.666	0.224	0.9	Yes	0.662	0.335	1.00	Yes	1.00	**3.38**
		$U_9 - L_9$		-----	-667.60	202	-207	457	-511	-220	-118	1861	313	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.253	1	Yes	0.715	0.217	0.94	Yes	1.00	**3.28**
		$U_{10} - L_{10}$		-----	-788.71	184	-194	567	-591	-162	-77	-43	-97	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.098	0.88	Yes	0.737	0.261	1.00	Yes	1.00	**3.80**
		$U_{11} - L_{11}$		-----	-845.56	196	-196	435	-467	-122	-13	-81	34	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.078	0.93	Yes	0.791	0.206	1.00	Yes	1.00	**2.67**
		$U_{12} - L_{12}$		-----	-889.31	192	-191	514	-492	-59	45	49	119	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.086	0.94	Yes	0.771	0.221	1.00	Yes	1.00	**2.79**
		$U_{13} - L_{13}$		-----	-663.12	264	-271	514	-519	-112	9	923	121	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.259	1	Yes	0.639	0.248	0.89	Yes	1.00	**1.94**
		$U_{14} - L_{14}$		-----	-1341.58	78	-77	81	-86	-101	57	-110	35	-----	-----	-----	-----	-----	-----	-----	-----	0.981	0.012	1	Yes	0.890	0.015	0.91	Yes	1.00	**2.56**
		$U_{15} - L_{15}$		-----	-707.50	-136	151	-659	661	-32	16	-184	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.157	0.95	Yes	0.682	0.316	1.00	Yes	1.00	**3.43**
		$U_{16} - L_{16}$		-----	-736.65	-83	49	-490	451	-134	-53	-292	-207	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.116	0.97	Yes	0.789	0.208	1.00	Yes	1.00	**2.90**
		$U_{17} - L_{17}$		-----	-639.66	-138	125	-539	530	-85	-42	-160	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.092	0.89	Yes	0.744	0.250	1.00	Yes	1.00	**2.48**
		$U_{18} - L_{18}$		-----	-614.51	-130	116	-380	421	-77	-39	-189	-60	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.089	0.91	Yes	0.783	0.215	1.00	Yes	1.00	**2.36**
		$U_{19} - L_{19}$		-----	-490.04	-85	77	-276	277	-90	-43	-131	62	-----	-----	-----	-----	-----	-----	-----	-----	0.737	0.081	0.82	Yes	0.732	0.267	1.00	Yes	1.00	**3.45**
		$U_{20} - L_{20}$		-----	-385.39	-58	61	-209	222	-112	-13	-149	76	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.103	0.9	Yes	0.738	0.253	1.00	Yes	1.00	**3.35**
	Structure 3	$U_{21} - L_{21}$		-----	-315.77	-39	40	-245	256	-140	-67	-132	96	-----	-----	-----	-----	-----	-----	-----	-----	0.713	0.128	0.85	Yes	0.668	0.327	1.00	Yes	1.00	**3.51**
		$U_{22} - L_{22}$		-----	-422.02	-5	6	0	2	-131	-46	-131	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.950	0.044	1	Yes	0.893	0.007	0.91	Yes	1.00	**3.68**
		$U_{23} - L_{23}$		-----	-307.97	24	-25	263	-269	-91	34	-97	-149	-----	-----	-----	-----	-----	-----	-----	-----	0.696	0.145	0.85	Yes	0.652	0.344	1.00	Yes	1.00	**3.76**
		$U_{24} - L_{24}$		-----	-320.07	52	-55	154	-169	-134	-51	1245	160	-----	-----	-----	-----	-----	-----	-----	-----	0.656	0.342	1	Yes	0.613	0.193	0.81	Yes	1.00	**2.54**
		$U_{25} - L_{25}$		-----	-471.50	81	-78	306	-303	-122	32	80	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.709	0.088	0.8	Yes	0.704	0.295	1.00	Yes	1.00	**3.07**
		$U_{26} - L_{26}$		-----	-599.62	135	-134	402	-452	-154	22	-65	12	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.085	0.89	Yes	0.764	0.231	1.00	Yes	1.00	**2.35**
		$U_{27} - L_{27}$		-----	-629.00	157	-156	567	-568	-148	42	-99	54	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.082	0.86	Yes	0.732	0.263	1.00	Yes	1.00	**2.43**
		$U_{28} - L_{28}$		-----	-654.49	137	-119	440	-432	-117	38	1351	260	-----	-----	-----	-----	-----	-----	-----	-----	0.756	0.236	1	Yes	0.701	0.187	0.89	Yes	1.00	**2.19**
		$U_{29} - L_{29}$		-----	-695.98	222	-242	674	-672	-196	-41	110	117	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.142	0.92	Yes	0.671	0.323	1.00	Yes	1.00	**2.90**
		$U_{30} - L_{30}$		-----	-1334.12	-3	-10	19	-46	-132	-19	-124	-4	-----	-----	-----	-----	-----	-----	-----	-----	0.976	0.021	1	Yes	0.885	0.008	0.90	Yes	1.00	**2.61**
		$U_{31} - L_{31}$		-----	-744.49	-187	189	-586	586	-112	-43	-194	-140	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.149	0.98	Yes	0.718	0.281	1.00	Yes	1.00	**2.85**
		$U_{32} - L_{32}$		-----	-903.59	-123	89	-483	447	-182	-107	-291	-194	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.132	1	Yes	0.783	0.207	1.00	Yes	1.00	**3.05**
		$U_{33} - L_{33}$		-----	-858.83	-169	146	-404	431	-138	-77	-156	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.080	0.95	Yes	0.803	0.190	1.00	Yes	1.00	**2.91**
		$U_{34} - L_{34}$		-----	-820.33	-156	162	-508	525	-102	19	146	-159	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.080	0.9	Yes	0.767	0.232	1.00	Yes	1.00	**4.69**
		$U_{35} - L_{35}$		-----	-617.49	-180	186	-408	439	-105	35	2023	582	-----	-----	-----	-----	-----	-----	-----	-----	0.687	0.307	1	Yes	0.662	0.186	0.85	Yes	1.00	**3.54**
		$U_{36} - L_{36}$		-----	-474.61	-103	116	-344	361	-103	47	-51	194	-----	-----	-----	-----	-----	-----	-----	-----	0.688	0.101	0.79	Yes	0.684	0.315	1.00	Yes	1.00	**3.48**
		$U_{37} - L_{37}$		-----	-292.00	-57	68	-57	68	-121	-8	-1250	-49	-----	-----	-----	-----	-----	-----	-----	-----	0.660	0.336	1	Yes	0.618	0.087	0.71	Yes	1.00	**3.40**
		$U_{38} - L_{38}$		219.97	-----	-153	169	257	-257	-117	-29	-936	-609	0.396	0.600	1.00	Yes	0.218	0.330	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.03**
		$U_{39} - L_{39}$		97.02	-275.91	-75	72	115	-143	-151	-57	1465	-19	0.174	0.607	0.79	Yes	0.096	0.334	0.43	Yes	0.623	0.368	1	Yes	0.584	0.183	0.77	Yes	1.00	**3.45**
		$U_{40} - L_{40}$		-----	-329.38	-20	11	232	-232	-129	-59	-57	-128	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.126	0.88	Yes	0.697	0.297	1.00	Yes	1.00	**3.09**
		$U_{41} - L_{41}$		-----	-488.11	27	-34	236	-252	-102	-38	-92	-112	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.102	0.94	Yes	0.765	0.230	1.00	Yes	1.00	**2.94**
		$U_{42} - L_{42}$		-----	-580.17	71	-82	489	-499	-83	-55	57	25	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.080	0.86	Yes	0.739	0.255	1.00	Yes	1.00	**3.30**
		$U_{43} - L_{43}$		-----	-711.63	106	-123	525	-558	-59	-39	465	245	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.147	0.97	Yes	0.763	0.237	1.00	Yes	1.00	**3.58**
		$U_{44} - L_{44}$		-----	-662.84	179	-218	442	-567	-60	-10	664	113	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.201	1	Yes	0.710	0.241	0.96	Yes	1.00	**2.63**
	Structure 4	$U_0 - L_0$		-----	-579.24	-98	161	-366	459	-244	-32	-733	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.229	1	Yes	0.674	0.213	0.89	Yes	1.00	**2.72**
		$U_1 - L_1$		-----	-632.67	-104	111	-418	454	8	-74	-783	-209	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.204	1	Yes	0.736	0.211	0.95	Yes	1.00	**3.65**
		$U_2 - L_2$		-----	-545.62	-81	86	-390	420	93	37	-722	-182	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.189	0.99	Yes	0.759	0.238	1.00	Yes	1.00	**3.80**
		$U_3 - L_3$		-----	-451.37	-27	39	-193	216	6	124	-44	173	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.110	0.96	Yes	0.779	0.219	1.00	Yes	1.00	**3.35**
		$U_4 - L_4$		-----	-331.42	-9	12	-215	229	-74	99	-155	189	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.102	0.85	Yes	0.701	0.293	1.00	Yes	1.00	**3.91**
		$U_5 - L_5$		-----	-304.09	35	-33	-264	277	-115	23	-163	172	-----	-----	-----	-----	-----	-----	-----	-----	0.682	0.129	0.82	Yes	0.643	0.355	1.00	Yes	1.00	**4.64**
		$U_6 - L_6$		-----	-401.46	34	-37	109	-118	-149	-43	-113	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.896	0.087	0.99	Yes	0.849	0.150	1.00	Yes	1.00	**3.55**
		$U_7 - L_7$		-----	-357.21	61	-73	254	-270	-163	-111	-187	-173	-----	-----	-----	-----	-----	-----	-----	-----	0.722	0.147	0.87	Yes	0.684	0.308	1.00	Yes	1.00	**2.37**
		$U_8 - L_8$		-----	-473.22	103	-100	256	-269	-196	-126	1413	401	-----	-----	-----	-----	-----	-----	-----	-----	0.684	0.308	1	Yes	0.649	0.229	0.88	Yes	1.00	**2.47**
		$U_9 - L_9$		-----	-656.97	123	-164	415	-506	-154	-70	59	18	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.098	0.89	Yes	0.765	0.235	1.00	Yes	1.00	**3.09**
		$U_{10} - L_{10}$		-----	-805.39	120	-125	384	-395	-88	12	136	179	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.078	0.92	Yes	0.795	0.205	1.00	Yes	1.00	**3.49**
		$U_{11} - L_{11}$		-----	-641.64	186	-216	419	-487	-39	68	105	180	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.116	0.89	Yes	0.725	0.271	1.00	Yes	1.00	**2.33**
		$U_{12} - L_{12}$		-----	-1199.78	49	-76	101	-170	-99	13	1293	287	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.132	1	Yes	0.832	0.032	0.87	Yes	1.00	**2.39**
		$U_{13} - L_{13}$		-----	-448.21	-106	117	-286	310	-140	-95	-162	-137	-----	-----	-----	-----	-----	-----	-----	-----	0.749	0.148	0.9	Yes	0.691	0.305	1.00	Yes	1.00	**2.26**
		$U_{14} - L_{14}$		-----	-550.48	-63	59	-234	233	-163	-132	-275	-211	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.128	0.97	Yes	0.789	0.205	1.00	Yes	1.00	**2.89**
		$U_{15} - L_{15}$		-----	-432.97	-51	56	-232	242	-141	-63	-199	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.114	0.9	Yes	0.747	0.246	1.00	Yes	1.00	**2.43**
		$U_{16} - L_{16}$		-----	-379.77	-52	52	-146	152	-162	-85	-233	-118	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.119	0.96	Yes	0.804	0.195	1.00	Yes	1.00	**2.96**
		$U_{17} - L_{17}$		231.80	-----	-221	252	361	-375	-110	104	-293	-343	0.417	0.579	1.00	Yes	0.229	0.318	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.67**
		$U_{18} - L_{18}$		90.14	-223.95	-86	94	108	-145	-150	-64	1900	528	0.162	0.736	0.90	Yes	0.089	0.405	0.50	Yes	0.489	0.501	1	Yes	0.474	0.186	0.66	Yes	1.00	**3.47**
		$U_{19} - L_{19}$		-----	-320.89	-55	41	244	-246	-169	-94	147	52	-----	-----	-----	-----	-----	-----	-----	-----	0.701	0.133	0.84	Yes	0.679	0.314	1.00	Yes	1.00	**3.44**
		$U_{20} - L_{20}$		-----	-331.23	37	-37	161	-228	-224	-72	340	109	-----	-----	-----	-----	-----	-----	-----	-----	0.740	0.203	0.95	Yes	0.701	0.291	1.00	Yes	1.00	**2.23**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
Center Truss - Diagonals	Structure 1	$U_0 - L_1$	608.49	-----	-60	51	22	-19	-508	-237	-39	-2	0.798	0.198	1.00	Yes	0.482	0.109	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.02**
		$U_1 - L_2$	428.80	-167.23	-100	26	29	-18	-320	-222	71	62	0.771	0.220	1.00	Yes	0.424	0.121	0.55	Yes	0.384	0.206	0.59	Yes	0.354	0.128	0.49	Yes					1.00	**5.09**
		$U_2 - L_3$	-----	-288.91	-112	17	53	-31	-381	-489	13	182	-----	-----	-----	-----	-----	-----	-----	-----	0.665	0.327	1	Yes	0.611	0.144	0.76	Yes					1.00	**6.71**
		$U_3 - L_4$	-----	-319.60	-75	-108	14	-52	-423	-349	-56	-15	-----	-----	-----	-----	-----	-----	-----	-----	0.731	0.267	1	Yes	0.676	0.138	0.82	Yes					1.00	**5.11**
		$U_4 - L_4$	598.10	-----	-92	38	-13	23	66	15	111	21	0.877	0.120	1.00	Yes	0.482	0.066	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.76**
		$U_5 - L_5$	681.77	-----	-150	273	-35	76	188	79	189	96	0.806	0.190	1.00	Yes	0.443	0.104	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.87**
		$U_7 - L_6$	645.78	-----	-280	260	-78	85	370	-24	297	170	0.763	0.227	1.00	Yes	0.420	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.55**
		$U_6 - L_7$	625.14	-----	-62	344	-8	116	310	215	243	175	0.739	0.252	1.00	Yes	0.406	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.74**
		$U_8 - L_9$	939.47	-----	8	431	54	177	370	319	137	110	0.751	0.239	1.00	Yes	0.465	0.134	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.95**
		$U_9 - L_{10}$	1017.25	-----	-290	319	-97	85	331	292	89	104	0.813	0.184	1.00	Yes	0.504	0.103	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.17**
		$U_{10} - L_{11}$	1027.85	-----	-202	259	-74	71	0	-56	-53	-69	0.868	0.129	1.00	Yes	0.537	0.072	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.21**
		$U_{11} - L_{12}$	845.95	-----	-243	160	-79	29	-262	-279	-192	-163	0.837	0.154	1.00	Yes	0.460	0.085	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.72**
		$U_{12} - L_{13}$	622.37	-----	-192	167	-72	51	-357	-330	-229	-195	0.759	0.237	1.00	Yes	0.477	0.134	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.84**
		$U_{13} - L_{14}$	427.41	-----	-104	25	-27	10	-307	-330	-210	-207	0.769	0.228	1.00	Yes	0.423	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.58**
		$U_{15} - L_{14}$	379.04	-179.27	-148	-37	33	-49	-399	-417	4	-61	0.682	0.309	1.00	Yes	0.375	0.170	0.55	Yes	0.420	0.257	0.68	Yes	0.379	0.189	0.57	Yes					1.00	**7.58**
		$U_{16} - L_{15}$	399.65	-----	-133	91	-5	-11	-352	-351	-34	-75	0.719	0.272	1.00	Yes	0.395	0.150	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.16**
		$U_{17} - L_{16}$	491.90	-----	-144	83	-25	6	-174	-553	-23	-94	0.721	0.275	1.00	Yes	0.397	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.82**
		$U_{18} - L_{17}$	641.04	-----	-342	263	-93	56	-257	-227	4	-43	0.758	0.240	1.00	Yes	0.417	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.44**
		$U_{19} - L_{18}$	694.26	-----	-350	257	-100	64	-366	-140	38	0	0.752	0.239	1.00	Yes	0.414	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.54**
		$U_{20} - L_{19}$	677.92	-----	-361	310	-126	104	-455	-79	-1	28	0.734	0.260	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.39**
	Structure 2	$U_0 - L_1$	752.70	-----	-379	362	-47	56	-492	-160	-126	61	0.745	0.250	1.00	Yes	0.410	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.29**
		$U_1 - L_2$	738.90	-----	-371	286	-66	41	-630	-256	60	20	0.731	0.266	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.34**
		$U_2 - L_3$	607.40	-----	-336	255	-38	27	-468	-182	-63	-186	0.718	0.275	1.00	Yes	0.395	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.32**
		$U_3 - L_4$	551.90	-----	-180	118	-12	-1	-430	-200	-237	-222	0.736	0.254	1.00	Yes	0.405	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.43**
		$U_4 - L_5$	388.57	-----	-131	87	18	-24	-427	-396	-143	-89	0.699	0.291	1.00	Yes	0.384	0.160	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.04**
		$U_5 - L_6$	362.55	-196.44	-128	62	61	-59	-607	-460	-102	-21	0.652	0.340	1.00	Yes	0.359	0.187	0.55	Yes	0.464	0.349	0.82	Yes	0.416	0.164	0.58	Yes					1.00	**5.77**
		$U_6 - L_7$	-----	-305.26	-59	-39	37	-83	-320	-747	-496	-336	-----	-----	-----	-----	-----	-----	-----	-----	0.654	0.339	1	Yes	0.585	0.094	0.68	Yes					1.00	**3.84**
		$U_8 - L_7$	583.15	-----	-217	108	-58	47	-286	-264	-26	-113	0.744	0.253	1.00	Yes	0.468	0.142	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.84**
		$U_8 - L_9$	694.14	-----	-336	236	-125	89	-284	-433	17	-69	0.752	0.243	1.00	Yes	0.414	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.32**
		$U_{10} - L_9$	774.42	-----	-322	198	-115	96	-35	-562	46	-19	0.766	0.234	1.00	Yes	0.421	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.94**
		$U_{11} - L_{10}$	900.43	-----	-376	306	-132	123	-44	-86	145	35	0.820	0.179	1.00	Yes	0.451	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.40**
		$U_{12} - L_{11}$	884.75	-----	-350	353	-141	150	256	163	215	115	0.806	0.185	1.00	Yes	0.443	0.102	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.45**
		$U_{13} - L_{12}$	750.28	-----	-426	389	-180	174	347	202	350	182	0.742	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.20**
		$U_{14} - L_{13}$	727.54	-----	-216	452	-29	193	383	-188	471	163	0.720	0.280	1.00	Yes	0.396	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.74**
		$U_{14} - L_{15}$	610.33	-----	-144	409	56	76	249	165	30	-20	0.722	0.277	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.57**
		$U_{15} - L_{16}$	631.32	-----	-379	352	-67	72	195	173	9	34	0.746	0.250	1.00	Yes	0.411	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.75**
		$U_{16} - L_{17}$	726.26	-----	-324	383	-52	105	99	77	-6	14	0.787	0.212	1.00	Yes	0.433	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.65**
		$U_{17} - L_{18}$	689.13	-----	-309	305	-53	104	-1	-5	-27	6	0.815	0.180	1.00	Yes	0.448	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.56**
		$U_{18} - L_{19}$	665.90	-----	-284	262	-18	106	-249	-231	-5	21	0.787	0.206	1.00	Yes	0.433	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.06**
		$U_{19} - L_{20}$	578.95	-----	-212	183	-15	68	-344	-307	0	58	0.738	0.260	1.00	Yes	0.406	0.147	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.11**
		$U_{20} - L_{21}$	419.10	-----	-120	106	-16	35	-319	-262	18	31	0.754	0.245	1.00	Yes	0.415	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.27**
		$U_{21} - L_{22}$	360.48	-----	-145	6	-9	-35	-455	-407	-560	-380	0.648	0.347	1.00	Yes	0.357	0.191	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.85**
		$U_{23} - L_{22}$	403.82	-----	-147	27	-22	-32	-165	-258	-241	-274	0.726	0.268	1.00	Yes	0.399	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.63**
		$U_{24} - L_{23}$	428.67	-----	-123	104	-8	26	-168	-204	229	142	0.771	0.223	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.57**
		$U_{25} - L_{24}$	550.85	-----	-200	146	-14	57	-47	-563	251	163	0.702	0.294	1.00	Yes	0.386	0.168	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.48**
		$U_{26} - L_{25}$	661.50	-----	-290	264	-29	102	-13	-92	287	197	0.782	0.216	1.00	Yes	0.430	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.56**
		$U_{27} - L_{26}$	659.91	-----	-292	286	-64	108	230	102	264	159	0.780	0.213	1.00	Yes	0.429	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.32**
		$U_{28} - L_{27}$	700.97	-----	-316	370	-79	125	272	177	262	179	0.759	0.234	1.00	Yes	0.418	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.41**
		$U_{29} - L_{28}$	613.94	-----	-360	330	-116	114	333	-81	303	143	0.726	0.264	1.00	Yes	0.399	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.15**
		$U_{30} - L_{29}$	597.77	-----	-157	380	8	134	264	152	402	111	0.707	0.288	1.00	Yes	0.389	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.78**
		$U_{30} - L_{31}$	732.24	-----	-196	492	18	130	279	165	123	34	0.724	0.270	1.00	Yes	0.398	0.148	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.43**
		$U_{31} - L_{32}$	771.98	-----	-450	404	-122	124	180	145	53	61	0.764	0.236	1.00	Yes	0.420	0.130	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.72**
		$U_{32} - L_{33}$	914.56	-----	-358	363	-81	141	28	32	9	28	0.833	0.158	1.00	Yes	0.458	0.087	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.88**
		$U_{33} - L_{34}$	875.06	-----	-364	269	-65	149	-344	-176	7	39	0.797	0.202	1.00	Yes	0.438	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.90**
		$U_{34} - L_{35}$	824.76	-----	-273	242	-101	90	-369	259	-193	-171	0.816	0.182	1.00	Yes	0.449	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.18**
		$U_{35} - L_{36}$	675.33	-----	-332	234	-117	88	-545	-440	-245	-186	0.731	0.259	1.00	Yes	0.402	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.53**
		$U_{36} - L_{37}$	520.90	-----	-190	105	-59	55	-332	-790	-215	-206	0.664	0.331	1.00	Yes	0.418	0.190	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.27**
		$U_{38} - L_{37}$	-----	-369.46	-104	-35	41	-99	-318	-294	-276	-297	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.196	1	Yes	0.708	0.118	0.83	Yes					1.00	**5.88**
		$U_{39} - L_{38}$	387.90	-224.74	-126	63	69	-65	-255	-477	78	8	0.698	0.299	1.00	Yes	0.384	0.164	0.55	Yes	0.535	0.231	0.77	Yes	0.476	0.161	0.64	Yes					1.00	**5.53**
		$U_{40} - L_{39}$	366.67	-----	-126	69	19	-27	-50	-594	27	-13	0.659	0.333	1.00	Yes	0.363	0.183	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.28**
		$U_{41} - L_{40}$	588.60	-----	-191	141	-12	-5	-171	-188	27	-5	0.785	0.214	1.00	Yes	0.432	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.26**
		$U_{42} - L_{41}$	654.43	-----	-348	271	-51	30	-123	-151	-5	2	0.774	0.224	1.00	Yes	0.426	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.33**
		$U_{43} - L_{42}$	776.39	-----	-391	311	-71	44	-326	-88	-18	-44	0.768	0.230	1.00	Yes	0.422	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.65**
		$U_{44} - L_{43}$	769.86	-----	-376	367	-124	105	-403	-19	34	-10	0.762	0.235	1.00	Yes	0.419	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.48**
	Structure 3	$U_0 - L_1$	659.18	-----	-372	311	-64	67	-572	-185	-137	43	0.714	0.284	1.00	Yes	0.393	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.56**
		$U_1 - L_2$	661.73	-----	-331	234	-85	52	-686	-273	35	10	0.717	0.282	1.00	Yes	0.394	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.68**
		$U_2 - L_3$	630.62	-----	-335	252	-66	38	-280	-339	-75	-172	0.746	0.251	1.00	Yes	0.410	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.16**
		$U_3 - L_4$	507.09	-----	-151	104	-15	3	-418	-398	-217	-204	0.744	0.251	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.63**
		$U_4 - L_5$	381.77	-----	-127	91	-6	-8	-508	-401	-194	-132	0.687	0.309	1.00	Yes	0.378	0.170	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.95**
		$U_5 - L_6$	323.77	-152.08	-147	-66	-5	-79	-743	-600	-783	-554	0.582	0.415	1.00	Yes	0.320	0.228	0.55	Yes	0.356	0.415	0.78	Yes	0.322	0.188	0.51	Yes					1.00	**6.49**
		$U_7 - L_6$	435.51	-----	-105	23	-23	6	-130	-273	-27	-144	0.783	0.213	1.00	Yes	0.431	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.77**
		$U_8 - L_7$	641.42	-----	-196	171	-66	46	-164	-230	-29	-86	0.782	0.216	1.00	Yes	0.492	0.121	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.02**
		$U_8 - L_9$	818.98	-----	-252	126	-77	27	-12	-462	57	-39	0.810	0.186	1.00	Yes	0.446	0.102	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.27**
		$U_{10} - L_9$	1020.44	-----	-215	247	-74	68	151	43	137	57	0.862	0.134	1.00	Yes	0.534	0.075	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.82**
		$U_{11} - L_{10}$	1000.43	-----	-295	311	-101	87	459	346	307	197	0.800	0.197	1.00	Yes	0.495	0.111	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.63**
		$U_{12} - L_{11}$	939.20	-----	-15	414	-16	142	450	371	293	217	0.751	0.242	1.00	Yes	0.465	0.136	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.55**
		$U_{12} - L_{13}$	626.72	-----	-46	355	-4	107	257	195	114	92	0.741	0.249	1.00	Yes	0.408	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.37**
		$U_{13} - L_{14}$	661.89	-----	-283	290	-71	76	235	211	91	114	0.783	0.208	1.00	Yes	0.430	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.28**
		$U_{14} - L_{15}$	700.57	-----	-151	277	-31	69	45	5	37	15	0.828	0.166	1.00	Yes	0.456	0.091	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.14**
		$U_{15} - L_{16}$	597.18	-----	-93	39	-12	23	-91	-30	-50	-23	0.876	0.116	1.00	Yes	0.482	0.064	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**2.89**
		$U_{17} - L_{16}$	-----	-376.72	-58	-71	9	-96	-92	-262	-235	214	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.129	1	Yes	0.797	0.123	0.93	Yes					1.00	**4.98**
		$U_{18} - L_{17}$	-----	-307.73	-124	20	61	-35	-295	-433	131	243	-----	-----	-----	-----	-----	-----	-----	-----	0.708	0.286	1	Yes	0.651	0.158	0.81	Yes					1.00	**7.05**
		$U_{19} - L_{18}$	415.01	-118.51	-89	0	27	-21	-233	-460	38	-1	0.746	0.247	1.00	Yes	0.411	0.136	0.55	Yes	0.272	0.208	0.48	Yes	0.251	0.113	0.37	Yes					1.00	**3.81**
		$U_{20} - L_{19}$	613.33	-----	-78	63	-20	-1	-376	-194	31	-18	0.805	0.186	1.00	Yes	0.486	0.102	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.98**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

| | | | Vehicle | Pedestrian | Axial Force | | ZZ Axis Bending | | | | YY Axis Bending | | | | Tension | | | | | | | | Compression | | | | | | | |

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
South Truss - Lower Chord	Structure 1	L_0 - L_1	260.59	-167.38	12	-104	518	-901	159	584	-409	-1503	0.399	0.593	1.00	Yes	0.235	0.353	0.59	Yes	0.304	0.478	0.79	Yes	0.301	0.271	0.58	Yes	1.00	**14.89**
		L_1 - L_2	380.70	-----	87	-802	-21	65	-823	469	398	-181	0.583	0.417	1.00	Yes	0.355	0.272	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.98**
		L_2 - L_3	637.47	-----	-729	-507	-10	109	207	-510	-194	133	0.733	0.258	1.00	Yes	0.424	0.153	0.58	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.60**
		L_3 - L_4	665.81	-402.98	-537	-350	49	441	-638	287	346	-280	0.766	0.232	1.00	Yes	0.455	0.146	0.61	Yes	0.551	0.147	0.7	Yes	0.545	0.130	0.68	Yes	1.00	**4.34**
		L_4 - L_5	-----	-570.39	-338	329	109	466	220	48	-86	218	-----	-----	-----	-----	-----	-----	-----	-----	0.877	0.114	1	Yes	0.869	0.123	1.00	Yes	1.00	**2.38**
		L_5 - L_6	-----	-751.36	-73	358	128	591	77	-192	189	-208	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.123	1	Yes	0.867	0.131	1.00	Yes	1.00	**2.27**
		L_6 - L_7	-----	-1194.21	-72	101	72	55	-129	286	-114	222	-----	-----	-----	-----	-----	-----	-----	-----	0.972	0.025	1	Yes	0.961	0.016	0.98	Yes	1.00	**3.35**
		L_7 - L_8	-----	-1230.28	-53	780	-79	1320	298	284	369	466	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.202	1	Yes	0.779	0.175	0.96	Yes	1.00	**2.26**
		L_8 - L_9	-----	-1256.12	705	-34	1231	-65	244	353	487	292	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.194	1	Yes	0.796	0.163	0.96	Yes	1.00	**2.09**
		L_9 - L_{10}	-----	-1089.24	345	-234	445	-363	456	-184	112	-33	-----	-----	-----	-----	-----	-----	-----	-----	0.886	0.105	1	Yes	0.877	0.070	0.95	Yes	1.00	**3.92**
		L_{10} - L_{11}	-----	-507.90	184	-288	499	-177	-262	151	-329	158	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.215	1	Yes	0.774	0.132	0.91	Yes	1.00	**4.93**
		L_{11} - L_{12}	515.29	-----	326	-848	345	-238	-562	500	132	-87	0.667	0.323	1.00	Yes	0.400	0.208	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		L_{12} - L_{13}	1065.94	-----	-430	-550	47	-161	-48	-510	-158	122	0.841	0.157	1.00	Yes	0.538	0.096	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.24**
		L_{13} - L_{14}	1320.82	-----	-105	-1234	181	-527	-546	453	147	18	0.777	0.216	1.00	Yes	0.503	0.133	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.16**
		L_{14} - L_{15}	1610.80	-----	-1490	-408	-567	-152	454	18	-148	165	0.787	0.211	1.00	Yes	0.511	0.129	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.84**
		L_{15} - L_{16}	1728.16	-----	-924	-1038	-303	-362	-1	335	117	-133	0.844	0.149	1.00	Yes	0.542	0.087	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.33**
		L_{16} - L_{17}	1292.00	-----	-1078	118	-415	55	234	-140	-123	175	0.817	0.179	1.00	Yes	0.530	0.110	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.03**
		L_{17} - L_{18}	1011.92	-----	-383	-43	-233	34	-116	-313	105	-104	0.881	0.114	1.00	Yes	0.564	0.069	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.63**
		L_{18} - L_{19}	517.44	-----	-481	233	-367	275	-155	280	-261	212	0.792	0.202	1.00	Yes	0.536	0.128	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		L_{19} - L_{20}	463.71	-214.99	-375	88	-367	216	375	84	234	52	0.784	0.209	1.00	Yes	0.484	0.121	0.61	Yes	0.431	0.135	0.57	Yes	0.428	0.122	0.55	Yes	1.00	**5.91**
	Structure 2	L_0 - L_1	-----	-438.73	245	-607	523	-1743	148	514	-285	-989	-----	-----	-----	-----	-----	-----	-----	-----	0.631	0.369	1	Yes	0.627	0.355	0.99	Yes	1.00	**12.06**
		L_1 - L_2	629.72	-----	309	-756	206	-303	424	-459	110	141	0.765	0.229	1.00	Yes	0.455	0.145	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.07**
		L_2 - L_3	1040.24	-----	93	-970	-77	-213	293	-123	-80	143	0.820	0.171	1.00	Yes	0.538	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		L_3 - L_4	1352.99	-----	-7	-1388	-27	-450	-399	487	190	-33	0.795	0.201	1.00	Yes	0.535	0.126	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.69**
		L_4 - L_5	1808.92	-----	-1092	-1237	-416	-346	506	83	-96	157	0.843	0.151	1.00	Yes	0.558	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		L_5 - L_6	1885.15	-----	-725	-1747	-204	-420	-140	470	197	-96	0.809	0.184	1.00	Yes	0.543	0.113	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.26**
		L_6 - L_7	1894.85	-----	-1809	-1374	-526	-174	360	-560	-160	221	0.802	0.194	1.00	Yes	0.533	0.115	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.95**
		L_7 - L_8	1390.54	-----	-1341	-409	-289	415	-599	336	226	-138	0.797	0.197	1.00	Yes	0.524	0.118	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.80**
		L_8 - L_9	1151.51	-----	-1107	340	-55	616	392	-145	-83	180	0.805	0.186	1.00	Yes	0.543	0.117	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		L_9 - L_{10}	651.49	-794.56	-1022	227	-115	852	-132	-83	136	-176	0.582	0.185	0.77	Yes	0.339	0.115	0.46	Yes	0.840	0.091	0.94	Yes	0.834	0.163	1.00	Yes	1.00	**3.64**
		L_{10} - L_{11}	-----	-761.74	-569	524	27	565	-12	-34	-88	94	-----	-----	-----	-----	-----	-----	-----	-----	0.901	0.067	0.97	Yes	0.895	0.100	1.00	Yes	1.00	**2.22**
		L_{11} - L_{12}	-----	-1030.63	-372	660	-70	1106	-171	-584	89	-336	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.146	1	Yes	0.845	0.151	1.00	Yes	1.00	**2.31**
		L_{12} - L_{13}	-----	-1482.41	-410	-354	-133	-694	-511	-81	-205	56	-----	-----	-----	-----	-----	-----	-----	-----	0.902	0.092	1	Yes	0.894	0.070	0.97	Yes	1.00	**2.73**
		L_{13} - L_{14}	-----	-1511.64	-668	1927	-948	2725	114	231	188	373	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.180	0.95	Yes	0.761	0.238	1.00	Yes	1.00	**1.92**
		L_{14} - L_{15}	-----	-1512.75	1628	-558	2680	-894	321	289	378	221	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.178	0.95	Yes	0.761	0.234	1.00	Yes	1.00	**1.70**
		L_{15} - L_{16}	-----	-1534.75	-332	-89	-690	-246	234	-278	126	28	-----	-----	-----	-----	-----	-----	-----	-----	0.926	0.073	1	Yes	0.918	0.069	0.99	Yes	1.00	**2.67**
		L_{16} - L_{17}	-----	-1161.21	723	-148	1210	-354	-490	-29	-333	-591	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.138	1	Yes	0.846	0.149	1.00	Yes	1.00	**2.83**
		L_{17} - L_{18}	-----	-847.55	450	-186	649	-250	122	-177	-432	278	-----	-----	-----	-----	-----	-----	-----	-----	0.896	0.078	0.98	Yes	0.890	0.104	1.00	Yes	1.00	**3.26**
		L_{18} - L_{19}	-----	-651.08	299	-210	685	125	-205	151	-240	37	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.107	0.99	Yes	0.868	0.132	1.00	Yes	1.00	**3.64**
		L_{19} - L_{20}	531.19	-579.26	283	-1146	503	283	-549	661	178	-217	0.602	0.322	0.93	Yes	0.356	0.202	0.56	Yes	0.777	0.113	0.9	Yes	0.772	0.221	1.00	Yes	1.00	**4.37**
		L_{20} - L_{21}	965.47	-----	-807	-997	437	73	7	-715	-189	42	0.770	0.222	1.00	Yes	0.505	0.136	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.18**
		L_{21} - L_{22}	948.96	-----	-594	-1304	182	16	-487	451	144	-190	0.757	0.243	1.00	Yes	0.506	0.153	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.52**
		L_{22} - L_{23}	911.03	-----	-1491	-380	-182	158	445	-51	-35	213	0.726	0.266	1.00	Yes	0.486	0.167	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.95**
		L_{23} - L_{24}	1033.23	-774.53	-876	-387	104	566	-140	441	208	-318	0.824	0.175	1.00	Yes	0.540	0.106	0.65	Yes	0.732	0.115	0.85	Yes	0.727	0.128	0.86	Yes	1.00	**6.43**
		L_{24} - L_{25}	-----	-680.68	-445	179	211	422	-88	82	-153	108	-----	-----	-----	-----	-----	-----	-----	-----	0.913	0.064	0.98	Yes	0.907	0.086	1.00	Yes	1.00	**4.42**
		L_{25} - L_{26}	-----	-651.09	-268	188	27	641	-15	-128	83	-340	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.111	0.99	Yes	0.868	0.124	1.00	Yes	1.00	**3.06**
		L_{26} - L_{27}	-----	-839.62	-334	439	-211	738	-102	37	126	64	-----	-----	-----	-----	-----	-----	-----	-----	0.888	0.087	0.98	Yes	0.882	0.118	1.00	Yes	1.00	**2.90**
		L_{27} - L_{28}	-----	-1119.59	-218	747	-212	1439	58	-202	167	-47	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.141	0.97	Yes	0.815	0.178	1.00	Yes	1.00	**2.41**
		L_{28} - L_{29}	-----	-1507.69	-250	-524	52	-967	-147	28	17	156	-----	-----	-----	-----	-----	-----	-----	-----	0.909	0.087	1	Yes	0.902	0.096	1.00	Yes	1.00	**2.90**
		L_{29} - L_{30}	-----	-1493.87	-731	1911	-1081	2769	114	95	220	362	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.176	0.94	Yes	0.752	0.242	1.00	Yes	1.00	**2.05**
		L_{30} - L_{31}	-----	-1530.63	1747	-548	2536	-875	511	408	241	59	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.180	0.96	Yes	0.770	0.221	1.00	Yes	1.00	**1.31**
		L_{31} - L_{32}	-----	-1510.26	-174	-355	-622	-328	351	-262	-329	-149	-----	-----	-----	-----	-----	-----	-----	-----	0.911	0.082	1	Yes	0.903	0.062	0.97	Yes	1.00	**2.24**
		L_{32} - L_{33}	-----	-1038.09	581	-338	1028	-319	-423	50	80	-5	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.113	0.98	Yes	0.851	0.140	1.00	Yes	1.00	**1.99**
		L_{33} - L_{34}	-----	-760.41	420	-471	586	8	137	-35	90	-135	-----	-----	-----	-----	-----	-----	-----	-----	0.899	0.073	0.98	Yes	0.893	0.102	1.00	Yes	1.00	**2.61**
		L_{34} - L_{35}	651.09	-809.41	-8	-636	876	-79	-212	343	-208	82	0.581	0.181	0.77	Yes	0.338	0.112	0.46	Yes	0.856	0.085	0.95	Yes	0.850	0.140	1.00	Yes	1.00	**4.75**
		L_{35} - L_{36}	1089.08	-----	255	-1243	631	-96	-516	737	160	-136	0.762	0.237	1.00	Yes	0.513	0.150	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.19**
		L_{36} - L_{37}	1383.73	-----	-530	-1482	327	-241	506	-492	-199	147	0.793	0.205	1.00	Yes	0.521	0.122	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.14**
		L_{37} - L_{38}	1814.80	-----	-1603	-1872	-296	-617	-1012	530	117	-181	0.768	0.227	1.00	Yes	0.510	0.137	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.36**
		L_{38} - L_{39}	1839.11	-----	-1857	-698	-566	-213	634	139	-106	174	0.789	0.204	1.00	Yes	0.530	0.126	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		L_{39} - L_{40}	1809.02	-----	-1380	-946	-404	-297	129	320	134	-117	0.843	0.152	1.00	Yes	0.558	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.54**
		L_{40} - L_{41}	1360.87	-----	-1342	69	-424	28	193	-158	-30	298	0.807	0.184	1.00	Yes	0.545	0.118	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.37**
		L_{41} - L_{42}	1023.20	-----	-1000	203	-230	51	-203	-72	308	136	0.817	0.181	1.00	Yes	0.537	0.105	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.77**
		L_{42} - L_{43}	589.83	-----	-811	316	-244	205	-678	35	162	358	0.716	0.276	1.00	Yes	0.426	0.173	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.21**
		L_{43} - L_{44}	-----	-454.02	-1106	288	-526	167	-496	-145	1122	327	-----	-----	-----	-----	-----	-----	-----	-----	0.653	0.338	1	Yes	0.649	0.225	0.88	Yes	1.00	**19.38**
	Structure 3	L_0 - L_1	-----	-446.32	97	-314	305	-635	45	206	-42	-188	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.145	0.96	Yes	0.804	0.191	1.00	Yes	1.00	**4.66**
		L_1 - L_2	528.63	-----	219	-465	301	-372	217	-205	244	22	0.809	0.190	1.00	Yes	0.547	0.120	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.99**
		L_2 - L_3	1016.90	-----	-161	-370	53	-226	-283	171	-16	163	0.885	0.107	1.00	Yes	0.567	0.065	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.06**
		L_3 - L_4	1146.27	-----	118	-1326	50	-430	-341	824	141	61	0.725	0.268	1.00	Yes	0.470	0.166	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.33**
		L_4 - L_5	1630.06	-----	-1275	-922	-377	-263	218	-625	-28	228	0.796	0.198	1.00	Yes	0.511	0.117	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.22**
		L_5 - L_6	1603.71	-----	-566	-1416	-141	-457	-431	626	255	-31	0.784	0.215	1.00	Yes	0.509	0.131	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.80**
		L_6 - L_7	1298.35	-----	-1386	158	-489	236	433	-106	-51	263	0.764	0.227	1.00	Yes	0.495	0.139	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		L_7 - L_8	1110.63	-----	-539	-181	-88	187	-144	146	145	-198	0.876	0.119	1.00	Yes	0.561	0.071	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.27**
		L_8 - L_9	554.39	-----	-859	414	-144	441	280	-278	-128	194	0.718	0.276	1.00	Yes	0.431	0.180	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.39**
		L_9 - L_{10}	-----	-563.37	-305	210	-62	519	-138	-406	199	-87	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.101	0.97	Yes	0.858	0.137	1.00	Yes	1.00	**4.45**
		L_{10} - L_{11}	-----	-1174.42	-291	316	-230	319	-313	140	-92	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.956	0.028	0.99	Yes	0.945	0.050	1.00	Yes	1.00	**4.83**
		L_{11} - L_{12}	-----	-1271.94	-64	831	-98	1356	246	180	129	68	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.183	1	Yes	0.806	0.180	0.99	Yes	1.00	**2.61**
		L_{12} - L_{13}	-----	-1145.14	752	-32	1301	-65	30	211	-21	27	-----	-----	-----	-----	-----	-----	-----	-----	0.735	0.262	1	Yes	0.725	0.172	0.90	Yes	1.00	**1.94**
		L_{13} - L_{14}	-----	-1153.92	188	-108	206	-243	404	-19	-53	36	-----	-----	-----	-----	-----	-----	-----	-----	0.939	0.060	1	Yes	0.929	0.038	0.97	Yes	1.00	**4.00**
		L_{14} - L_{15}	-----	-715.28	156	-275	565	103	-179	-576	-256	76	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.145	1	Yes	0.839	0.128	0.97	Yes	1.00	**2.97**
		L_{15} - L_{16}	-----	-562.68	175	-513	483	147	-660	534	260	-224	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.135	1	Yes	0.857	0.136	1.00	Yes	1.00	**3.58**
		L_{16} - L_{17}	713.96	-----	-565	-527	437	-29	242	162	-178	188	0.821	0.175	1.00	Yes	0.488	0.112	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.00**
		L_{17} - L_{18}	709.94	-----	-658	-569	111	-68	11	-56	111	-117	0.817	0.178	1.00	Yes	0.473	0.107	0.58	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.55**
		L_{18} - L_{19}	465.68	-----	-725	3	30	-32	-10	290	-93	212	0.713	0.280	1.00	Yes	0.435	0.186	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.78**
		L_{19} - L_{20}	438.83	-117.62	-162	-125	-212	-2	-29	-8	1187	322	0.672	0.319	1.00	Yes	0.395	0.187	0.59	Yes	0.214	0.351	0.57	Yes	0.212	0.064	0.28	Yes	1.00	**31.67**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression													
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture					Buckle				Yield									
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Controlling Bi-Axial Moment & Axial Value	Rating
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Verticals	Structure 1	U_0 - L_0	-----	-299.00	-8	42	-57	152	232	74	-779	-250	-----	-----	-----	-----	-----	-----	-----	-----	0.668	0.324	1	Yes	0.633	0.194	0.83	Yes	1.00	**1.54**
		U_1 - L_1	-----	-306.49	43	-35	-235	227	610	209	-942	-389	-----	-----	-----	-----	-----	-----	-----	-----	0.670	0.327	1	Yes	0.649	0.301	0.95	Yes	1.00	**3.18**
		U_2 - L_2	68.52	-133.38	66	-71	-28	59	747	242	-2696	-814	0.123	0.871	1.00	Yes	0.068	0.479	0.55	Yes	0.291	0.668	0.96	Yes	0.282	0.091	0.38	Yes	1.00	**2.39**
		U_3 - L_3	236.09	-----	241	-251	33	-23	-879	-746	-382	-65	0.425	0.575	1.00	Yes	0.234	0.316	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.12**
		U_4 - L_4	-----	-136.62	84	-86	119	-121	1110	564	-2400	-759	-----	-----	-----	-----	-----	-----	-----	-----	0.300	0.696	1	Yes	0.289	0.155	0.45	Yes	1.00	**3.74**
		U_5 - L_5	-----	-361.78	79	-85	180	-198	1101	629	155	213	-----	-----	-----	-----	-----	-----	-----	-----	0.655	0.339	1	Yes	0.624	0.201	0.83	Yes	1.00	**2.66**
		U_6 - L_6	-----	-422.56	78	-66	170	-179	1454	724	-1326	-313	-----	-----	-----	-----	-----	-----	-----	-----	0.640	0.350	1	Yes	0.606	0.156	0.77	Yes	1.00	**2.39**
		U_7 - L_7	-----	-325.54	119	-134	231	-254	948	245	494	100	-----	-----	-----	-----	-----	-----	-----	-----	0.544	0.449	1	Yes	0.502	0.250	0.76	Yes	1.00	**1.54**
		U_8 - L_8	-----	-1248.41	-123	140	-119	136	968	159	-331	-286	-----	-----	-----	-----	-----	-----	-----	-----	0.905	0.090	1	Yes	0.869	0.026	0.90	Yes	1.00	**3.32**
		U_9 - L_9	-----	-658.74	-230	262	-406	450	586	221	-444	-122	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.175	0.97	Yes	0.744	0.250	1.00	Yes	1.00	**2.06**
		U_{10} - L_{10}	-----	-782.49	-158	155	-347	361	598	275	-742	-273	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.183	1	Yes	0.772	0.187	0.96	Yes	1.00	**3.04**
		U_{11} - L_{11}	-----	-660.47	-166	217	-380	479	622	359	-720	-115	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.191	0.99	Yes	0.769	0.222	1.00	Yes	1.00	**2.90**
		U_{12} - L_{12}	-----	-422.82	-137	138	-210	226	664	370	-1956	-530	-----	-----	-----	-----	-----	-----	-----	-----	0.611	0.382	1	Yes	0.580	0.193	0.78	Yes	1.00	**1.83**
		U_{13} - L_{13}	-----	-312.67	-85	101	-171	197	556	247	-116	153	-----	-----	-----	-----	-----	-----	-----	-----	0.632	0.367	1	Yes	0.599	0.225	0.83	Yes	1.00	**3.18**
		U_{14} - L_{14}	-----	-133.99	-41	48	-50	59	637	193	-2635	-446	-----	-----	-----	-----	-----	-----	-----	-----	0.299	0.692	1	Yes	0.284	0.075	0.36	Yes	1.00	**3.46**
		U_{15} - L_{15}	-----	-256.53	-31	27	176	-201	456	96	-1309	-416	-----	-----	-----	-----	-----	-----	-----	-----	0.575	0.418	1	Yes	0.543	0.257	0.81	Yes	1.00	**5.40**
		U_{16} - L_{16}	-----	-320.12	37	-42	240	-251	485	106	-677	-202	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.276	1	Yes	0.677	0.321	1.00	Yes	1.00	**4.28**
		U_{17} - L_{17}	-----	-418.20	77	-90	198	-219	505	197	-102	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.211	1	Yes	0.721	0.222	0.95	Yes	1.00	**2.66**
		U_{18} - L_{18}	-----	-460.66	179	-185	373	-386	684	174	465	134	-----	-----	-----	-----	-----	-----	-----	-----	0.675	0.323	1	Yes	0.641	0.219	0.86	Yes	1.00	**2.61**
		U_{19} - L_{19}	-----	-563.10	186	-200	403	-428	596	119	569	95	-----	-----	-----	-----	-----	-----	-----	-----	0.703	0.289	1	Yes	0.655	0.198	0.86	Yes	1.00	**3.04**
		U_{20} - L_{20}	-----	-447.87	236	-283	348	-407	437	57	386	51	-----	-----	-----	-----	-----	-----	-----	-----	0.654	0.343	1	Yes	0.573	0.215	0.79	Yes	1.00	**1.52**
	Structure 2	U_0 - L_0	-----	-641.65	-155	257	-256	443	61	10	-859	-146	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.228	1	Yes	0.688	0.188	0.88	Yes	1.00	**1.62**
		U_1 - L_1	-----	-709.32	-188	196	-544	547	619	151	-423	-106	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.145	0.96	Yes	0.760	0.232	1.00	Yes	1.00	**2.71**
		U_2 - L_2	-----	-594.71	-136	151	-431	456	619	266	-382	161	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.175	0.98	Yes	0.758	0.233	1.00	Yes	1.00	**2.47**
		U_3 - L_3	-----	-459.25	-66	76	-207	227	546	255	-229	136	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.211	1	Yes	0.720	0.207	0.93	Yes	1.00	**2.08**
		U_4 - L_4	-----	-318.09	-3	14	-182	196	574	224	-613	9	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.272	1	Yes	0.673	0.250	0.93	Yes	1.00	**2.79**
		U_5 - L_5	-----	-255.60	89	-84	-135	168	579	168	-1149	-161	-----	-----	-----	-----	-----	-----	-----	-----	0.577	0.418	1	Yes	0.541	0.214	0.76	Yes	1.00	**4.30**
		U_6 - L_6	196.86	-----	119	-132	-53	58	598	162	-1634	-366	0.354	0.641	1.00	Yes	0.195	0.353	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.98**
		U_7 - L_7	-----	-185.35	97	-113	117	-133	659	147	-2461	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.419	0.574	1	Yes	0.392	0.170	0.57	Yes	1.00	**2.36**
		U_8 - L_8	-----	-466.53	167	-186	344	-367	200	-161	-590	-236	-----	-----	-----	-----	-----	-----	-----	-----	0.676	0.177	0.86	Yes	0.672	0.321	1.00	Yes	1.00	**2.77**
		U_9 - L_9	-----	-603.62	279	-283	465	-486	933	487	-2012	-477	-----	-----	-----	-----	-----	-----	-----	-----	0.672	0.323	1	Yes	0.647	0.206	0.86	Yes	1.00	**2.19**
		U_{10} - L_{10}	-----	-755.06	236	-235	518	-524	1160	716	-217	94	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.252	1	Yes	0.706	0.231	0.94	Yes	1.00	**2.89**
		U_{11} - L_{11}	-----	-725.34	227	-219	442	-452	1200	692	392	376	-----	-----	-----	-----	-----	-----	-----	-----	0.730	0.261	1	Yes	0.678	0.199	0.88	Yes	1.00	**2.40**
		U_{12} - L_{12}	-----	-729.83	183	-164	366	-357	1485	652	-1140	21	-----	-----	-----	-----	-----	-----	-----	-----	0.700	0.299	1	Yes	0.633	0.157	0.79	Yes	1.00	**2.37**
		U_{13} - L_{13}	-----	-625.61	222	-221	489	-474	1146	300	734	265	-----	-----	-----	-----	-----	-----	-----	-----	0.697	0.297	1	Yes	0.603	0.234	0.84	Yes	1.00	**2.44**
		U_{14} - L_{14}	-----	-1242.39	-60	51	-57	45	914	-150	-551	-424	-----	-----	-----	-----	-----	-----	-----	-----	0.909	0.087	1	Yes	0.824	0.011	0.84	Yes	1.00	**2.92**
		U_{15} - L_{15}	-----	-687.32	-248	261	-633	616	658	57	-688	-163	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.233	1	Yes	0.663	0.303	0.97	Yes	1.00	**3.00**
		U_{16} - L_{16}	-----	-618.45	-179	153	-382	366	756	168	-1747	-213	-----	-----	-----	-----	-----	-----	-----	-----	0.714	0.283	1	Yes	0.663	0.162	0.83	Yes	1.00	**1.81**
		U_{17} - L_{17}	-----	-646.52	-193	186	-523	529	705	178	-502	6	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.172	0.97	Yes	0.752	0.245	1.00	Yes	1.00	**2.71**
		U_{18} - L_{18}	-----	-585.65	-180	179	-459	492	640	193	-624	-36	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.171	0.96	Yes	0.746	0.252	1.00	Yes	1.00	**2.66**
		U_{19} - L_{19}	-----	-478.73	-108	106	-285	288	533	165	-725	-51	-----	-----	-----	-----	-----	-----	-----	-----	0.720	0.208	0.93	Yes	0.715	0.277	1.00	Yes	1.00	**2.57**
		U_{20} - L_{20}	-----	-279.69	-68	72	-121	138	549	169	-1668	-250	-----	-----	-----	-----	-----	-----	-----	-----	0.573	0.421	1	Yes	0.536	0.158	0.70	Yes	1.00	**1.76**
	Structure 3	U_0 - L_0	-----	-278.79	-31	33	-164	187	662	111	-1023	-215	-----	-----	-----	-----	-----	-----	-----	-----	0.630	0.365	1	Yes	0.590	0.239	0.83	Yes	1.00	**4.79**
		U_1 - L_1	-----	-150.97	16	-19	26	-28	844	269	-2441	-411	-----	-----	-----	-----	-----	-----	-----	-----	0.340	0.654	1	Yes	0.319	0.036	0.36	Yes	1.00	**3.53**
		U_2 - L_2	-----	-311.25	35	-39	210	-232	644	239	-699	-201	-----	-----	-----	-----	-----	-----	-----	-----	0.703	0.295	1	Yes	0.659	0.297	0.96	Yes	1.00	**3.76**
		U_3 - L_3	-----	-315.65	78	-81	164	-175	634	240	-1066	-134	-----	-----	-----	-----	-----	-----	-----	-----	0.647	0.346	1	Yes	0.605	0.200	0.81	Yes	1.00	**1.56**
		U_4 - L_4	-----	-470.40	118	-116	304	-298	716	298	-49	89	-----	-----	-----	-----	-----	-----	-----	-----	0.708	0.212	0.92	Yes	0.702	0.292	1.00	Yes	1.00	**2.15**
		U_5 - L_5	-----	-580.34	176	-172	483	-501	852	393	51	216	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.213	0.99	Yes	0.740	0.256	1.00	Yes	1.00	**2.55**
		U_6 - L_6	-----	-585.47	195	-189	503	-507	1278	598	333	309	-----	-----	-----	-----	-----	-----	-----	-----	0.723	0.271	1	Yes	0.681	0.235	0.92	Yes	1.00	**2.57**
		U_7 - L_7	-----	-616.79	129	-100	397	-381	1678	555	-1502	0	-----	-----	-----	-----	-----	-----	-----	-----	0.712	0.286	1	Yes	0.661	0.168	0.83	Yes	1.00	**2.49**
		U_8 - L_8	-----	-605.86	111	-118	597	-595	1256	182	-157	-80	-----	-----	-----	-----	-----	-----	-----	-----	0.675	0.315	1	Yes	0.584	0.286	0.87	Yes	1.00	**3.53**
		U_9 - L_9	-----	-1211.66	-224	195	-177	130	790	-424	-643	-406	-----	-----	-----	-----	-----	-----	-----	-----	0.920	0.079	1	Yes	0.834	0.041	0.88	Yes	1.00	**2.78**
		U_{10} - L_{10}	-----	-720.88	-302	298	-542	522	484	84	-402	-40	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.193	1	Yes	0.695	0.259	0.96	Yes	1.00	**2.32**
		U_{11} - L_{11}	-----	-865.52	-217	193	-468	467	447	146	-561	-57	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.163	1	Yes	0.750	0.201	0.96	Yes	1.00	**2.77**
		U_{12} - L_{12}	-----	-822.71	-246	230	-488	497	422	179	-647	8	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.172	1	Yes	0.769	0.219	0.99	Yes	1.00	**2.95**
		U_{13} - L_{13}	-----	-776.50	-243	243	-489	526	515	253	-1025	-80	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.232	1	Yes	0.726	0.232	0.96	Yes	1.00	**3.31**
		U_{14} - L_{14}	-----	-695.16	-270	274	-531	576	596	301	-1121	-198	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.222	1	Yes	0.745	0.244	0.99	Yes	1.00	**3.59**
		U_{15} - L_{15}	-----	-472.25	-151	168	-330	360	558	264	-1154	-159	-----	-----	-----	-----	-----	-----	-----	-----	0.685	0.307	1	Yes	0.680	0.315	1.00	Yes	1.00	**3.32**
		U_{16} - L_{16}	-----	-183.62	-77	91	-84	100	486	126	-2536	-25	-----	-----	-----	-----	-----	-----	-----	-----	0.415	0.580	1	Yes	0.389	0.128	0.52	Yes	1.00	**2.20**
		U_{17} - L_{17}	181.87	-----	-121	132	130	-135	478	144	-1740	-620	0.317	0.677	1.00	Yes	0.180	0.368	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.07**
		U_{18} - L_{18}	152.16	-254.59	-157	172	200	-235	468	147	-1337	-494	0.274	0.688	0.97	Yes	0.151	0.378	0.53	Yes	0.556	0.439	1	Yes	0.539	0.301	0.84	Yes	1.00	**7.21**
		U_{19} - L_{19}	-----	-295.73	-49	32	178	-199	422	211	480	237	-----	-----	-----	-----	-----	-----	-----	-----	0.646	0.347	1	Yes	0.626	0.255	0.89	Yes	1.00	**4.46**
		U_{20} - L_{20}	-----	-239.60	79	-91	174	-209	593	190	589	189	-----	-----	-----	-----	-----	-----	-----	-----	0.535	0.456	1	Yes	0.507	0.267	0.78	Yes	1.00	**1.96**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Diagonals	Structure 1	$U_0 - L_1$	565.76	-----	4	32	3	-15	-867	-484	136	201	0.742	0.256	1.00	Yes	0.448	0.141	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.72**
		$U_1 - L_2$	354.34	-----	-91	-5	19	-18	-827	-780	451	256	0.637	0.356	1.00	Yes	0.351	0.196	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		$U_2 - L_3$	-----	-248.61	-29	-21	-12	-48	-222	-158	-1553	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.572	0.422	1	Yes	0.526	0.062	0.59	Yes	1.00	**3.27**
		$U_3 - L_4$	-----	-370.24	8	-26	36	-55	-49	-104	-369	-56	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.147	1	Yes	0.783	0.070	0.86	Yes	1.00	**2.91**
		$U_4 - L_4$	562.39	-----	-64	96	-21	33	304	192	-200	11	0.825	0.168	1.00	Yes	0.454	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.96**
		$U_4 - L_5$	640.40	-----	-117	278	-8	117	176	348	-413	139	0.757	0.233	1.00	Yes	0.416	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.20**
		$U_5 - L_6$	620.34	-----	-266	253	-37	93	123	604	-568	38	0.733	0.261	1.00	Yes	0.403	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.88**
		$U_6 - L_7$	632.73	-----	-42	360	31	93	138	-34	-218	-136	0.748	0.245	1.00	Yes	0.411	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.62**
		$U_8 - L_9$	944.52	-----	-79	372	14	187	-613	-374	546	270	0.755	0.244	1.00	Yes	0.468	0.137	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.41**
		$U_9 - L_{10}$	941.61	-----	-289	245	-115	127	-869	-562	544	232	0.753	0.239	1.00	Yes	0.466	0.136	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.07**
		$U_{10} - L_{11}$	933.50	-----	-213	211	-83	94	-849	-686	166	-22	0.789	0.210	1.00	Yes	0.488	0.120	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.35**
		$U_{11} - L_{12}$	745.37	-----	-234	85	-96	47	-831	-1001	148	-37	0.737	0.258	1.00	Yes	0.406	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.73**
		$U_{12} - L_{13}$	568.46	-----	-204	142	-81	61	-650	-583	159	17	0.693	0.305	1.00	Yes	0.436	0.174	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.94**
		$U_{13} - L_{14}$	349.42	-----	-83	13	-32	10	-900	-876	188	3	0.628	0.367	1.00	Yes	0.346	0.202	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.11**
		$U_{15} - L_{14}$	312.62	-189.10	-123	-37	31	-51	936	-346	-343	-186	0.562	0.428	1.00	Yes	0.309	0.236	0.55	Yes	0.443	0.456	0.9	Yes	0.400	0.157	0.56	Yes	1.00	**9.04**
		$U_{16} - L_{15}$	392.46	-----	-156	88	-11	-8	327	28	-299	-125	0.706	0.294	1.00	Yes	0.388	0.162	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.71**
		$U_{17} - L_{16}$	525.97	-----	-148	95	-44	21	92	-2	-311	-110	0.771	0.223	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.35**
		$U_{18} - L_{17}$	619.03	-----	-339	255	-127	86	76	55	-406	-118	0.732	0.266	1.00	Yes	0.403	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.72**
		$U_{19} - L_{18}$	691.79	-----	-328	248	-129	94	-96	46	-461	-207	0.749	0.243	1.00	Yes	0.412	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.86**
		$U_{20} - L_{19}$	680.78	-----	-415	332	-178	142	-180	-137	-271	-141	0.737	0.257	1.00	Yes	0.406	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.75**
	Structure 2	$U_0 - L_1$	715.73	-----	-188	277	-97	122	-1071	-355	-126	20	0.708	0.289	1.00	Yes	0.389	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.36**
		$U_1 - L_2$	706.81	-----	-382	291	-151	107	-793	-573	171	-6	0.699	0.296	1.00	Yes	0.385	0.163	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.30**
		$U_2 - L_3$	575.86	-----	-308	246	-104	77	-758	-540	155	-3	0.681	0.312	1.00	Yes	0.374	0.171	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		$U_3 - L_4$	515.40	-----	-167	109	-44	19	-761	-485	194	29	0.687	0.312	1.00	Yes	0.378	0.172	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.29**
		$U_4 - L_5$	312.18	-----	-125	72	13	-26	-953	-459	271	61	0.561	0.436	1.00	Yes	0.309	0.240	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		$U_5 - L_6$	244.12	-239.76	-84	2	69	-69	-1415	-497	403	128	0.439	0.517	0.96	Yes	0.241	0.284	0.53	Yes	0.566	0.431	1	Yes	0.507	0.107	0.62	Yes	1.00	**5.15**
		$U_6 - L_7$	-----	-378.64	-3	-44	41	-102	-253	-555	-625	-181	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.185	1	Yes	0.725	0.116	0.85	Yes	1.00	**4.21**
		$U_8 - L_7$	537.86	-----	-205	109	-96	59	-32	612	-535	-574	0.686	0.308	1.00	Yes	0.432	0.176	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.26**
		$U_8 - L_9$	718.69	-----	-346	235	-166	141	144	-15	-238	-22	0.778	0.216	1.00	Yes	0.428	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.63**
		$U_{10} - L_9$	789.38	-----	-276	252	-138	138	84	552	-163	83	0.781	0.211	1.00	Yes	0.430	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.44**
		$U_{11} - L_{10}$	868.98	-----	-347	294	-133	169	188	324	-386	174	0.792	0.200	1.00	Yes	0.435	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.69**
		$U_{12} - L_{11}$	841.48	-----	-340	343	-128	177	-61	251	-598	64	0.767	0.227	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.58**
		$U_{13} - L_{12}$	728.06	-----	-415	381	-158	163	-241	161	-529	-7	0.720	0.272	1.00	Yes	0.396	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.59**
		$U_{14} - L_{13}$	774.13	-----	-274	440	-8	120	-128	64	-157	-117	0.766	0.228	1.00	Yes	0.421	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.14**
		$U_{14} - L_{15}$	592.79	-----	-188	346	8	151	-322	-117	569	259	0.701	0.299	1.00	Yes	0.385	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.87**
		$U_{15} - L_{16}$	585.67	-----	-347	319	-154	149	53	-370	602	197	0.692	0.306	1.00	Yes	0.381	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.95**
		$U_{16} - L_{17}$	668.70	-----	-319	347	-113	158	-390	-287	537	210	0.724	0.266	1.00	Yes	0.398	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.45**
		$U_{17} - L_{18}$	628.73	-----	-282	279	-100	142	-504	-323	525	182	0.743	0.255	1.00	Yes	0.409	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.34**
		$U_{18} - L_{19}$	602.92	-----	-275	248	-77	109	-682	-478	366	146	0.713	0.279	1.00	Yes	0.392	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.68**
		$U_{19} - L_{20}$	511.22	-----	-181	124	-45	62	-695	-892	383	170	0.652	0.344	1.00	Yes	0.359	0.198	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.73**
		$U_{20} - L_{21}$	351.83	-----	-114	96	-16	25	-740	-329	416	222	0.633	0.359	1.00	Yes	0.348	0.198	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.25**
		$U_{21} - L_{22}$	233.82	-----	-82	24	-24	-78	-1044	-430	-1607	-647	0.421	0.571	1.00	Yes	0.231	0.314	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.58**
		$U_{23} - L_{22}$	372.59	-----	-124	37	2	22	575	-77	-260	48	0.670	0.325	1.00	Yes	0.369	0.179	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.26**
		$U_{24} - L_{23}$	418.33	-----	-132	104	-19	37	267	90	-219	-6	0.752	0.246	1.00	Yes	0.414	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.50**
		$U_{25} - L_{24}$	563.51	-----	-179	165	-43	77	127	567	-262	-33	0.719	0.276	1.00	Yes	0.395	0.158	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.43**
		$U_{26} - L_{25}$	659.62	-----	-260	292	-65	124	279	248	-226	-1	0.780	0.216	1.00	Yes	0.429	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.63**
		$U_{27} - L_{26}$	626.60	-----	-264	304	-82	129	101	268	-430	140	0.741	0.250	1.00	Yes	0.407	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.41**
		$U_{28} - L_{27}$	657.12	-----	-280	350	-70	128	-53	220	-634	31	0.712	0.283	1.00	Yes	0.391	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.62**
		$U_{29} - L_{28}$	583.21	-----	-342	322	-62	78	10	577	-638	-77	0.690	0.309	1.00	Yes	0.379	0.170	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.84**
		$U_{30} - L_{29}$	579.60	-----	-139	375	61	39	532	94	-288	-250	0.685	0.309	1.00	Yes	0.377	0.170	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.11**
		$U_{30} - L_{31}$	724.69	-----	-258	435	-45	222	-470	-243	509	233	0.717	0.278	1.00	Yes	0.394	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.79**
		$U_{31} - L_{32}$	735.16	-----	-425	378	-224	211	-426	-248	474	139	0.727	0.268	1.00	Yes	0.400	0.148	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.07**
		$U_{32} - L_{33}$	820.38	-----	-338	331	-154	193	-756	-528	305	82	0.747	0.247	1.00	Yes	0.411	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.42**
		$U_{33} - L_{34}$	805.50	-----	-317	258	-140	167	-953	-666	266	65	0.734	0.265	1.00	Yes	0.404	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.41**
		$U_{34} - L_{35}$	725.50	-----	-296	209	-138	136	-947	-634	112	-41	0.718	0.279	1.00	Yes	0.395	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.59**
		$U_{35} - L_{36}$	642.37	-----	-309	199	-160	131	-883	-529	129	-8	0.696	0.303	1.00	Yes	0.383	0.167	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.55**
		$U_{36} - L_{37}$	513.31	-----	-173	143	-82	64	-912	-608	90	-69	0.655	0.341	1.00	Yes	0.412	0.197	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.39**
		$U_{38} - L_{37}$	-----	-351.88	-55	-65	33	-91	115	541	363	-93	-----	-----	-----	-----	-----	-----	-----	-----	0.760	0.234	1	Yes	0.674	0.104	0.78	Yes	1.00	**4.42**
		$U_{39} - L_{38}$	377.79	-211.85	-124	41	59	-66	546	-90	-365	-80	0.679	0.317	1.00	Yes	0.374	0.174	0.55	Yes	0.505	0.314	0.82	Yes	0.448	0.159	0.61	Yes	1.00	**5.44**
		$U_{40} - L_{39}$	393.90	-----	-139	90	3	-16	155	40	-378	-100	0.708	0.288	1.00	Yes	0.390	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.50**
		$U_{41} - L_{40}$	559.79	-----	-178	125	-51	25	7	7	-413	-181	0.746	0.249	1.00	Yes	0.410	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.49**
		$U_{42} - L_{41}$	623.27	-----	-329	264	-112	83	-29	38	-409	-173	0.737	0.260	1.00	Yes	0.405	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.58**
		$U_{43} - L_{42}$	772.32	-----	-376	309	-125	93	-89	84	-388	-200	0.764	0.232	1.00	Yes	0.420	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.26**
		$U_{44} - L_{43}$	786.52	-----	-404	381	-170	149	52	57	-210	-92	0.778	0.219	1.00	Yes	0.428	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
	Structure 3	$U_0 - L_1$	650.92	-----	-180	234	-79	104	-1034	-377	-144	3	0.705	0.290	1.00	Yes	0.388	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.46**
		$U_1 - L_2$	635.30	-----	-338	242	-159	109	-797	-538	161	-42	0.688	0.304	1.00	Yes	0.378	0.167	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.29**
		$U_2 - L_3$	564.38	-----	-305	241	-124	86	-881	-622	129	-28	0.667	0.332	1.00	Yes	0.367	0.183	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.49**
		$U_3 - L_4$	460.55	-----	-133	73	-43	21	-669	-805	150	-28	0.675	0.323	1.00	Yes	0.371	0.178	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		$U_4 - L_5$	280.49	-----	-140	64	11	-24	-1087	-672	334	91	0.504	0.493	1.00	Yes	0.277	0.271	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.08**
		$U_5 - L_6$	-----	-209.57	-28	-61	18	-104	-501	-531	-1067	-420	-----	-----	-----	-----	-----	-----	-----	-----	0.491	0.500	1	Yes	0.443	0.133	0.58	Yes	1.00	**4.04**
		$U_7 - L_6$	440.68	-----	-96	43	-38	12	153	-131	-286	-163	0.793	0.206	1.00	Yes	0.436	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.25**
		$U_8 - L_7$	631.01	-----	-204	166	-93	70	245	114	-241	-103	0.769	0.226	1.00	Yes	0.484	0.127	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.56**
		$U_8 - L_9$	832.18	-----	-231	155	-81	64	437	380	-364	107	0.823	0.173	1.00	Yes	0.453	0.095	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.04**
		$U_{10} - L_9$	962.46	-----	-187	247	-56	101	472	513	-424	142	0.813	0.182	1.00	Yes	0.503	0.103	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.45**
		$U_{11} - L_{10}$	929.61	-----	-281	256	-82	106	517	996	-538	-34	0.743	0.252	1.00	Yes	0.460	0.144	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.79**
		$U_{12} - L_{11}$	940.30	-----	-22	402	20	132	403	274	-507	-112	0.752	0.244	1.00	Yes	0.466	0.137	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.40**
		$U_{13} - L_{12}$	601.94	-----	-87	299	12	163	-277	-223	620	350	0.712	0.283	1.00	Yes	0.391	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.86**
		$U_{13} - L_{14}$	593.50	-----	-277	214	-98	130	-434	-556	719	319	0.702	0.288	1.00	Yes	0.386	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.54**
		$U_{14} - L_{15}$	505.91	-----	-150	211	-56	101	-1507	-242	264	55	0.598	0.393	1.00	Yes	0.329	0.216	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.74**
		$U_{15} - L_{16}$	531.57	-----	-75	61	-25	29	-403	-586	216	52	0.780	0.213	1.00	Yes	0.429	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.88**
		$U_{17} - L_{16}$	-----	-327.55	-28	-56	39	-24	-65	78	-470	-116	-----	-----	-----	-----	-----	-----	-----	-----	0.749	0.244	1	Yes	0.693	0.072	0.77	Yes	1.00	**5.15**
		$U_{18} - L_{17}$	-----	-349.04	-112	-11	69	-43	283	-120	-204	-65	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.194	1	Yes	0.739	0.143	0.89	Yes	1.00	**8.19**
		$U_{19} - L_{18}$	460.90	-----	-84	6	40	-30	109	53	-207	-118	0.829	0.167	1.00	Yes	0.456	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.05**
		$U_{20} - L_{19}$	618.91	-----	-143	81	-24	-3	-3	23	-71	-4	0.812	0.184	1.00	Yes	0.490	0.102	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.11**

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Upper Chord	Structure 1	U_0 - U_1			-----	-594.40	-171	161	-436	-566	8	12	-66	-131	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.184	1.00	Yes	0.802	0.135	0.94	Yes	1.00	**7.94**
		U_1 - U_2			-----	-596.86	-54	117	-158	-621	-7	-7	-16	-153	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.180	1.00	Yes	0.805	0.148	0.96	Yes	1.00	**4.30**
		U_2 - U_3			-----	-638.18	-107	306	-455	-300	10	26	-26	129	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.128	1.00	Yes	0.861	0.108	0.97	Yes	1.00	**4.00**
		U_3 - U_4			359.31	-561.58	85	319	-391	-618	5	38	157	61	0.412	0.173	0.59	Yes	0.283	0.119	0.41	Yes	0.764	0.234	1.00	Yes	0.757	0.147	0.91	Yes	1.00	**3.95**
		U_4 - U_5			380.20	-583.17	139	311	-871	-148	21	-31	93	-51	0.436	0.223	0.66	Yes	0.299	0.153	0.46	Yes	0.793	0.195	0.99	Yes	0.786	0.207	1.00	Yes	1.00	**4.14**
		U_5 - U_6			722.72	-----	284	498	-453	266	-157	-78	248	-288	0.828	0.167	1.00	Yes	0.559	0.110	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.58**
		U_6 - U_7			896.51	-----	396	233	-333	25	-319	-132	387	-118	0.857	0.137	1.00	Yes	0.599	0.095	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.13**
		U_7 - U_8			1004.25	-----	-392	1808	-163	884	-210	-223	-111	-221	0.696	0.297	1.00	Yes	0.485	0.202	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.45**
		U_8 - U_9			852.67	-----	1444	-417	691	-168	-433	-91	-237	-120	0.699	0.295	1.00	Yes	0.478	0.201	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.05**
		U_9 - U_{10}			766.03	-----	246	338	267	-283	-260	29	-18	568	0.831	0.167	1.00	Yes	0.563	0.112	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.82**
		U_{10} - U_{11}			-----	-618.96	371	-27	300	-926	23	102	215	143	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.165	0.97	Yes	0.790	0.207	1.00	Yes	1.00	**5.72**
		U_{11} - U_{12}			-----	-891.24	230	-104	49	-653	112	403	154	613	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.150	1.00	Yes	0.836	0.108	0.95	Yes	1.00	**3.52**
		U_{12} - U_{13}			-----	-1276.35	10	-234	-193	-575	346	205	538	331	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.133	1.00	Yes	0.853	0.079	0.94	Yes	1.00	**3.53**
		U_{13} - U_{14}			-----	-1350.91	-154	-389	-462	-1406	225	177	383	502	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.213	1.00	Yes	0.774	0.155	0.93	Yes	1.00	**2.81**
		U_{14} - U_{15}			-----	-1351.81	-280	-254	-1312	-605	213	29	590	170	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.211	1.00	Yes	0.775	0.145	0.92	Yes	1.00	**2.81**
		U_{15} - U_{16}			-----	-1484.69	-143	-431	-556	-797	79	36	430	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.136	1.00	Yes	0.851	0.088	0.94	Yes	1.00	**3.43**
		U_{16} - U_{17}			-----	-1426.45	-336	-210	-1100	-403	133	-53	604	57	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.170	1.00	Yes	0.818	0.121	0.94	Yes	1.00	**3.90**
		U_{17} - U_{18}			-----	-1101.26	-203	-80	-673	105	-14	-62	459	-58	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.122	1.00	Yes	0.862	0.110	0.98	Yes	1.00	**4.08**
		U_{18} - U_{19}			-----	-737.56	-191	-74	-714	-38	15	-116	466	-278	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.156	1.00	Yes	0.830	0.144	0.98	Yes	1.00	**4.41**
		U_{19} - U_{20}			-----	-469.27	-255	288	-1545	2336	-71	-119	415	-1349	-----	-----	-----	-----	-----	-----	-----	-----	0.533	0.333	0.87	Yes	0.528	0.470	1.00	Yes	1.00	**9.52**
	Structure 2	U_0 - U_1			-----	-649.83	-104	-11	-184	-1296	9	-61	-54	-117	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.220	1.00	Yes	0.767	0.220	0.99	Yes	1.00	**9.14**
		U_1 - U_2			-----	-878.30	-54	-146	47	-880	-72	-219	-34	-152	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.141	1.00	Yes	0.848	0.134	0.99	Yes	1.00	**4.95**
		U_2 - U_3			-----	-1206.74	-109	-228	-74	-1133	-23	408	-82	108	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.131	1.00	Yes	0.856	0.115	0.98	Yes	1.00	**4.31**
		U_3 - U_4			-----	-1396.96	-413	-388	-780	-1018	560	961	192	173	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.193	1.00	Yes	0.795	0.091	0.89	Yes	1.00	**3.49**
		U_4 - U_5			-----	-1556.80	-452	-327	-830	-1395	810	320	237	138	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.194	1.00	Yes	0.799	0.116	0.92	Yes	1.00	**3.36**
		U_5 - U_6			-----	-1641.23	-392	70	-1149	-770	182	-246	263	377	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.143	1.00	Yes	0.843	0.095	0.94	Yes	1.00	**3.26**
		U_6 - U_7			-----	-1393.18	-261	-83	-956	-1427	-151	-196	335	133	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.192	1.00	Yes	0.793	0.127	0.93	Yes	1.00	**2.65**
		U_7 - U_8			-----	-1405.05	-179	-154	-1529	-823	-114	-192	206	52	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.186	1.00	Yes	0.800	0.136	0.94	Yes	1.00	**2.69**
		U_8 - U_9			-----	-1277.12	-244	158	-961	-400	-109	-208	310	-229	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.121	1.00	Yes	0.866	0.102	0.97	Yes	1.00	**2.98**
		U_9 - U_{10}			-----	-968.32	-50	374	-1134	-129	-149	-157	258	-50	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.150	1.00	Yes	0.836	0.138	0.98	Yes	1.00	**3.16**
		U_{10} - U_{11}			655.73	-825.85	290	468	-1086	-96	-216	-183	333	-135	0.554	0.194	0.75	Yes	0.377	0.126	0.51	Yes	0.826	0.170	1.00	Yes	0.821	0.153	0.98	Yes	1.00	**4.85**
		U_{11} - U_{12}			934.84	-----	313	594	-1082	389	-389	-145	428	-112	0.790	0.205	1.00	Yes	0.530	0.137	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.37**
		U_{12} - U_{13}			1303.57	-----	-98	-175	-326	-131	26	-747	-234	-479	0.880	0.112	1.00	Yes	0.627	0.078	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.60**
		U_{13} - U_{14}			1232.62	-----	-859	3509	-431	1606	-416	-866	-498	-655	0.606	0.384	1.00	Yes	0.429	0.252	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.49**
		U_{14} - U_{15}			1282.83	-----	3205	-320	1302	68	-1041	-627	-818	-609	0.631	0.368	1.00	Yes	0.447	0.242	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.26**
		U_{15} - U_{16}			1509.95	-----	111	137	13	190	-703	156	-316	14	0.913	0.081	1.00	Yes	0.649	0.057	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.05**
		U_{16} - U_{17}			1190.09	-----	606	452	679	-556	-339	-82	246	190	0.877	0.121	1.00	Yes	0.583	0.079	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.91**
		U_{17} - U_{18}			822.09	-----	427	402	346	-383	-4	195	79	641	0.825	0.166	1.00	Yes	0.549	0.110	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		U_{18} - U_{19}			816.27	-518.90	525	422	393	-717	62	113	350	275	0.819	0.173	1.00	Yes	0.538	0.111	0.65	Yes	0.617	0.183	0.80	Yes	0.613	0.122	0.74	Yes	1.00	**5.60**
		U_{19} - U_{20}			616.37	-784.17	391	336	-127	-540	0	-62	128	421	0.578	0.143	0.73	Yes	0.383	0.094	0.48	Yes	0.871	0.129	1.00	Yes	0.865	0.086	0.96	Yes	1.00	**4.72**
		U_{20} - U_{21}			486.74	-949.88	218	211	-237	-571	-84	-73	291	169	0.378	0.115	0.50	Yes	0.264	0.075	0.34	Yes	0.873	0.122	1.00	Yes	0.867	0.083	0.95	Yes	1.00	**4.21**
		U_{21} - U_{22}			311.76	-834.41	75	153	-510	-1121	-29	30	185	341	0.242	0.200	0.45	Yes	0.171	0.134	0.31	Yes	0.767	0.228	1.00	Yes	0.762	0.162	0.93	Yes	1.00	**3.10**
		U_{22} - U_{23}			312.67	-836.20	163	56	-1107	-507	-3	-10	407	83	0.243	0.205	0.45	Yes	0.172	0.138	0.31	Yes	0.769	0.226	1.00	Yes	0.763	0.160	0.93	Yes	1.00	**3.10**
		U_{23} - U_{24}			450.66	-960.29	187	191	-509	-382	-108	-27	319	-163	0.350	0.109	0.46	Yes	0.245	0.071	0.32	Yes	0.883	0.112	1.00	Yes	0.876	0.074	0.96	Yes	1.00	**4.02**
		U_{24} - U_{25}			529.43	-795.04	299	304	-693	-99	-133	-27	392	-136	0.497	0.164	0.67	Yes	0.329	0.107	0.44	Yes	0.883	0.116	1.00	Yes	0.877	0.111	0.99	Yes	1.00	**4.23**
		U_{25} - U_{26}			811.54	-683.22	413	455	-741	373	-260	-3	300	-249	0.815	0.170	0.99	Yes	0.534	0.108	0.65	Yes	0.812	0.181	1.00	Yes	0.807	0.126	0.94	Yes	1.00	**5.90**
		U_{26} - U_{27}			843.55	-----	469	327	-617	442	-311	5	262	-287	0.847	0.150	1.00	Yes	0.564	0.099	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.56**
		U_{27} - U_{28}			1173.99	-----	447	445	-658	628	-476	82	241	-217	0.865	0.133	1.00	Yes	0.576	0.087	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.94**
		U_{28} - U_{29}			1514.64	-----	-306	129	-84	-2	111	-559	-340	-328	0.916	0.082	1.00	Yes	0.651	0.057	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.80**
		U_{29} - U_{30}			1293.75	-----	-394	3277	-18	1049	-501	-740	-310	-207	0.636	0.354	1.00	Yes	0.450	0.232	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		U_{30} - U_{31}			1284.72	-----	3213	-589	1068	-116	-895	-448	-314	-195	0.632	0.359	1.00	Yes	0.447	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.72**
		U_{31} - U_{32}			1357.00	-----	-21	126	-119	-204	-529	228	183	481	0.916	0.076	1.00	Yes	0.653	0.053	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.00**
		U_{32} - U_{33}			975.38	-----	505	328	418	-811	-101	-17	472	443	0.824	0.172	1.00	Yes	0.553	0.115	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.32**
		U_{33} - U_{34}			881.93	-719.62	480	373	-70	-914	-12	212	417	979	0.745	0.248	1.00	Yes	0.507	0.164	0.68	Yes	0.719	0.218	0.94	Yes	0.715	0.129	0.85	Yes	1.00	**5.85**
		U_{34} - U_{35}			450.53	-943.34	414	124	-62	-1080	179	148	592	462	0.330	0.196	0.53	Yes	0.224	0.132	0.36	Yes	0.819	0.177	1.00	Yes	0.814	0.131	0.95	Yes	1.00	**4.20**
		U_{35} - U_{36}			-----	-1246.78	213	-104	-313	-906	96	85	360	437	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.146	1.00	Yes	0.846	0.096	0.95	Yes	1.00	**3.76**
		U_{36} - U_{37}			-----	-1377.72	-40	52	-744	-1563	84	-3	406	267	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.201	1.00	Yes	0.784	0.139	0.93	Yes	1.00	**3.30**
		U_{37} - U_{38}			-----	-1380.47	143	-127	-1458	-953	41	22	323	232	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.204	1.00	Yes	0.786	0.130	0.92	Yes	1.00	**3.30**
		U_{38} - U_{39}			-----	-1634.41	186	-265	-728	-1263	129	-27	539	-69	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.148	1.00	Yes	0.839	0.105	0.95	Yes	1.00	**3.85**
		U_{39} - U_{40}			-----	-1557.85	-157	-328	-1518	-940	26	-13	440	91	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.185	1.00	Yes	0.800	0.126	0.93	Yes	1.00	**3.87**
		U_{40} - U_{41}			-----	-1465.49	-203	-329	-1172	-801	54	-98	395	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.154	1.00	Yes	0.834	0.104	0.94	Yes	1.00	**4.20**
		U_{41} - U_{42}			-----	-1221.26	-99	-157	-1139	-3	-71	-80	392	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.119	1.00	Yes	0.867	0.116	0.99	Yes	1.00	**4.76**
		U_{42} - U_{43}			-----	-859.03	-93	-70	-895	-191	-33	-71	331	-310	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.158	1.00	Yes	0.829	0.136	0.97	Yes	1.00	**5.13**
		U_{43} - U_{44}			-----	-531.56	55	-317	-1737	2170	-55	73	150	-1059	-----	-----	-----	-----	-----	-----	-----	-----	0.632	0.241	0.88	Yes	0.628	0.368	1.00	Yes	1.00	**8.04**
	Structure 3	U_0 - U_1			-----	-682.34	-25	-145	-207	-1108	10	-78	-159	-224	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.218	1.00	Yes	0.768	0.223	1.00	Yes	1.00	**12.00**
		U_1 - U_2			-----	-756.64	-38	-132	141	-666	-63	-233	-67	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.138	1.00	Yes	0.851	0.134	0.99	Yes	1.00	**4.92**
		U_2 - U_3			-----	-1106.07	-80	-157	37	-665	-51	342	-120	183	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.123	1.00	Yes	0.865	0.108	0.98	Yes	1.00	**4.59**
		U_3 - U_4			-----	-1418.26	-191	-307	-383	-911	497	831	236	275	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.177	1.00	Yes	0.813	0.100	0.92	Yes	1.00	**4.35**
		U_4 - U_5			-----	-1475.86	-399	-53	-643	-544	689	230	346	167	-----	-----	-----	-----	-----	-----	-----	-----	0.855	0.135	1.00	Yes	0.846	0.071	0.92	Yes	1.00	**3.72**
		U_5 - U_6			-----	-1364.22	-188	-282	-581	-1399	141	-148	259	312	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.204	1.00	Yes	0.782	0.154	0.94	Yes	1.00	**3.02**
		U_6 - U_7			-----	-1373.48	-380	-107	-1469	-454	-89	-186	396	56	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.196	1.00	Yes	0.787	0.162	0.95	Yes	1.00	**3.06**
		U_7 - U_8			-----	-1327.58	-161	9	-519	-315	-62	-180	290	-270	-----	-----	-----	-----	-----	-----	-----	-----	0.898	0.102	1.00	Yes	0.887	0.072	0.96	Yes	1.00	**3.63**
		U_8 - U_9			-----	-929.30	-94	188	-730	10	-36	-156	267	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.880	0.111	1.00	Yes	0.872	0.121	1.00	Yes	1.00	**3.21**
		U_9 - U_{10}			-----	-641.47	-49	258	-809	202	-113	-110	223	-178	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.143	0.97	Yes	0.819	0.181	1.00	Yes	1.00	**4.31**
		U_{10} - U_{11}			743.54	-----	344	243	-566	267	-265	-162	356	-407	0.806	0.192	1.00	Yes	0.546	0.129	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.58**
		U_{11} - U_{12}			818.72	-----	-544	1578	-155	559	-211	-523	-217	-189	0.671	0.329	1.00	Yes	0.459	0.224	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.89**
		U_{12} - U_{13}			994.50	-----	1609	-260	554	12	-629	-370	-276	-270	0.689	0.308	1.00	Yes	0.481	0.210	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.78**
		U_{13} - U_{14}			880.29	-----	226	462	69	-96	-409	-212	-117	291	0.842	0.155	1.00	Yes	0.588	0.106	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.16**
		U_{14} - U_{15}			744.09	-----	485	360	307	-355	-145	-37	155	36	0.853	0.141	1.00	Yes	0.575	0.092	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.51**
		U_{15} - U_{16}			504.74	-561.08	395	278	-143	-830	-69	136	91	457	0.579	0.275	0.86	Yes	0.397	0.188	0.59	Yes	0.763	0.227	1.00	Yes	0.757	0.197	0.96	Yes	1.00	**4.81**
		U_{16} - U_{17}			506.89	-575.16	467	177	-621	-409	58	81	447	216	0.581	0.223	0.81	Yes	0.399	0.153	0.56	Yes	0.783	0.217	1.00	Yes	0.776	0.148	0.93	Yes	1.00	**4.88**
		U_{17} - U_{18}			302.26	-615.65	414	-37	-289	-479	-96	65	316	-19	0.346	0.167	0.52	Yes	0.234	0.110	0.35	Yes	0.838	0.154	1.00	Yes	0.830	0.114	0.95	Yes	1.00	**4.58**
		U_{18} - U_{19}			-----	-546.47	232	-28	-633	-334	-97	40	515	-17	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.256	1.00	Yes	0.737	0.151	0.89	Yes	1.00	**4.46**
		U_{19} - U_{20}			-----	-522.69	294	-456	-1085	1210	-214	238	412	-756	-----	-----	-----	-----	-----	-----	-----	-----	0.711	0.160	0.88	Yes	0.705	0.288	1.00	Yes	1.00	**8.16**

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass				
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																			
North Truss - Lower Chord	Structure 1	L_0 - L_1			330.84	-----	-135	-190	1035	-1345	50	184	-107	-395	0.506	0.488	1.00	Yes	0.298	0.298	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**36.09**
		L_1 - L_2			484.00	-----	157	-741	137	67	-154	-85	-24	-64	0.741	0.255	1.00	Yes	0.452	0.172	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.24**
		L_2 - L_3			718.57	-----	-466	-616	25	119	-97	-53	-40	47	0.827	0.164	1.00	Yes	0.478	0.099	0.58	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.59**
		L_3 - L_4			693.04	-----	-282	-750	113	341	-71	-75	87	72	0.797	0.195	1.00	Yes	0.474	0.127	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.53**
		L_4 - L_5			-----	-523.84	-743	479	109	601	-250	165	57	37	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.165	0.98	Yes	0.798	0.197	1.00	Yes	1.00	**3.59**
		L_5 - L_6			-----	-706.94	-93	217	155	583	385	124	70	121	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.167	1.00	Yes	0.816	0.129	0.95	Yes	1.00	**3.40**
		L_6 - L_7			-----	-1179.67	-182	275	-196	313	48	53	-8	116	-----	-----	-----	-----	-----	-----	-----	-----	0.960	0.033	1.00	Yes	0.950	0.049	1.00	Yes	1.00	**4.32**
		L_7 - L_8			-----	-1267.86	10	600	-3	1360	-64	-75	37	-3	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.183	1.00	Yes	0.803	0.180	0.99	Yes	1.00	**2.89**
		L_8 - L_9			-----	-1289.23	571	-30	1267	-50	-122	-144	-53	-53	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.172	1.00	Yes	0.817	0.168	0.99	Yes	1.00	**2.93**
		L_9 - L_{10}			-----	-1161.75	266	-152	400	-184	-98	30	92	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.945	0.039	0.99	Yes	0.935	0.063	1.00	Yes	1.00	**4.75**
		L_{10} - L_{11}			-----	-544.12	229	-237	626	-321	237	105	76	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.108	0.95	Yes	0.829	0.166	1.00	Yes	1.00	**4.37**
		L_{11} - L_{12}			557.18	-----	485	-931	564	-112	17	-146	94	-35	0.722	0.272	1.00	Yes	0.433	0.179	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.17**
		L_{12} - L_{13}			1134.65	-----	-168	-506	220	-45	64	13	24	28	0.895	0.097	1.00	Yes	0.573	0.058	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.62**
		L_{13} - L_{14}			1290.00	-----	306	-1637	353	-444	-1	-142	10	-3	0.759	0.237	1.00	Yes	0.491	0.145	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.34**
		L_{14} - L_{15}			1537.98	-----	-1810	-297	-370	-27	-322	31	-120	-64	0.751	0.241	1.00	Yes	0.488	0.146	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.60**
		L_{15} - L_{16}			1718.53	-----	-992	-1107	-205	-351	20	-379	-129	-52	0.840	0.160	1.00	Yes	0.539	0.094	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.95**
		L_{16} - L_{17}			1155.52	-----	-1354	194	-413	93	-681	93	-98	-52	0.731	0.259	1.00	Yes	0.474	0.161	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.18**
		L_{17} - L_{18}			1007.29	-----	-450	-98	-179	22	273	-26	-85	-19	0.877	0.122	1.00	Yes	0.561	0.074	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.94**
		L_{18} - L_{19}			409.64	-----	-535	390	-849	666	-120	170	-557	203	0.627	0.370	1.00	Yes	0.424	0.236	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.82**
		L_{19} - L_{20}			109.01	-460.75	-270	80	-546	256	105	23	142	32	0.167	0.193	0.37	Yes	0.102	0.130	0.24	Yes	0.837	0.120	0.96	Yes	0.830	0.164	1.00	Yes	1.00	**5.33**
	Structure 2	L_0 - L_1			405.37	-----	237	-968	824	-2179	36	126	-99	-345	0.492	0.500	1.00	Yes	0.293	0.322	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**24.89**
		L_1 - L_2			585.22	-----	531	-1325	129	-136	-94	-58	-62	-10	0.711	0.285	1.00	Yes	0.423	0.184	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.32**
		L_2 - L_3			1037.19	-----	142	-1038	-69	-101	-14	-23	61	82	0.828	0.162	1.00	Yes	0.544	0.093	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.50**
		L_3 - L_4			1391.50	-----	0	-1265	18	-383	-37	-14	178	78	0.826	0.165	1.00	Yes	0.557	0.106	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.94**
		L_4 - L_5			1829.12	-----	-819	-1308	-385	-188	-65	-139	90	222	0.853	0.139	1.00	Yes	0.565	0.082	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.93**
		L_5 - L_6			1944.13	-----	-761	-1776	-125	-294	-117	-131	128	-17	0.834	0.166	1.00	Yes	0.560	0.101	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.19**
		L_6 - L_7			1944.06	-----	-1700	-1856	-376	-24	-95	198	-176	42	0.823	0.175	1.00	Yes	0.547	0.102	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.66**
		L_7 - L_8			1396.55	-----	-1573	-498	-184	346	-172	-298	-128	8	0.801	0.198	1.00	Yes	0.526	0.117	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		L_8 - L_9			1132.78	-----	-1094	189	-36	579	-176	538	-22	18	0.792	0.198	1.00	Yes	0.534	0.125	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.50**
		L_9 - L_{10}			755.10	-753.27	-1270	139	-57	820	88	-306	32	105	0.674	0.240	0.92	Yes	0.392	0.149	0.55	Yes	0.796	0.150	0.95	Yes	0.791	0.203	1.00	Yes	1.00	**5.43**
		L_{10} - L_{11}			-----	-761.66	-596	439	136	543	-406	188	69	0	-----	-----	-----	-----	-----	-----	-----	-----	0.901	0.097	1.00	Yes	0.895	0.104	1.00	Yes	1.00	**3.99**
		L_{11} - L_{12}			-----	-1022.21	-314	438	-526	1179	133	283	47	9	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.119	0.97	Yes	0.838	0.161	1.00	Yes	1.00	**3.65**
		L_{12} - L_{13}			-----	-1515.69	-401	-70	-385	-605	177	-94	69	109	-----	-----	-----	-----	-----	-----	-----	-----	0.914	0.081	1.00	Yes	0.907	0.060	0.97	Yes	1.00	**3.88**
		L_{13} - L_{14}			-----	-1513.21	-348	1243	-846	2680	-194	-335	-84	-284	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.179	0.95	Yes	0.761	0.234	1.00	Yes	1.00	**2.74**
		L_{14} - L_{15}			-----	-1515.90	1185	-425	2616	-939	-370	-252	-342	-187	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.172	0.95	Yes	0.763	0.228	1.00	Yes	1.00	**2.72**
		L_{15} - L_{16}			-----	-1528.26	-376	55	-855	80	-180	38	-109	40	-----	-----	-----	-----	-----	-----	-----	-----	0.922	0.073	1.00	Yes	0.914	0.085	1.00	Yes	1.00	**3.49**
		L_{16} - L_{17}			-----	-1127.66	689	-89	1380	-182	254	69	115	-91	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.148	0.98	Yes	0.821	0.170	1.00	Yes	1.00	**3.00**
		L_{17} - L_{18}			-----	-840.26	388	-142	712	-285	108	-32	-15	-111	-----	-----	-----	-----	-----	-----	-----	-----	0.889	0.082	0.98	Yes	0.882	0.114	1.00	Yes	1.00	**3.37**
		L_{18} - L_{19}			-----	-650.45	287	-158	641	196	18	128	-7	32	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.121	1.00	Yes	0.867	0.124	1.00	Yes	1.00	**4.30**
		L_{19} - L_{20}			-----	-658.51	322	-631	541	340	156	-91	40	-23	-----	-----	-----	-----	-----	-----	-----	-----	0.883	0.115	1.00	Yes	0.878	0.122	1.00	Yes	1.00	**5.52**
		L_{20} - L_{21}			983.46	-876.54	-250	-1102	777	361	-40	-32	-120	-114	0.795	0.177	0.98	Yes	0.523	0.102	0.63	Yes	0.839	0.130	0.97	Yes	0.833	0.164	1.00	Yes	1.00	**9.22**
		L_{21} - L_{22}			848.83	-431.70	-268	-1960	298	241	-36	-191	-82	-5	0.686	0.313	1.00	Yes	0.460	0.189	0.65	Yes	0.413	0.254	0.67	Yes	0.410	0.292	0.71	Yes	1.00	**5.20**
		L_{22} - L_{23}			845.20	-362.03	-1915	-380	222	270	-245	187	35	-22	0.683	0.312	1.00	Yes	0.458	0.189	0.65	Yes	0.347	0.254	0.61	Yes	0.344	0.285	0.63	Yes	1.00	**5.15**
		L_{23} - L_{24}			975.05	-682.96	-1163	-630	301	544	292	-87	40	118	0.788	0.205	1.00	Yes	0.518	0.119	0.64	Yes	0.654	0.197	0.86	Yes	0.649	0.173	0.83	Yes	1.00	**8.42**
		L_{24} - L_{25}			-----	-647.86	-530	53	332	286	-212	465	73	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.123	1.00	Yes	0.863	0.102	0.97	Yes	1.00	**8.00**
		L_{25} - L_{26}			-----	-669.98	-341	53	146	533	144	-130	36	102	-----	-----	-----	-----	-----	-----	-----	-----	0.898	0.087	0.99	Yes	0.893	0.103	1.00	Yes	1.00	**7.29**
		L_{26} - L_{27}			-----	-849.79	-256	283	-454	657	-55	188	-209	133	-----	-----	-----	-----	-----	-----	-----	-----	0.898	0.069	0.97	Yes	0.892	0.105	1.00	Yes	1.00	**4.04**
		L_{27} - L_{28}			-----	-1155.32	-137	394	-309	1221	192	284	186	109	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.129	0.98	Yes	0.841	0.151	1.00	Yes	1.00	**3.63**
		L_{28} - L_{29}			-----	-1537.85	-26	-257	-123	-692	138	-38	-21	-25	-----	-----	-----	-----	-----	-----	-----	-----	0.928	0.069	1.00	Yes	0.920	0.069	0.99	Yes	1.00	**3.79**
		L_{29} - L_{30}			-----	-1531.54	-361	937	-904	2576	-91	-179	-72	-187	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.157	0.94	Yes	0.771	0.225	1.00	Yes	1.00	**3.02**
		L_{30} - L_{31}			-----	-1468.42	1178	-377	2935	-1014	-51	-45	-201	-84	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.181	0.93	Yes	0.739	0.256	1.00	Yes	1.00	**3.64**
		L_{31} - L_{32}			-----	-1488.04	-96	-382	-787	-203	14	60	-37	7	-----	-----	-----	-----	-----	-----	-----	-----	0.905	0.085	1.00	Yes	0.898	0.079	0.98	Yes	1.00	**4.84**
		L_{32} - L_{33}			-----	-1009.83	266	-337	1226	-507	146	59	49	-111	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.109	0.95	Yes	0.828	0.167	1.00	Yes	1.00	**4.45**
		L_{33} - L_{34}			427.92	-755.93	233	-619	417	228	168	-53	-33	-87	0.427	0.131	0.56	Yes	0.251	0.082	0.34	Yes	0.894	0.060	0.96	Yes	0.888	0.108	1.00	Yes	1.00	**5.62**
		L_{34} - L_{35}			880.24	-820.82	-209	-638	790	123	-2	347	-28	45	0.786	0.168	0.96	Yes	0.457	0.104	0.57	Yes	0.868	0.126	1.00	Yes	0.862	0.126	0.99	Yes	1.00	**7.46**
		L_{35} - L_{36}			1175.82	-----	131	-1093	477	90	219	-33	89	-63	0.822	0.168	1.00	Yes	0.554	0.105	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.05**
		L_{36} - L_{37}			1408.27	-----	-438	-1596	335	66	-91	106	-100	-4	0.807	0.185	1.00	Yes	0.530	0.108	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.81**
		L_{37} - L_{38}			1920.37	-----	-1765	-1885	189	-298	-94	-339	7	-41	0.813	0.187	1.00	Yes	0.540	0.110	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.20**
		L_{38} - L_{39}			1872.46	-----	-1816	-1009	-200	-152	-115	457	-21	-21	0.803	0.190	1.00	Yes	0.539	0.116	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.53**
		L_{39} - L_{40}			1763.33	-----	-1416	-1024	-148	-288	23	-534	-43	-32	0.822	0.170	1.00	Yes	0.544	0.102	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.15**
		L_{40} - L_{41}			1328.71	-----	-1409	-91	-251	-63	-589	145	-44	-10	0.781	0.212	1.00	Yes	0.526	0.133	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.42**
		L_{41} - L_{42}			1008.69	-----	-1213	237	-105	-83	-112	-191	-18	9	0.795	0.196	1.00	Yes	0.521	0.116	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.73**
		L_{42} - L_{43}			559.79	-----	-948	249	-107	-9	-119	421	13	-4	0.716	0.280	1.00	Yes	0.428	0.161	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.91**
		L_{43} - L_{44}			218.70	-473.04	-61	-17	-1567	539	-153	-45	640	187	0.266	0.424	0.69	Yes	0.158	0.270	0.43	Yes	0.680	0.268	0.95	Yes	0.676	0.319	1.00	Yes	1.00	**11.42**
	Structure 3	L_0 - L_1			439.86	-393.42	92	-349	580	-868	-30	-138	33	149	0.700	0.295	1.00	Yes	0.429	0.197	0.63	Yes	0.742	0.152	0.90	Yes	0.736	0.262	1.00	Yes	1.00	**9.61**
		L_1 - L_2			551.05	-----	236	-473	187	-198	-68	34	-25	24	0.843	0.156	1.00	Yes	0.570	0.097	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.87**
		L_2 - L_3			1018.85	-----	-44	-386	4	-169	236	255	9	-2	0.887	0.107	1.00	Yes	0.568	0.065	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.80**
		L_3 - L_4			1297.98	-----	117	-1184	57	-345	41	5	29	51	0.821	0.178	1.00	Yes	0.533	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.12**
		L_4 - L_5			1768.06	-----	-912	-958	-318	-208	-113	-175	75	107	0.864	0.128	1.00	Yes	0.554	0.075	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.81**
		L_5 - L_6			1547.25	-----	-294	-1880	-82	-346	-96	-137	141	78	0.756	0.236	1.00	Yes	0.491	0.143	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.89**
		L_6 - L_7			1280.33	-----	-1573	97	-403	240	-247	212	-184	19	0.753	0.237	1.00	Yes	0.488	0.145	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.25**
		L_7 - L_8			1113.02	-----	-531	-309	-67	150	167	4	-25	44	0.878	0.114	1.00	Yes	0.562	0.068	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.52**
		L_8 - L_9			536.48	-----	-891	340	-132	398	-321	374	-3	45	0.695	0.301	1.00	Yes	0.417	0.196	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.62**
		L_9 - L_{10}			-----	-540.11	-314	128	-487	634	248	115	163	128	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.090	0.93	Yes	0.823	0.168	1.00	Yes	1.00	**5.73**
		L_{10} - L_{11}			-----	-1149.30	-171	217	-314	440	33	-117	-54	-33	-----	-----	-----	-----	-----	-----	-----	-----	0.935	0.035	0.98	Yes	0.925	0.069	1.00	Yes	1.00	**5.12**
		L_{11} - L_{12}			-----	-1256.98	-40	474	-73	1245	-169	-208	-233	-401	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.186	1.00	Yes	0.796	0.165	0.97	Yes	1.00	**3.14**
		L_{12} - L_{13}			-----	-1240.87	470	-23	1305	-60	-239	-214	-451	-278	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.200	1.00	Yes	0.786	0.173	0.96	Yes	1.00	**3.20**
		L_{13} - L_{14}			-----	-1180.05	129	-21	102	29	-251	-26	-191	80	-----	-----	-----	-----	-----	-----	-----	-----	0.961	0.035	1.00	Yes	0.950	0.020	0.98	Yes	1.00	**4.32**
		L_{14} - L_{15}			-----	-750.09	330	-158	572	170	99	-133	142	-29	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.125	1.00	Yes	0.865	0.126	1.00	Yes	1.00	**3.50**
		L_{15} - L_{16}			-----	-552.55	332	-511	421	198	-84	-110	-4	-47	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.147	1.00	Yes	0.842	0.135	0.98	Yes	1.00	**3.15**
		L_{16} - L_{17}			695.01	-395.84	-699	-421	473	75	23	180	113	-69	0.800	0.198	1.00	Yes	0.475	0.127	0.61	Yes	0.541	0.149	0.69	Yes	0.536	0.169	0.71	Yes	1.00	**5.14**
		L_{17} - L_{18}			709.82	-269.43	-623	-595	205	52	174	-89	-3	18	0.817	0.178	1.00	Yes	0.472	0.107	0.58	Yes	0.368	0.204	0.58	Yes	0.365	0.150	0.52	Yes	1.00	**5.84**
		L_{18} - L_{19}			424.99	-----	-808	85	169	-40	-279	463	68	-173	0.650	0.342	1.00	Yes	0.397	0.226	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.31**
		L_{19} - L_{20}			143.33	-----	-223	132	-1488	884	1555	423	1338	364	0.219	0.780	1.00	Yes	0.129	0.468	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**28.19**

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
North Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-280.39	-43	70	-175	229	-64	-20	41	13	-----	-----	-----	-----	-----	-----	-----	-----	0.694	0.148	0.85	Yes	0.655	0.341	1.00	Yes	1.00	**2.71**
		$U_1 - L_1$	-----	-337.10	53	-43	-201	224	-13	-27	-82	6	-----	-----	-----	-----	-----	-----	-----	-----	0.737	0.102	0.84	Yes	0.713	0.286	1.00	Yes	1.00	**5.22**
		$U_2 - L_2$	159.09	-306.31	136	-153	-219	273	142	42	58	62	0.286	0.390	0.68	Yes	0.157	0.214	0.38	Yes	0.669	0.142	0.82	Yes	0.648	0.348	1.00	Yes	1.00	**7.74**
		$U_3 - L_3$	285.97	-----	224	-263	-256	298	342	102	201	141	0.514	0.480	1.00	Yes	0.283	0.264	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.25**
		$U_4 - L_4$	-----	-352.03	84	-84	194	-195	-343	-116	472	166	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.182	0.96	Yes	0.745	0.249	1.00	Yes	1.00	**5.04**
		$U_5 - L_5$	-----	-422.22	75	-91	241	-267	-60	-54	97	64	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.109	0.88	Yes	0.728	0.271	1.00	Yes	1.00	**3.29**
		$U_6 - L_6$	-----	-471.17	87	-86	212	-220	-86	-32	774	233	-----	-----	-----	-----	-----	-----	-----	-----	0.754	0.238	1.00	Yes	0.711	0.213	0.93	Yes	1.00	**2.71**
		$U_7 - L_7$	-----	-405.46	129	-144	276	-298	-155	32	171	60	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.143	0.87	Yes	0.661	0.330	1.00	Yes	1.00	**2.27**
		$U_8 - L_8$	-----	-1302.41	-14	9	-9	7	-102	5	563	119	-----	-----	-----	-----	-----	-----	-----	-----	0.940	0.054	1.00	Yes	0.903	0.003	0.91	Yes	1.00	**3.98**
		$U_9 - L_9$	-----	-632.70	-175	205	-400	456	-248	-99	-234	-172	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.132	0.91	Yes	0.732	0.266	1.00	Yes	1.00	**3.34**
		$U_{10} - L_{10}$	-----	-736.13	-124	106	-332	313	-711	-387	-554	-445	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.201	1.00	Yes	0.757	0.185	0.95	Yes	1.00	**4.03**
		$U_{11} - L_{11}$	-----	-662.08	-146	197	-386	489	-546	-376	-377	-372	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.170	0.97	Yes	0.771	0.227	1.00	Yes	1.00	**3.97**
		$U_{12} - L_{12}$	-----	-530.99	-126	121	-309	314	-330	-236	-109	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.150	0.92	Yes	0.729	0.269	1.00	Yes	1.00	**3.64**
		$U_{13} - L_{13}$	-----	-365.57	-81	100	-231	258	-174	-57	-2	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.133	0.88	Yes	0.700	0.295	1.00	Yes	1.00	**2.90**
		$U_{14} - L_{14}$	-----	-367.17	-58	67	-138	158	-269	-88	449	67	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.175	1.00	Yes	0.777	0.202	0.98	Yes	1.00	**5.79**
		$U_{15} - L_{15}$	89.71	-295.13	-64	61	271	-293	-67	-48	284	204	0.161	0.457	0.62	Yes	0.089	0.251	0.34	Yes	0.661	0.219	0.89	Yes	0.624	0.374	1.00	Yes	1.00	**7.23**
		$U_{16} - L_{16}$	-----	-305.17	24	-27	213	-225	-80	-100	1089	-54	-----	-----	-----	-----	-----	-----	-----	-----	0.688	0.303	1.00	Yes	0.646	0.288	0.94	Yes	1.00	**3.75**
		$U_{17} - L_{17}$	-----	-434.11	56	-71	220	-241	-120	-109	200	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.110	0.93	Yes	0.749	0.245	1.00	Yes	1.00	**3.05**
		$U_{18} - L_{18}$	-----	-537.11	137	-143	420	-438	-131	-114	215	-206	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.090	0.88	Yes	0.747	0.248	1.00	Yes	1.00	**3.36**
		$U_{19} - L_{19}$	-----	-631.77	163	-163	556	-536	-113	-43	249	-56	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.115	0.91	Yes	0.735	0.258	1.00	Yes	1.00	**3.83**
		$U_{20} - L_{20}$	-----	-559.42	159	-258	273	-461	22	3	528	69	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.219	1.00	Yes	0.685	0.221	0.91	Yes	1.00	**2.47**
	Structure 2	$U_0 - L_0$	-----	-660.24	-144	188	-456	561	-73	-12	28	5	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.119	0.95	Yes	0.740	0.253	1.00	Yes	1.00	**3.77**
		$U_1 - L_1$	-----	-724.50	-94	102	-478	512	-121	-28	-102	22	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.077	0.91	Yes	0.776	0.217	1.00	Yes	1.00	**4.77**
		$U_2 - L_2$	-----	-590.03	-82	93	-455	472	-95	-45	-9	-1	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.079	0.87	Yes	0.752	0.242	1.00	Yes	1.00	**4.15**
		$U_3 - L_3$	-----	-497.22	-41	49	-224	242	100	-46	-44	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.079	0.93	Yes	0.780	0.220	1.00	Yes	1.00	**3.64**
		$U_4 - L_4$	-----	-341.56	4	4	-203	210	284	85	-84	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.162	0.94	Yes	0.723	0.268	1.00	Yes	1.00	**3.82**
		$U_5 - L_5$	-----	-334.38	76	-71	-195	226	315	189	-48	-35	-----	-----	-----	-----	-----	-----	-----	-----	0.755	0.211	0.97	Yes	0.708	0.289	1.00	Yes	1.00	**5.38**
		$U_6 - L_6$	271.68	-----	173	-193	-301	314	364	254	164	-39	0.489	0.507	1.00	Yes	0.269	0.279	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.25**
		$U_7 - L_7$	-----	-371.78	70	-82	92	-101	-68	-17	445	27	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.158	1.00	Yes	0.787	0.129	0.92	Yes	1.00	**5.48**
		$U_8 - L_8$	-----	-456.16	115	-127	370	-388	-62	-112	126	-58	-----	-----	-----	-----	-----	-----	-----	-----	0.661	0.112	0.78	Yes	0.657	0.340	1.00	Yes	1.00	**4.54**
		$U_9 - L_9$	-----	-697.47	199	-199	549	-584	-105	-119	1384	171	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.201	0.98	Yes	0.747	0.248	1.00	Yes	1.00	**4.71**
		$U_{10} - L_{10}$	-----	-788.15	182	-191	549	-584	-94	-115	338	-171	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.101	0.88	Yes	0.737	0.258	1.00	Yes	1.00	**4.66**
		$U_{11} - L_{11}$	-----	-833.52	185	-184	468	-495	-160	-43	350	5	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.125	0.97	Yes	0.779	0.218	1.00	Yes	1.00	**3.84**
		$U_{12} - L_{12}$	-----	-894.01	146	-118	505	-487	-126	30	207	201	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.101	0.96	Yes	0.775	0.216	1.00	Yes	1.00	**3.93**
		$U_{13} - L_{13}$	-----	-736.03	212	-216	568	-550	-147	6	345	85	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.179	1.00	Yes	0.710	0.272	0.99	Yes	1.00	**3.46**
		$U_{14} - L_{14}$	-----	-1253.69	95	-92	179	-177	-41	224	475	298	-----	-----	-----	-----	-----	-----	-----	-----	0.917	0.077	1.00	Yes	0.831	0.032	0.87	Yes	1.00	**3.95**
		$U_{15} - L_{15}$	-----	-702.37	-76	89	-671	666	-315	34	-32	61	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.164	0.95	Yes	0.677	0.321	1.00	Yes	1.00	**5.61**
		$U_{16} - L_{16}$	-----	-702.64	-61	33	-464	414	-820	-248	-602	-241	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.184	1.00	Yes	0.753	0.197	0.95	Yes	1.00	**4.00**
		$U_{17} - L_{17}$	-----	-637.67	-118	108	-541	531	-482	-305	-298	-302	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.155	0.95	Yes	0.742	0.251	1.00	Yes	1.00	**3.55**
		$U_{18} - L_{18}$	-----	-602.89	-112	100	-410	435	-272	-245	68	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.118	0.93	Yes	0.768	0.223	1.00	Yes	1.00	**3.19**
		$U_{19} - L_{19}$	-----	-480.97	-73	71	-288	291	-246	-149	-123	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.724	0.121	0.85	Yes	0.718	0.280	1.00	Yes	1.00	**3.94**
		$U_{20} - L_{20}$	-----	-385.68	-42	40	-216	228	-236	-134	-20	-100	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.144	0.94	Yes	0.739	0.260	1.00	Yes	1.00	**4.07**
	Structure 3	$U_0 - L_0$	-----	-616.29	-134	181	-465	538	-59	-8	211	28	-----	-----	-----	-----	-----	-----	-----	-----	0.839	0.149	0.99	Yes	0.740	0.258	1.00	Yes	1.00	**4.35**
		$U_1 - L_1$	-----	-666.71	-104	116	-449	474	-121	-3	-21	127	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.081	0.92	Yes	0.776	0.220	1.00	Yes	1.00	**5.21**
		$U_2 - L_2$	-----	-541.38	-102	108	-403	421	-143	-44	19	25	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.088	0.89	Yes	0.753	0.239	1.00	Yes	1.00	**4.33**
		$U_3 - L_3$	-----	-446.53	-41	54	-196	218	49	-62	1	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.083	0.92	Yes	0.770	0.221	1.00	Yes	1.00	**3.69**
		$U_4 - L_4$	-----	-329.89	-11	16	-218	232	231	50	-42	14	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.147	0.90	Yes	0.698	0.297	1.00	Yes	1.00	**4.47**
		$U_5 - L_5$	-----	-308.33	47	-45	-247	268	229	155	-5	19	-----	-----	-----	-----	-----	-----	-----	-----	0.691	0.185	0.88	Yes	0.652	0.343	1.00	Yes	1.00	**5.87**
		$U_6 - L_6$	-----	-369.57	43	-49	105	-112	-9	5	477	66	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.173	1.00	Yes	0.782	0.143	0.93	Yes	1.00	**5.71**
		$U_7 - L_7$	-----	-360.80	69	-81	247	-268	-8	-83	86	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.729	0.107	0.84	Yes	0.691	0.306	1.00	Yes	1.00	**3.57**
		$U_8 - L_8$	-----	-511.13	111	-108	307	-317	-61	-120	1118	217	-----	-----	-----	-----	-----	-----	-----	-----	0.738	0.256	1.00	Yes	0.701	0.271	0.98	Yes	1.00	**3.68**
		$U_9 - L_9$	-----	-651.07	130	-168	415	-512	-180	-136	239	-72	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.120	0.91	Yes	0.758	0.238	1.00	Yes	1.00	**4.02**
		$U_{10} - L_{10}$	-----	-798.33	118	-115	390	-402	-199	-93	384	85	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.128	0.96	Yes	0.788	0.208	1.00	Yes	1.00	**4.45**
		$U_{11} - L_{11}$	-----	-642.18	168	-193	428	-487	-110	-11	360	134	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.146	0.92	Yes	0.725	0.271	1.00	Yes	1.00	**3.24**
		$U_{12} - L_{12}$	-----	-1243.97	69	-97	100	-168	-30	64	821	328	-----	-----	-----	-----	-----	-----	-----	-----	0.898	0.100	1.00	Yes	0.862	0.031	0.90	Yes	1.00	**4.15**
		$U_{13} - L_{13}$	-----	-446.01	-70	80	-293	316	-209	-1	-26	46	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.145	0.90	Yes	0.688	0.311	1.00	Yes	1.00	**3.87**
		$U_{14} - L_{14}$	-----	-520.84	-47	28	-223	213	-681	-310	-497	-262	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.209	1.00	Yes	0.747	0.195	0.95	Yes	1.00	**4.13**
		$U_{15} - L_{15}$	-----	-435.04	-48	52	-226	237	-244	-173	-311	-268	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.154	0.95	Yes	0.751	0.240	1.00	Yes	1.00	**3.68**
		$U_{16} - L_{16}$	-----	-350.28	-69	68	-190	197	-408	-255	172	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.194	0.97	Yes	0.741	0.251	1.00	Yes	1.00	**5.10**
		$U_{17} - L_{17}$	310.18	-----	-269	311	204	-223	-25	100	-46	140	0.558	0.438	1.00	Yes	0.307	0.241	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.20**
		$U_{18} - L_{18}$	142.86	-249.86	-131	147	153	-198	-149	22	1613	373	0.257	0.720	0.98	Yes	0.141	0.396	0.54	Yes	0.546	0.452	1.00	Yes	0.529	0.253	0.79	Yes	1.00	**5.76**
		$U_{19} - L_{19}$	84.67	-313.98	-87	72	261	-243	-91	20	254	52	0.152	0.408	0.57	Yes	0.084	0.224	0.31	Yes	0.686	0.144	0.83	Yes	0.664	0.334	1.00	Yes	1.00	**4.60**
		$U_{20} - L_{20}$	-----	-309.11	13	-15	61	-170	-74	-24	677	217	-----	-----	-----	-----	-----	-----	-----	-----	0.690	0.306	1.00	Yes	0.654	0.217	0.88	Yes	1.00	**2.67**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Diagonals	Structure 1	$U_0 - L_1$	625.74	-----	-126	73	-5	-11	-35	-93	16	48	0.821	0.170	1.00	Yes	0.496	0.094	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.88**
		$U_1 - L_2$	460.57	-168.27	-90	8	31	-25	-163	-119	34	20	0.828	0.162	1.00	Yes	0.456	0.089	0.55	Yes	0.386	0.149	0.54	Yes	0.356	0.115	0.48	Yes	1.00	**6.37**
		$U_2 - L_3$	-----	-334.72	-138	1	69	-35	-115	-125	75	55	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.222	1.00	Yes	0.708	0.177	0.89	Yes	1.00	**9.50**
		$U_3 - L_4$	-----	-323.23	-69	-112	11	-58	-153	-374	117	-90	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.257	1.00	Yes	0.684	0.143	0.83	Yes	1.00	**6.91**
		$U_4 - L_4$	568.98	-----	-85	41	-19	24	-302	-264	-38	-78	0.842	0.157	1.00	Yes	0.463	0.087	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.71**
		$U_5 - L_5$	621.74	-----	-152	258	-49	101	-638	-181	33	-33	0.735	0.263	1.00	Yes	0.404	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
		$U_5 - L_6$	653.64	-----	-280	280	-83	109	-107	-222	348	186	0.773	0.223	1.00	Yes	0.425	0.122	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.52**
		$U_6 - L_7$	638.50	-----	-98	315	6	142	-271	-168	340	227	0.755	0.241	1.00	Yes	0.415	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.76**
		$U_8 - L_8$	919.58	-----	28	424	21	144	586	342	347	99	0.735	0.264	1.00	Yes	0.455	0.148	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.28**
		$U_9 - L_{10}$	969.41	-----	-267	309	-78	89	627	545	172	131	0.775	0.217	1.00	Yes	0.480	0.123	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.12**
		$U_{10} - L_{11}$	963.84	-----	-185	254	-60	100	394	460	-20	167	0.814	0.178	1.00	Yes	0.504	0.100	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.64**
		$U_{11} - L_{12}$	838.76	-----	-229	151	-71	47	352	362	-10	137	0.830	0.161	1.00	Yes	0.456	0.088	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.32**
		$U_{12} - L_{13}$	645.20	-----	-202	172	-79	65	162	72	-34	-17	0.786	0.208	1.00	Yes	0.495	0.116	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_{13} - L_{14}$	458.78	-----	-106	30	-32	11	26	-59	-65	-112	0.825	0.168	1.00	Yes	0.454	0.093	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.65**
		$U_{15} - L_{14}$	-----	-214.96	-125	-90	40	-55	-881	-483	2	-20	-----	-----	-----	-----	-----	-----	-----	-----	0.504	0.494	1.00	Yes	0.455	0.159	0.62	Yes	1.00	**9.35**
		$U_{16} - L_{15}$	297.05	-----	-119	72	-11	-6	-1054	-212	-84	-81	0.534	0.457	1.00	Yes	0.294	0.251	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.15**
		$U_{17} - L_{16}$	490.24	-----	-138	89	-32	12	-576	-535	-105	-126	0.719	0.274	1.00	Yes	0.395	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.08**
		$U_{18} - L_{17}$	583.42	-----	-303	244	-109	73	-742	-523	-106	-113	0.690	0.306	1.00	Yes	0.379	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		$U_{19} - L_{18}$	642.42	-----	-338	249	-130	85	-757	-534	-60	-101	0.696	0.297	1.00	Yes	0.383	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.20**
		$U_{20} - L_{19}$	674.50	-----	-170	227	-94	91	-901	-378	-87	-35	0.731	0.265	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.53**
	Structure 2	$U_0 - L_1$	797.41	-----	-424	392	-96	81	-22	-70	-55	-29	0.789	0.207	1.00	Yes	0.434	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.99**
		$U_1 - L_2$	802.33	-----	-394	327	-72	51	-128	-43	-81	-6	0.794	0.202	1.00	Yes	0.437	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.08**
		$U_2 - L_3$	661.06	-----	-350	278	-62	45	-21	-18	1	111	0.782	0.218	1.00	Yes	0.430	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		$U_3 - L_4$	594.73	-----	-192	137	-24	4	-39	-46	135	75	0.793	0.203	1.00	Yes	0.436	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.15**
		$U_4 - L_5$	428.89	-----	-149	102	17	-25	-112	-13	105	-95	0.771	0.222	1.00	Yes	0.424	0.122	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.95**
		$U_5 - L_6$	427.92	-221.29	-139	61	67	-65	-72	3	12	-174	0.770	0.229	1.00	Yes	0.423	0.126	0.55	Yes	0.523	0.181	0.71	Yes	0.468	0.178	0.65	Yes	1.00	**7.13**
		$U_6 - L_7$	-----	-386.84	-113	-65	31	-109	-31	-198	125	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.164	1.00	Yes	0.741	0.129	0.88	Yes	1.00	**8.32**
		$U_8 - L_7$	524.04	-----	-227	70	-58	46	-630	-498	-142	-214	0.668	0.331	1.00	Yes	0.421	0.189	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.72**
		$U_8 - L_8$	608.52	-----	-309	195	-126	91	-1069	-455	-158	-170	0.659	0.334	1.00	Yes	0.363	0.184	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.39**
		$U_{10} - L_9$	757.95	-----	-320	202	-111	87	-614	-667	-110	-140	0.750	0.248	1.00	Yes	0.412	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.73**
		$U_{11} - L_{10}$	825.02	-----	-336	266	-105	135	-717	-543	143	14	0.752	0.241	1.00	Yes	0.413	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		$U_{12} - L_{11}$	874.01	-----	-342	365	-114	157	-334	-261	230	96	0.796	0.200	1.00	Yes	0.438	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.47**
		$U_{13} - L_{12}$	744.16	-----	-428	380	-143	146	-419	-240	375	157	0.736	0.261	1.00	Yes	0.405	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.00**
		$U_{14} - L_{13}$	722.19	-----	-265	416	-2	149	-565	-186	550	207	0.714	0.278	1.00	Yes	0.393	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.63**
		$U_{14} - L_{15}$	584.95	-----	-112	394	60	38	466	44	245	-62	0.692	0.308	1.00	Yes	0.380	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.69**
		$U_{15} - L_{16}$	629.16	-----	-374	358	-30	38	209	131	-66	-19	0.744	0.250	1.00	Yes	0.409	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.48**
		$U_{16} - L_{17}$	703.95	-----	-304	372	-38	80	40	242	-219	101	0.762	0.230	1.00	Yes	0.419	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.63**
		$U_{17} - L_{18}$	649.26	-----	-283	297	-48	80	185	327	-47	176	0.768	0.228	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		$U_{18} - L_{19}$	656.62	-----	-279	268	-23	78	322	254	86	114	0.776	0.216	1.00	Yes	0.427	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.59**
		$U_{19} - L_{20}$	595.99	-----	-206	173	-10	40	235	212	15	86	0.760	0.232	1.00	Yes	0.418	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.78**
		$U_{20} - L_{21}$	438.23	-----	-133	112	-11	24	128	50	-24	32	0.788	0.207	1.00	Yes	0.433	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.49**
		$U_{21} - L_{22}$	419.89	-----	-159	4	7	9	119	-13	-51	117	0.755	0.238	1.00	Yes	0.415	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.55**
		$U_{23} - L_{22}$	319.11	-----	-147	-29	-21	-54	-788	-445	-466	-143	0.574	0.416	1.00	Yes	0.316	0.229	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.58**
		$U_{24} - L_{23}$	335.02	-----	-110	85	-26	19	-885	-169	-286	-169	0.603	0.397	1.00	Yes	0.331	0.218	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.87**
		$U_{25} - L_{24}$	550.77	-----	-194	162	-17	65	-609	-599	194	92	0.702	0.297	1.00	Yes	0.386	0.170	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.20**
		$U_{26} - L_{25}$	614.74	-----	-269	251	-16	83	-621	-421	300	155	0.727	0.265	1.00	Yes	0.400	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.13**
		$U_{27} - L_{26}$	651.74	-----	-281	292	-39	81	-326	-242	261	119	0.771	0.224	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
		$U_{28} - L_{27}$	652.17	-----	-300	356	-38	85	-668	-107	410	240	0.706	0.292	1.00	Yes	0.389	0.160	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.36**
		$U_{29} - L_{28}$	623.90	-----	-361	347	-51	61	-154	-254	288	149	0.738	0.257	1.00	Yes	0.406	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.69**
		$U_{30} - L_{29}$	574.49	-----	-143	365	50	74	-139	-58	602	235	0.679	0.316	1.00	Yes	0.374	0.174	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.45**
		$U_{30} - L_{31}$	698.59	-----	-171	483	32	61	511	78	280	-21	0.691	0.300	1.00	Yes	0.380	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.68**
		$U_{31} - L_{32}$	726.82	-----	-414	384	-62	71	227	136	-45	18	0.755	0.242	1.00	Yes	0.415	0.124	0.54	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.30**
		$U_{32} - L_{33}$	871.45	-----	-339	362	-55	97	94	325	-184	131	0.794	0.198	1.00	Yes	0.437	0.109	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		$U_{33} - L_{34}$	861.25	-----	-357	286	-53	97	268	431	31	243	0.785	0.210	1.00	Yes	0.432	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.99**
		$U_{34} - L_{35}$	808.75	-----	-327	227	-69	78	263	204	104	92	0.800	0.191	1.00	Yes	0.440	0.105	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.96**
		$U_{35} - L_{36}$	730.58	-----	-351	242	-90	81	124	44	17	1	0.791	0.200	1.00	Yes	0.435	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.73**
		$U_{36} - L_{37}$	595.87	-----	-237	108	-48	44	-18	-73	-54	-107	0.760	0.234	1.00	Yes	0.478	0.130	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.70**
		$U_{38} - L_{37}$	-----	-363.88	8	-23	37	-91	-151	-128	-359	-92	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.208	1.00	Yes	0.697	0.104	0.81	Yes	1.00	**6.46**
		$U_{39} - L_{38}$	253.05	-197.76	-96	24	60	-56	-1435	-251	-32	-16	0.455	0.538	1.00	Yes	0.250	0.296	0.55	Yes	0.471	0.493	0.97	Yes	0.418	0.122	0.55	Yes	1.00	**6.27**
		$U_{40} - L_{39}$	370.33	-----	-137	87	26	-28	-498	-547	-37	-35	0.666	0.333	1.00	Yes	0.366	0.183	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.84**
		$U_{41} - L_{40}$	528.94	-----	-170	120	-8	-6	-637	-411	-71	-60	0.705	0.289	1.00	Yes	0.388	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_{42} - L_{41}$	587.14	-----	-311	252	-34	19	-686	-479	-46	-45	0.694	0.301	1.00	Yes	0.382	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.76**
		$U_{43} - L_{42}$	715.30	-----	-384	301	-50	31	-735	-540	12	-31	0.708	0.288	1.00	Yes	0.389	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.02**
		$U_{44} - L_{43}$	728.60	-----	-198	285	-87	70	-958	-303	82	-19	0.721	0.275	1.00	Yes	0.396	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.21**
	Structure 3	$U_0 - L_1$	700.42	-----	-422	339	-108	89	29	-132	-65	-53	0.759	0.238	1.00	Yes	0.417	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.16**
		$U_1 - L_2$	732.24	-----	-345	270	-92	60	-176	-75	-127	-45	0.793	0.205	1.00	Yes	0.436	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.48**
		$U_2 - L_3$	659.23	-----	-350	268	-88	55	-17	-4	-47	80	0.779	0.212	1.00	Yes	0.429	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.06**
		$U_3 - L_4$	557.56	-----	-161	111	-24	5	1	-31	77	48	0.818	0.181	1.00	Yes	0.450	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.53**
		$U_4 - L_5$	432.24	-----	-149	103	-2	-14	-94	-54	51	-107	0.777	0.221	1.00	Yes	0.428	0.121	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.70**
		$U_5 - L_6$	403.60	-208.86	-162	-61	39	-54	-150	-164	-37	-216	0.726	0.269	1.00	Yes	0.399	0.148	0.55	Yes	0.489	0.314	0.81	Yes	0.442	0.207	0.65	Yes	1.00	**9.74**
		$U_7 - L_6$	411.12	-----	-100	14	-26	7	-444	-366	-151	-197	0.739	0.256	1.00	Yes	0.407	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.11**
		$U_8 - L_7$	534.44	-----	-181	141	-70	49	-948	-373	-198	-183	0.651	0.343	1.00	Yes	0.410	0.198	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.45**
		$U_8 - L_8$	785.66	-----	-232	126	-70	38	-681	-713	-62	-136	0.777	0.214	1.00	Yes	0.427	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.01**
		$U_{10} - L_9$	953.43	-----	-205	232	-62	77	-631	-544	39	-57	0.805	0.190	1.00	Yes	0.499	0.108	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.57**
		$U_{11} - L_{10}$	993.09	-----	-281	306	-82	88	-475	-354	216	83	0.794	0.197	1.00	Yes	0.492	0.111	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.72**
		$U_{12} - L_{11}$	951.03	-----	-92	365	-3	129	-592	-343	211	140	0.760	0.238	1.00	Yes	0.471	0.134	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.86**
		$U_{12} - L_{13}$	622.96	-----	-19	366	38	84	259	10	199	-27	0.736	0.256	1.00	Yes	0.405	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.60**
		$U_{13} - L_{14}$	671.48	-----	-275	304	-18	67	172	154	-25	22	0.794	0.205	1.00	Yes	0.437	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.39**
		$U_{14} - L_{15}$	670.70	-----	-134	274	-22	67	108	253	-59	75	0.793	0.202	1.00	Yes	0.436	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.48**
		$U_{15} - L_{16}$	581.79	-----	-82	55	-10	26	145	241	6	95	0.853	0.139	1.00	Yes	0.469	0.077	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		$U_{17} - L_{16}$	-----	-334.15	-60	-105	16	-48	-406	-181	-109	110	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.230	1.00	Yes	0.707	0.135	0.85	Yes	1.00	**7.25**
		$U_{18} - L_{17}$	-----	-256.86	-80	-12	55	-29	-1071	-214	272	181	-----	-----	-----	-----	-----	-----	-----	-----	0.591	0.399	1.00	Yes	0.543	0.102	0.65	Yes	1.00	**5.96**
		$U_{19} - L_{18}$	382.29	-183.74	-102	21	36	-24	-614	-558	248	194	0.688	0.309	1.00	Yes	0.378	0.170	0.55	Yes	0.421	0.318	0.74	Yes	0.389	0.131	0.52	Yes	1.00	**4.86**
		$U_{20} - L_{19}$	582.76	-----	26	23	-15	-11	-802	-469	204	209	0.765	0.232	1.00	Yes	0.462	0.128	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.16**

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression											
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Upper Chord	Structure 1	$U_0 - U_1$			-----	-576.52	9	168	-358	-569	7	-71	300	-35	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.212	1	Yes	0.777	0.135	0.92	Yes	1.00	**10.08**
		$U_1 - U_2$			-----	-577.98	-40	174	-211	-634	-49	41	258	-167	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.209	1	Yes	0.779	0.151	0.94	Yes	1.00	**6.14**
		$U_2 - U_3$			259.28	-670.13	-48	370	-371	-259	-50	-89	297	-238	0.297	0.138	0.44	Yes	0.200	0.091	0.30	Yes	0.912	0.087	1	Yes	0.904	0.088	1.00	Yes	1.00	**6.10**
		$U_3 - U_4$			371.83	-554.14	124	298	-324	-767	-117	-96	20	-171	0.426	0.211	0.64	Yes	0.292	0.145	0.44	Yes	0.754	0.246	1	Yes	0.747	0.182	0.93	Yes	1.00	**5.36**
		$U_4 - U_5$			383.20	-562.18	139	296	-1007	-107	-216	-20	-87	-94	0.439	0.276	0.72	Yes	0.301	0.189	0.50	Yes	0.765	0.231	1	Yes	0.758	0.239	1.00	Yes	1.00	**5.49**
		$U_5 - U_6$			680.12	-----	276	454	-344	143	-294	18	-9	-647	0.780	0.217	1.00	Yes	0.526	0.144	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.07**
		$U_6 - U_7$			885.73	-----	343	206	-452	9	-360	147	-105	-103	0.847	0.146	1.00	Yes	0.592	0.100	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.95**
		$U_7 - U_8$			1000.95	-----	-419	1766	-62	684	-329	308	-243	174	0.694	0.301	1.00	Yes	0.484	0.205	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.49**
		$U_8 - U_9$			860.03	-----	1505	-497	618	-162	67	344	32	185	0.705	0.295	1.00	Yes	0.482	0.201	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.33**
		$U_9 - U_{10}$			741.56	-----	238	293	181	-492	43	440	391	506	0.804	0.192	1.00	Yes	0.545	0.128	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.13**
		$U_{10} - U_{11}$			-----	-619.33	328	-17	167	-898	218	121	414	139	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.194	1	Yes	0.790	0.201	1.00	Yes	1.00	**7.91**
		$U_{11} - U_{12}$			-----	-920.24	224	-100	26	-684	159	104	333	13	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.126	1	Yes	0.863	0.113	0.98	Yes	1.00	**5.60**
		$U_{12} - U_{13}$			-----	-1336.93	-3	-153	-170	-476	220	-27	363	-257	-----	-----	-----	-----	-----	-----	-----	-----	0.904	0.095	1	Yes	0.893	0.066	0.96	Yes	1.00	**5.66**
		$U_{13} - U_{14}$			-----	-1359.91	-112	-357	-433	-1675	151	60	178	-5	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.211	1	Yes	0.780	0.185	0.97	Yes	1.00	**4.28**
		$U_{14} - U_{15}$			-----	-1353.84	-253	-187	-1571	-583	182	-56	266	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.215	1	Yes	0.776	0.173	0.95	Yes	1.00	**4.24**
		$U_{15} - U_{16}$			-----	-1463.33	-60	-414	-449	-990	19	-62	187	-556	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.147	1	Yes	0.839	0.109	0.95	Yes	1.00	**5.02**
		$U_{16} - U_{17}$			-----	-1419.26	-314	-186	-1270	-458	48	-171	179	-236	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.171	1	Yes	0.814	0.140	0.96	Yes	1.00	**5.37**
		$U_{17} - U_{18}$			-----	-1078.86	-160	-107	-621	16	-153	-213	-140	-417	-----	-----	-----	-----	-----	-----	-----	-----	0.855	0.139	1	Yes	0.844	0.101	0.95	Yes	1.00	**5.24**
		$U_{18} - U_{19}$			-----	-723.56	-192	-30	-651	38	-174	-162	-218	-313	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.170	1	Yes	0.814	0.131	0.95	Yes	1.00	**5.22**
		$U_{19} - U_{20}$			-----	-651.94	-154	-55	-1297	341	-103	10	116	-503	-----	-----	-----	-----	-----	-----	-----	-----	0.740	0.255	1	Yes	0.733	0.261	1.00	Yes	1.00	**13.19**
	Structure 2	$U_0 - U_1$			-----	-652.61	161	-50	-26	-1308	105	191	297	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.197	0.98	Yes	0.771	0.222	1.00	Yes	1.00	**9.72**
		$U_1 - U_2$			-----	-811.99	-109	-101	-92	-844	347	685	285	-120	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.205	1	Yes	0.784	0.128	0.92	Yes	1.00	**4.96**
		$U_2 - U_3$			-----	-1180.80	-85	-165	-218	-1116	633	-10	149	20	-----	-----	-----	-----	-----	-----	-----	-----	0.843	0.152	1	Yes	0.838	0.114	0.96	Yes	1.00	**5.15**
		$U_3 - U_4$			-----	-1446.63	-341	-234	-912	-1129	97	-347	434	342	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.165	1	Yes	0.824	0.101	0.93	Yes	1.00	**4.86**
		$U_4 - U_5$			-----	-1557.24	-334	-260	-1010	-1469	-112	-392	586	34	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.191	1	Yes	0.800	0.122	0.93	Yes	1.00	**4.68**
		$U_5 - U_6$			-----	-1635.77	-330	111	-1282	-563	-155	-329	584	-3	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.153	1	Yes	0.840	0.106	0.95	Yes	1.00	**4.82**
		$U_6 - U_7$			-----	-1372.65	-215	-31	-856	-1495	-113	-277	-5	-405	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.204	1	Yes	0.782	0.133	0.92	Yes	1.00	**3.95**
		$U_7 - U_8$			-----	-1377.40	-124	-153	-1581	-744	-207	-232	-145	-338	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.203	1	Yes	0.784	0.141	0.93	Yes	1.00	**3.99**
		$U_8 - U_9$			-----	-1265.71	-234	174	-792	-567	-273	-196	29	-525	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.131	1	Yes	0.858	0.084	0.95	Yes	1.00	**4.44**
		$U_9 - U_{10}$			-----	-948.61	-31	348	-1347	-117	-318	-140	138	-131	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.173	1	Yes	0.819	0.164	0.99	Yes	1.00	**4.45**
		$U_{10} - U_{11}$			731.81	-837.17	247	509	-980	-119	-202	-38	-221	-385	0.618	0.185	0.81	Yes	0.421	0.121	0.55	Yes	0.837	0.159	1	Yes	0.832	0.138	0.98	Yes	1.00	**7.21**
		$U_{11} - U_{12}$			914.97	-----	250	567	-1033	372	-382	-156	-304	-624	0.773	0.222	1.00	Yes	0.519	0.148	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.74**
		$U_{12} - U_{13}$			1211.21	-----	151	-123	-528	-321	-1151	-592	-822	-735	0.818	0.176	1.00	Yes	0.583	0.123	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.09**
		$U_{13} - U_{14}$			1252.95	-----	-913	3654	-339	1646	-637	43	-457	-25	0.616	0.382	1.00	Yes	0.436	0.250	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.23**
		$U_{14} - U_{15}$			1295.31	-----	3481	-524	1551	-121	-139	456	-120	241	0.637	0.353	1.00	Yes	0.451	0.231	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.08**
		$U_{15} - U_{16}$			1469.09	-----	-90	23	-33	93	492	1179	180	511	0.888	0.110	1.00	Yes	0.632	0.078	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.73**
		$U_{16} - U_{17}$			1143.05	-----	627	456	443	-677	184	292	638	410	0.842	0.152	1.00	Yes	0.560	0.100	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.24**
		$U_{17} - U_{18}$			835.45	-----	472	423	268	-648	-26	166	325	300	0.839	0.158	1.00	Yes	0.558	0.104	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.72**
		$U_{18} - U_{19}$			794.33	-----	570	475	159	-820	-109	69	394	120	0.797	0.197	1.00	Yes	0.523	0.126	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.66**
		$U_{19} - U_{20}$			553.79	-757.89	423	306	-274	-713	-99	167	384	246	0.519	0.166	0.69	Yes	0.344	0.109	0.46	Yes	0.841	0.154	1	Yes	0.836	0.114	0.96	Yes	1.00	**6.88**
		$U_{20} - U_{21}$			466.34	-975.39	241	270	-190	-539	11	33	274	-328	0.362	0.114	0.48	Yes	0.253	0.075	0.33	Yes	0.897	0.100	1	Yes	0.890	0.078	0.97	Yes	1.00	**6.58**
		$U_{21} - U_{22}$			-----	-827.33	98	108	-513	-1346	-34	47	75	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.761	0.230	1	Yes	0.755	0.195	0.95	Yes	1.00	**4.57**
		$U_{22} - U_{23}$			-----	-825.90	125	94	-1351	-519	-43	-22	90	-131	-----	-----	-----	-----	-----	-----	-----	-----	0.759	0.236	1	Yes	0.754	0.196	0.95	Yes	1.00	**4.57**
		$U_{23} - U_{24}$			-----	-910.38	249	168	-473	-601	-213	-1	25	-559	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.163	1	Yes	0.831	0.087	0.92	Yes	1.00	**5.83**
		$U_{24} - U_{25}$			430.69	-757.39	233	319	-880	-211	-207	44	89	-146	0.404	0.169	0.58	Yes	0.268	0.111	0.38	Yes	0.841	0.154	1	Yes	0.836	0.141	0.98	Yes	1.00	**5.87**
		$U_{25} - U_{26}$			746.34	-684.90	453	518	-874	337	-263	146	-166	-262	0.749	0.187	0.94	Yes	0.492	0.119	0.62	Yes	0.814	0.178	1	Yes	0.809	0.148	0.96	Yes	1.00	**8.85**
		$U_{26} - U_{27}$			835.48	-----	428	446	-730	336	-213	118	-176	-254	0.839	0.161	1.00	Yes	0.558	0.107	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.76**
		$U_{27} - U_{28}$			1019.00	-----	-338	1160	-687	528	-613	-925	-329	-509	0.751	0.243	1.00	Yes	0.500	0.160	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.15**
		$U_{28} - U_{29}$			1472.86	-----	-219	-111	12	-48	-944	-325	-308	-97	0.890	0.105	1.00	Yes	0.633	0.073	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.31**
		$U_{29} - U_{30}$			1282.95	-----	-610	3583	-159	1505	-473	241	-256	187	0.631	0.364	1.00	Yes	0.447	0.238	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.27**
		$U_{30} - U_{31}$			1259.11	-----	3610	-857	1501	-257	60	537	118	334	0.619	0.371	1.00	Yes	0.438	0.243	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.38**
		$U_{31} - U_{32}$			1206.04	-----	-202	94	-358	-553	535	1133	771	1020	0.814	0.178	1.00	Yes	0.581	0.124	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.87**
		$U_{32} - U_{33}$			929.96	-----	565	297	273	-867	310	300	730	385	0.786	0.211	1.00	Yes	0.528	0.141	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.44**
		$U_{33} - U_{34}$			843.76	-813.66	550	355	-190	-1056	101	248	527	302	0.713	0.213	0.93	Yes	0.485	0.139	0.63	Yes	0.814	0.178	1	Yes	0.809	0.149	0.96	Yes	1.00	**7.59**
		$U_{34} - U_{35}$			-----	-980.87	465	76	-196	-1175	105	39	384	-13	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.143	1	Yes	0.846	0.143	0.99	Yes	1.00	**5.40**
		$U_{35} - U_{36}$			-----	-1259.70	244	-190	-448	-819	93	130	549	110	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.130	1	Yes	0.854	0.087	0.95	Yes	1.00	**4.97**
		$U_{36} - U_{37}$			-----	-1413.95	-74	6	-698	-1607	165	-24	215	-223	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.187	1	Yes	0.805	0.143	0.95	Yes	1.00	**4.41**
		$U_{37} - U_{38}$			-----	-1406.01	116	-178	-1440	-759	21	38	72	-223	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.190	1	Yes	0.801	0.128	0.93	Yes	1.00	**4.36**
		$U_{38} - U_{39}$			-----	-1613.70	128	-360	-426	-1709	88	-81	286	-444	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.165	1	Yes	0.829	0.142	0.98	Yes	1.00	**4.80**
		$U_{39} - U_{40}$			-----	-1517.60	-273	-453	-1934	-875	-114	-119	221	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.213	1	Yes	0.779	0.160	0.94	Yes	1.00	**4.42**
		$U_{40} - U_{41}$			-----	-1479.08	-344	-410	-942	-858	-90	-97	-200	-417	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.150	1	Yes	0.842	0.084	0.93	Yes	1.00	**5.14**
		$U_{41} - U_{42}$			-----	-1177.86	-216	-192	-1174	-130	-73	103	-157	-381	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.156	1	Yes	0.836	0.120	0.96	Yes	1.00	**5.32**
		$U_{42} - U_{43}$			-----	-860.96	-227	-57	-858	-43	189	-9	-234	-376	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.161	1	Yes	0.831	0.130	0.97	Yes	1.00	**5.88**
		$U_{43} - U_{44}$			-----	-619.12	-26	-236	-1365	276	-8	20	-93	-390	-----	-----	-----	-----	-----	-----	-----	-----	0.736	0.264	1	Yes	0.731	0.232	0.97	Yes	1.00	**10.16**
	Structure 3	$U_0 - U_1$			-----	-664.63	158	-138	35	-1217	63	122	423	-146	-----	-----	-----	-----	-----	-----	-----	-----	0.755	0.211	0.97	Yes	0.748	0.245	1.00	Yes	1.00	**12.89**
		$U_1 - U_2$			-----	-703.71	-68	-105	-13	-617	249	510	316	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.191	1	Yes	0.792	0.124	0.92	Yes	1.00	**5.20**
		$U_2 - U_3$			-----	-1075.33	-81	-109	-77	-633	517	2	242	37	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.144	1	Yes	0.841	0.103	0.95	Yes	1.00	**5.75**
		$U_3 - U_4$			-----	-1435.97	-141	-193	-502	-1089	124	-247	487	332	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.167	1	Yes	0.823	0.120	0.95	Yes	1.00	**6.19**
		$U_4 - U_5$			-----	-1536.50	-317	-24	-616	-473	-26	-320	185	-574	-----	-----	-----	-----	-----	-----	-----	-----	0.890	0.109	1	Yes	0.881	0.068	0.95	Yes	1.00	**5.80**
		$U_5 - U_6$			-----	-1334.33	-157	-235	-561	-1607	-44	-203	-9	-235	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.218	1	Yes	0.765	0.177	0.95	Yes	1.00	**4.31**
		$U_6 - U_7$			-----	-1343.44	-316	-92	-1705	-420	-81	-230	38	-198	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.216	1	Yes	0.770	0.188	0.96	Yes	1.00	**4.38**
		$U_7 - U_8$			-----	-1323.62	-117	-20	-473	-166	-233	-222	82	-290	-----	-----	-----	-----	-----	-----	-----	-----	0.895	0.101	1	Yes	0.884	0.065	0.95	Yes	1.00	**5.68**
		$U_8 - U_9$			-----	-907.44	-118	197	-841	-1	-99	-108	85	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.136	1	Yes	0.851	0.140	1.00	Yes	1.00	**4.83**
		$U_9 - U_{10}$			-----	-612.42	-41	290	-890	249	-225	-120	-221	-379	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.203	1	Yes	0.781	0.199	0.99	Yes	1.00	**6.89**
		$U_{10} - U_{11}$			737.16	-----	279	234	-481	240	-356	2	-542	-411	0.800	0.195	1.00	Yes	0.542	0.131	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.31**
		$U_{11} - U_{12}$			837.07	-----	-529	1520	-178	612	-455	-25	-295	9	0.686	0.311	1.00	Yes	0.469	0.211	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.37**
		$U_{12} - U_{13}$			1013.60	-----	1744	-388	646	-45	-285	188	-147	55	0.702	0.293	1.00	Yes	0.490	0.200	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		$U_{13} - U_{14}$			892.58	-----	198	367	-21	-272	-171	412	250	477	0.854	0.144	1.00	Yes	0.597	0.099	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.10**
		$U_{14} - U_{15}$			716.84	-----	465	294	350	-345	31	186	379	-143	0.822	0.175	1.00	Yes	0.554	0.115	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.56**
		$U_{15} - U_{16}$			383.00	-572.24	309	167	-123	-959	-21	158	108	115	0.439	0.255	0.70	Yes	0.301	0.175	0.48	Yes	0.779	0.213	1	Yes	0.772	0.228	1.00	Yes	1.00	**5.58**
		$U_{16} - U_{17}$			383.98	-586.35	346	108	-776	-345	20	89	201	-11	0.440	0.218	0.66	Yes	0.302	0.150	0.46	Yes	0.798	0.193	1	Yes	0.791	0.184	0.98	Yes	1.00	**5.67**
		$U_{17} - U_{18}$			217.49	-618.77	338	-107	-211	-619	-81	230	95	-350	0.249	0.206	0.46	Yes	0.168	0.135	0.31	Yes	0.842	0.149	1	Yes	0.834	0.147	0.99	Yes	1.00	**5.56**
		$U_{18} - U_{19}$			-----	-575.33	100	-19	-764	-180	216	55	207	5	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.215	1	Yes	0.776	0.182	0.96	Yes	1.00	**5.16**
		$U_{19} - U_{20}$			-----	-616.16	226	-304	-686	70	-22	47	220	-308	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.150	0.99	Yes	0.831	0.163	1.00	Yes	1.00	**10.06**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Lower Chord	Structure 1	L_0 - L_1			128.01	-----	1063	-1465	686	-1029	-460	-1691	-235	-862	0.196	0.803	1.00	Yes	0.115	0.481	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**33.89**
		L_1 - L_2			444.63	-----	-38	-685	37	87	-495	227	53	1	0.680	0.312	1.00	Yes	0.415	0.205	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.72**
		L_2 - L_3			706.57	-----	-607	-557	26	172	198	-164	1	-17	0.813	0.178	1.00	Yes	0.470	0.107	0.58	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.09**
		L_3 - L_4			655.25	-293.54	-310	-937	83	327	-121	88	-18	-2	0.754	0.246	1.00	Yes	0.448	0.159	0.61	Yes	0.401	0.224	0.63	Yes	0.397	0.226	0.63	Yes	1.00	**6.68**
		L_4 - L_5			-----	-537.00	-675	285	103	495	-197	16	172	-109	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.144	0.97	Yes	0.818	0.179	1.00	Yes	1.00	**5.31**
		L_5 - L_6			-----	-738.15	-284	197	145	569	199	154	29	95	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.136	1	Yes	0.852	0.126	0.98	Yes	1.00	**5.38**
		L_6 - L_7			-----	-1206.03	-54	102	-134	122	117	-42	156	-6	-----	-----	-----	-----	-----	-----	-----	-----	0.982	0.018	1	Yes	0.971	0.021	1.00	Yes	1.00	**6.15**
		L_7 - L_8			-----	-1255.10	-33	584	-99	1466	41	72	107	156	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.194	1	Yes	0.795	0.194	0.99	Yes	1.00	**4.04**
		L_8 - L_9			-----	-1270.39	554	-47	1384	-101	38	-14	123	54	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.178	1	Yes	0.805	0.183	0.99	Yes	1.00	**4.17**
		L_9 - L_{10}			-----	-1172.57	195	-165	311	-251	25	9	187	64	-----	-----	-----	-----	-----	-----	-----	-----	0.954	0.033	0.99	Yes	0.944	0.049	1.00	Yes	1.00	**7.15**
		L_{10} - L_{11}			-----	-542.44	236	-518	646	-363	18	-141	96	87	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.090	0.93	Yes	0.826	0.171	1.00	Yes	1.00	**6.94**
		L_{11} - L_{12}			589.45	-----	263	-751	389	-166	-186	174	-15	8	0.763	0.231	1.00	Yes	0.458	0.151	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.01**
		L_{12} - L_{13}			1134.01	-----	-299	-470	110	-77	7	-180	-16	-35	0.895	0.104	1.00	Yes	0.572	0.063	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.36**
		L_{13} - L_{14}			1271.04	-----	227	-1613	231	-391	-250	119	-105	61	0.748	0.243	1.00	Yes	0.484	0.149	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.63**
		L_{14} - L_{15}			1612.53	-----	-1556	-500	-344	-81	-314	113	-68	-51	0.788	0.210	1.00	Yes	0.512	0.127	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.34**
		L_{15} - L_{16}			1699.42	-----	-956	-1165	-185	-390	319	227	-79	10	0.830	0.163	1.00	Yes	0.533	0.096	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.78**
		L_{16} - L_{17}			1251.12	-----	-1218	74	-393	33	-258	-77	-35	-63	0.791	0.202	1.00	Yes	0.513	0.124	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.41**
		L_{17} - L_{18}			941.69	-----	-712	145	-176	-64	-228	-317	-5	24	0.820	0.178	1.00	Yes	0.525	0.107	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.82**
		L_{18} - L_{19}			498.09	-----	-625	288	-251	183	-29	-236	10	-2	0.762	0.237	1.00	Yes	0.516	0.149	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.71**
		L_{19} - L_{20}			261.40	-----	-1105	487	-1588	924	-69	-15	572	128	0.400	0.595	1.00	Yes	0.244	0.397	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**21.81**
	Structure 2	L_0 - L_1			68.56	-----	1057	-2593	582	-1693	-359	-1245	-177	-615	0.103	0.889	1.00	Yes	0.063	0.444	0.51	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**25.55**
		L_1 - L_2			569.19	-----	419	-1160	132	-129	-412	240	82	84	0.691	0.304	1.00	Yes	0.411	0.194	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.94**
		L_2 - L_3			1068.23	-----	-81	-884	-28	-93	252	-81	115	174	0.842	0.155	1.00	Yes	0.552	0.093	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.35**
		L_3 - L_4			1412.30	-----	-53	-1292	43	-256	-163	183	50	128	0.830	0.166	1.00	Yes	0.559	0.103	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.65**
		L_4 - L_5			1846.21	-----	-1046	-1294	-206	-158	236	-83	15	-13	0.861	0.138	1.00	Yes	0.570	0.082	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.01**
		L_5 - L_6			1938.63	-----	-794	-1605	-10	-245	-355	177	-92	56	0.832	0.165	1.00	Yes	0.558	0.101	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.53**
		L_6 - L_7			1956.80	-----	-1687	-1620	-302	-5	256	21	55	-33	0.828	0.164	1.00	Yes	0.550	0.096	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.29**
		L_7 - L_8			1357.80	-----	-1483	-442	-147	301	-599	-242	-60	80	0.779	0.213	1.00	Yes	0.511	0.127	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.22**
		L_8 - L_9			1118.00	-----	-1029	-48	-73	536	196	827	49	-141	0.782	0.217	1.00	Yes	0.527	0.138	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.84**
		L_9 - L_{10}			784.21	-742.95	-1322	166	-21	705	372	-140	-42	6	0.700	0.256	0.96	Yes	0.408	0.159	0.57	Yes	0.785	0.162	0.95	Yes	0.780	0.211	1.00	Yes	1.00	**7.42**
		L_{10} - L_{11}			-----	-730.05	-764	489	36	567	-209	-141	126	-47	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.103	0.97	Yes	0.858	0.134	1.00	Yes	1.00	**5.11**
		L_{11} - L_{12}			-----	-1003.68	-522	695	-684	1285	-328	-237	-26	19	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.124	0.96	Yes	0.823	0.175	1.00	Yes	1.00	**4.88**
		L_{12} - L_{13}			-----	-1480.86	-264	-266	-425	-844	64	-73	43	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.893	0.105	1	Yes	0.886	0.084	0.97	Yes	1.00	**5.26**
		L_{13} - L_{14}			-----	-1463.36	-488	1434	-1077	2959	-78	-111	-60	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.176	0.92	Yes	0.736	0.258	1.00	Yes	1.00	**3.50**
		L_{14} - L_{15}			-----	-1473.27	1394	-536	2880	-1115	-128	-109	-80	-76	-----	-----	-----	-----	-----	-----	-----	-----	0.748	0.169	0.92	Yes	0.741	0.251	1.00	Yes	1.00	**3.37**
		L_{15} - L_{16}			-----	-1484.71	-431	-54	-1031	-118	-66	-36	-13	-25	-----	-----	-----	-----	-----	-----	-----	-----	0.895	0.097	1	Yes	0.888	0.102	1.00	Yes	1.00	**4.69**
		L_{16} - L_{17}			-----	-1134.20	612	-64	1395	-273	22	-4	41	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.132	0.97	Yes	0.826	0.172	1.00	Yes	1.00	**4.41**
		L_{17} - L_{18}			-----	-836.75	430	-389	734	-359	-106	77	127	153	-----	-----	-----	-----	-----	-----	-----	-----	0.885	0.091	0.98	Yes	0.879	0.117	1.00	Yes	1.00	**5.29**
		L_{18} - L_{19}			-----	-663.68	279	-436	589	146	105	-66	-13	-52	-----	-----	-----	-----	-----	-----	-----	-----	0.890	0.093	0.99	Yes	0.885	0.114	1.00	Yes	1.00	**5.38**
		L_{19} - L_{20}			-----	-647.91	201	-668	478	281	-170	142	-71	-21	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.110	0.98	Yes	0.863	0.129	1.00	Yes	1.00	**6.59**
		L_{20} - L_{21}			1057.87	-811.96	-536	-893	591	257	9	-204	14	-65	0.844	0.152	1.00	Yes	0.553	0.091	0.65	Yes	0.767	0.126	0.9	Yes	0.762	0.130	0.90	Yes	1.00	**9.49**
		L_{21} - L_{22}			919.93	-495.21	-351	-1551	307	107	-257	317	-44	-37	0.734	0.260	1.00	Yes	0.491	0.164	0.66	Yes	0.468	0.195	0.67	Yes	0.465	0.226	0.70	Yes	1.00	**6.58**
		L_{22} - L_{23}			937.80	-----	-1523	-563	123	261	-264	115	82	-65	0.748	0.251	1.00	Yes	0.500	0.157	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.74**
		L_{23} - L_{24}			998.61	-706.50	-1092	-612	194	425	382	278	27	63	0.796	0.201	1.00	Yes	0.522	0.121	0.65	Yes	0.667	0.192	0.86	Yes	0.663	0.159	0.83	Yes	1.00	**8.91**
		L_{24} - L_{25}			426.77	-628.65	-833	217	210	465	-164	34	134	-134	0.483	0.186	0.67	Yes	0.286	0.118	0.41	Yes	0.843	0.118	0.97	Yes	0.838	0.161	1.00	Yes	1.00	**6.96**
		L_{25} - L_{26}			-----	-665.27	-547	384	132	543	3	71	18	74	-----	-----	-----	-----	-----	-----	-----	-----	0.892	0.084	0.98	Yes	0.887	0.106	1.00	Yes	1.00	**6.09**
		L_{26} - L_{27}			-----	-817.85	-363	422	-704	855	28	-171	86	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.078	0.95	Yes	0.859	0.137	1.00	Yes	1.00	**6.23**
		L_{27} - L_{28}			-----	-1126.78	-98	535	-351	1406	29	109	65	145	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.134	0.97	Yes	0.821	0.173	1.00	Yes	1.00	**4.91**
		L_{28} - L_{29}			-----	-1472.47	-130	-364	-242	-1017	121	16	170	7	-----	-----	-----	-----	-----	-----	-----	-----	0.888	0.109	1	Yes	0.881	0.101	0.99	Yes	1.00	**4.97**
		L_{29} - L_{30}			-----	-1467.16	-484	1307	-1113	2902	21	13	15	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.164	0.91	Yes	0.738	0.253	1.00	Yes	1.00	**3.60**
		L_{30} - L_{31}			-----	-1465.48	1336	-472	2988	-1104	-6	-18	-42	-44	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.173	0.92	Yes	0.737	0.261	1.00	Yes	1.00	**3.65**
		L_{31} - L_{32}			-----	-1485.85	-295	-164	-915	-333	5	15	-5	-17	-----	-----	-----	-----	-----	-----	-----	-----	0.896	0.099	1	Yes	0.889	0.091	0.98	Yes	1.00	**5.35**
		L_{32} - L_{33}			-----	-1006.22	621	-570	1275	-488	78	-29	165	-109	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.120	0.96	Yes	0.825	0.174	1.00	Yes	1.00	**4.84**
		L_{33} - L_{34}			-----	-741.00	465	-720	535	117	-22	190	1	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.103	0.98	Yes	0.870	0.126	1.00	Yes	1.00	**5.03**
		L_{34} - L_{35}			796.89	-787.21	26	-1068	777	23	181	-142	3	-52	0.711	0.193	0.91	Yes	0.414	0.120	0.54	Yes	0.832	0.105	0.94	Yes	0.827	0.171	1.00	Yes	1.00	**7.45**
		L_{35} - L_{36}			1164.96	-----	95	-991	576	2	-441	246	-78	0	0.815	0.175	1.00	Yes	0.549	0.110	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.59**
		L_{36} - L_{37}			1409.13	-----	-437	-1501	410	-6	305	34	13	-18	0.808	0.191	1.00	Yes	0.531	0.113	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.76**
		L_{37} - L_{38}			1903.69	-----	-1519	-1661	112	-368	-723	-181	-47	47	0.806	0.191	1.00	Yes	0.535	0.114	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.43**
		L_{38} - L_{39}			1854.89	-----	-1658	-1163	-289	-53	287	853	-5	-67	0.796	0.200	1.00	Yes	0.534	0.125	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.39**
		L_{39} - L_{40}			1756.88	-----	-1607	-768	-197	-377	359	-122	-61	-6	0.819	0.176	1.00	Yes	0.542	0.105	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.14**
		L_{40} - L_{41}			1415.19	-----	-1214	-84	-344	3	-288	-146	-1	3	0.831	0.165	1.00	Yes	0.560	0.102	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.60**
		L_{41} - L_{42}			1038.78	-----	-1038	114	-139	-129	-258	-293	80	192	0.819	0.181	1.00	Yes	0.537	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.81**
		L_{42} - L_{43}			575.06	-----	-1213	393	-249	139	-163	283	245	115	0.698	0.293	1.00	Yes	0.415	0.188	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.08**
		L_{43} - L_{44}			216.23	-----	-2254	715	-2673	897	-898	-262	1142	333	0.263	0.731	1.00	Yes	0.156	0.465	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**36.00**
	Structure 3	L_0 - L_1			66.92	-----	-29	-21	1350	-2367	5	24	-189	-857	0.102	0.888	1.00	Yes	0.062	0.593	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**36.98**
		L_1 - L_2			450.40	-----	385	-802	147	-165	-289	297	36	60	0.689	0.302	1.00	Yes	0.466	0.190	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.99**
		L_2 - L_3			959.31	-----	-12	-627	-26	-135	305	-44	86	128	0.835	0.160	1.00	Yes	0.535	0.097	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.51**
		L_3 - L_4			1288.17	-----	18	-1106	41	-295	-175	196	30	121	0.815	0.180	1.00	Yes	0.528	0.111	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.59**
		L_4 - L_5			1762.36	-----	-1069	-792	-269	-126	88	-136	28	14	0.861	0.138	1.00	Yes	0.553	0.081	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.47**
		L_5 - L_6			1590.83	-----	-348	-1627	-35	-311	-227	376	-62	137	0.777	0.223	1.00	Yes	0.505	0.135	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.45**
		L_6 - L_7			1331.76	-----	-1423	-6	-343	214	-222	177	5	-35	0.783	0.215	1.00	Yes	0.507	0.131	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.22**
		L_7 - L_8			1087.52	-----	-548	-342	-78	75	337	329	-30	52	0.858	0.137	1.00	Yes	0.549	0.083	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.86**
		L_8 - L_9			575.46	-----	-859	333	-176	399	-145	-21	72	-86	0.745	0.253	1.00	Yes	0.447	0.166	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.10**
		L_9 - L_{10}			-----	-538.61	-612	334	-446	677	-39	8	-52	-13	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.078	0.91	Yes	0.821	0.179	1.00	Yes	1.00	**7.48**
		L_{10} - L_{11}			-----	-1169.76	-192	194	-300	326	74	-128	9	-295	-----	-----	-----	-----	-----	-----	-----	-----	0.958	0.030	0.99	Yes	0.947	0.052	1.00	Yes	1.00	**7.47**
		L_{11} - L_{12}			-----	-1264.90	-55	534	-122	1403	-84	-98	-133	-198	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.187	1	Yes	0.801	0.186	0.99	Yes	1.00	**4.38**
		L_{12} - L_{13}			-----	-1241.23	557	-34	1431	-98	-130	-138	-213	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.197	1	Yes	0.786	0.189	0.98	Yes	1.00	**4.00**
		L_{13} - L_{14}			-----	-1195.12	92	-36	76	-69	-87	-75	-71	-85	-----	-----	-----	-----	-----	-----	-----	-----	0.973	0.018	1	Yes	0.962	0.014	0.98	Yes	1.00	**6.03**
		L_{14} - L_{15}			-----	-746.96	210	-218	572	147	-33	-143	-32	-88	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.127	1	Yes	0.862	0.127	0.99	Yes	1.00	**5.48**
		L_{15} - L_{16}			-----	-543.90	294	-629	470	155	-174	346	-2	-80	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.161	1	Yes	0.829	0.166	1.00	Yes	1.00	**5.33**
		L_{16} - L_{17}			701.79	-275.59	-634	-496	383	40	-223	43	57	-81	0.807	0.189	1.00	Yes	0.480	0.121	0.61	Yes	0.376	0.204	0.59	Yes	0.373	0.153	0.53	Yes	1.00	**7.02**
		L_{17} - L_{18}			689.98	-----	-614	-705	117	-44	176	113	41	102	0.794	0.199	1.00	Yes	0.459	0.119	0.58	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.02**
		L_{18} - L_{19}			450.45	-----	-841	65	46	15	-118	237	52	-73	0.689	0.303	1.00	Yes	0.421	0.203	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.37**
		L_{19} - L_{20}			24.71	-----	-97	-7	-2060	1773	-61	-17	1571	428	0.038	0.955	1.00	Yes	0.022	0.576	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**58.74**

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Verticals	Structure 1	$U_0 - L_0$			-----	-328.36	1	19	-122	196	-68	-22	-545	-175	-----	-----	-----	-----	-----	-----	-----	-----	0.733	0.262	1	Yes	0.695	0.251	0.95	Yes	1.00	**4.09**
		$U_1 - L_1$			-----	-332.79	56	-52	-216	224	106	41	-117	-49	-----	-----	-----	-----	-----	-----	-----	-----	0.727	0.113	0.85	Yes	0.704	0.286	1.00	Yes	1.00	**7.22**
		$U_2 - L_2$			136.95	-308.84	121	-136	-213	264	95	9	62	101	0.246	0.366	0.62	Yes	0.135	0.202	0.34	Yes	0.675	0.135	0.82	Yes	0.653	0.337	1.00	Yes	1.00	**9.66**
		$U_3 - L_3$			238.88	-----	201	-236	-350	376	-251	-247	25	284	0.430	0.563	1.00	Yes	0.236	0.310	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**14.76**
		$U_4 - L_4$			-----	-374.38	54	-55	159	-162	-161	-75	-98	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.098	0.93	Yes	0.792	0.207	1.00	Yes	1.00	**4.87**
		$U_5 - L_5$			-----	-421.58	59	-66	246	-259	-151	-46	-97	-31	-----	-----	-----	-----	-----	-----	-----	-----	0.763	0.105	0.87	Yes	0.727	0.263	1.00	Yes	1.00	**3.85**
		$U_6 - L_6$			-----	-465.28	72	-72	194	-210	-135	0	1129	417	-----	-----	-----	-----	-----	-----	-----	-----	0.705	0.289	1	Yes	0.667	0.184	0.86	Yes	1.00	**3.30**
		$U_7 - L_7$			-----	-435.63	119	-132	302	-328	-131	46	-1	99	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.125	0.86	Yes	0.672	0.323	1.00	Yes	1.00	**3.06**
		$U_8 - L_8$			-----	-1342.24	-27	28	-11	12	-219	-68	-220	-92	-----	-----	-----	-----	-----	-----	-----	-----	0.969	0.023	1	Yes	0.931	0.005	0.94	Yes	1.00	**4.35**
		$U_9 - L_9$			-----	-654.28	-176	203	-400	462	-245	-171	-315	-253	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.146	0.93	Yes	0.739	0.257	1.00	Yes	1.00	**4.23**
		$U_{10} - L_{10}$			-----	-820.73	-115	115	-361	349	-203	-146	-318	-257	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.114	0.97	Yes	0.810	0.187	1.00	Yes	1.00	**6.22**
		$U_{11} - L_{11}$			-----	-666.69	-118	161	-370	462	-140	-32	-157	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.091	0.9	Yes	0.776	0.214	1.00	Yes	1.00	**5.44**
		$U_{12} - L_{12}$			-----	-535.69	-103	102	-299	307	-125	5	-99	63	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.090	0.87	Yes	0.735	0.263	1.00	Yes	1.00	**5.00**
		$U_{13} - L_{13}$			-----	-368.74	-64	78	-237	256	-106	45	-80	107	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.102	0.85	Yes	0.706	0.293	1.00	Yes	1.00	**3.82**
		$U_{14} - L_{14}$			-----	-401.31	-39	45	-97	111	-149	-49	-189	-37	-----	-----	-----	-----	-----	-----	-----	-----	0.895	0.099	1	Yes	0.849	0.142	1.00	Yes	1.00	**5.82**
		$U_{15} - L_{15}$			54.62	-297.30	-45	44	277	-286	-156	-89	-94	-227	0.098	0.431	0.53	Yes	0.054	0.237	0.30	Yes	0.666	0.180	0.85	Yes	0.629	0.365	1.00	Yes	1.00	**7.79**
		$U_{16} - L_{16}$			-----	-283.33	19	-22	165	-181	-167	-117	1454	8	-----	-----	-----	-----	-----	-----	-----	-----	0.638	0.360	1	Yes	0.600	0.231	0.84	Yes	1.00	**4.78**
		$U_{17} - L_{17}$			-----	-437.04	43	-55	218	-236	-170	-100	40	-87	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.131	0.95	Yes	0.754	0.239	1.00	Yes	1.00	**4.52**
		$U_{18} - L_{18}$			-----	-534.03	116	-122	423	-441	-159	-64	59	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.094	0.88	Yes	0.743	0.250	1.00	Yes	1.00	**5.31**
		$U_{19} - L_{19}$			-----	-651.67	130	-143	484	-510	-69	3	362	148	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.148	0.97	Yes	0.758	0.236	1.00	Yes	1.00	**6.05**
		$U_{20} - L_{20}$			-----	-601.25	164	-209	406	-505	18	2	549	72	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.202	1	Yes	0.700	0.234	0.94	Yes	1.00	**4.53**
	Structure 2	$U_0 - L_0$			-----	-648.17	-94	156	-402	520	-274	-46	-789	-134	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.216	1	Yes	0.695	0.221	0.92	Yes	1.00	**4.05**
		$U_1 - L_1$			-----	-703.74	-86	92	-469	507	59	-71	-865	-279	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.195	1	Yes	0.754	0.215	0.97	Yes	1.00	**5.52**
		$U_2 - L_2$			-----	-591.78	-49	57	-445	472	133	52	-698	-193	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.175	0.97	Yes	0.754	0.242	1.00	Yes	1.00	**5.68**
		$U_3 - L_3$			-----	-488.04	-24	29	-215	237	41	146	-510	-167	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.167	1	Yes	0.765	0.216	0.99	Yes	1.00	**5.27**
		$U_4 - L_4$			-----	-341.55	17	-9	-205	212	-42	101	41	238	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.127	0.91	Yes	0.723	0.271	1.00	Yes	1.00	**6.02**
		$U_5 - L_5$			-----	-336.84	79	-77	-191	219	-97	1	5	245	-----	-----	-----	-----	-----	-----	-----	-----	0.761	0.128	0.89	Yes	0.713	0.280	1.00	Yes	1.00	**8.24**
		$U_6 - L_6$			235.23	-----	140	-147	-257	266	-815	-113	40	308	0.423	0.576	1.00	Yes	0.233	0.317	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.38**
		$U_7 - L_7$			-----	-280.94	79	-92	119	-135	-114	-24	-1181	-119	-----	-----	-----	-----	-----	-----	-----	-----	0.635	0.358	1	Yes	0.594	0.173	0.77	Yes	1.00	**5.57**
		$U_8 - L_8$			-----	-459.33	113	-125	372	-383	-166	-113	-643	-478	-----	-----	-----	-----	-----	-----	-----	-----	0.666	0.224	0.89	Yes	0.662	0.335	1.00	Yes	1.00	**5.64**
		$U_9 - L_9$			-----	-669.57	202	-207	458	-513	-220	-118	1870	315	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.254	1	Yes	0.718	0.218	0.94	Yes	1.00	**5.49**
		$U_{10} - L_{10}$			-----	-782.60	184	-194	563	-587	-162	-77	-45	-97	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.097	0.88	Yes	0.732	0.259	1.00	Yes	1.00	**6.27**
		$U_{11} - L_{11}$			-----	-845.59	196	-196	435	-467	-122	-13	-81	34	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.078	0.93	Yes	0.791	0.206	1.00	Yes	1.00	**4.46**
		$U_{12} - L_{12}$			-----	-888.92	192	-191	514	-491	-59	45	49	119	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.086	0.94	Yes	0.770	0.220	1.00	Yes	1.00	**4.64**
		$U_{13} - L_{13}$			-----	-660.98	264	-271	513	-517	-112	9	917	121	-----	-----	-----	-----	-----	-----	-----	-----	0.737	0.257	1	Yes	0.637	0.247	0.89	Yes	1.00	**3.21**
		$U_{14} - L_{14}$			-----	-1342.81	78	-77	81	-86	-101	57	-110	35	-----	-----	-----	-----	-----	-----	-----	-----	0.982	0.012	1	Yes	0.890	0.015	0.91	Yes	1.00	**4.28**
		$U_{15} - L_{15}$			-----	-706.71	-136	151	-658	660	-32	15	-184	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.157	0.95	Yes	0.681	0.316	1.00	Yes	1.00	**5.71**
		$U_{16} - L_{16}$			-----	-737.29	-83	49	-491	451	-134	-53	-292	-207	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.116	0.97	Yes	0.790	0.208	1.00	Yes	1.00	**4.84**
		$U_{17} - L_{17}$			-----	-639.13	-138	125	-538	530	-85	-42	-160	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.092	0.89	Yes	0.744	0.250	1.00	Yes	1.00	**4.14**
		$U_{18} - L_{18}$			-----	-613.98	-130	116	-380	421	-77	-39	-188	-60	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.088	0.91	Yes	0.782	0.215	1.00	Yes	1.00	**3.93**
		$U_{19} - L_{19}$			-----	-490.16	-85	77	-276	277	-90	-43	-131	62	-----	-----	-----	-----	-----	-----	-----	-----	0.737	0.081	0.82	Yes	0.732	0.267	1.00	Yes	1.00	**5.75**
		$U_{20} - L_{20}$			-----	-386.44	-58	61	-209	222	-112	-13	-149	76	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.103	0.9	Yes	0.740	0.254	1.00	Yes	1.00	**5.61**
		$U_{21} - L_{21}$			-----	-317.21	-39	40	-247	257	-140	-67	-132	97	-----	-----	-----	-----	-----	-----	-----	-----	0.717	0.129	0.85	Yes	0.671	0.328	1.00	Yes	1.00	**5.88**
		$U_{22} - L_{22}$			-----	-423.15	-5	6	0	2	-131	-46	-131	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.952	0.044	1	Yes	0.895	0.007	0.91	Yes	1.00	**6.15**
		$U_{23} - L_{23}$			-----	-307.23	24	-25	263	-268	-91	33	-97	-149	-----	-----	-----	-----	-----	-----	-----	-----	0.694	0.145	0.84	Yes	0.650	0.343	1.00	Yes	1.00	**6.24**
		$U_{24} - L_{24}$			-----	-319.27	52	-55	154	-169	-134	-51	1240	159	-----	-----	-----	-----	-----	-----	-----	-----	0.655	0.341	1	Yes	0.612	0.193	0.81	Yes	1.00	**4.22**
		$U_{25} - L_{25}$			-----	-469.88	81	-78	305	-302	-122	32	79	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.088	0.8	Yes	0.702	0.294	1.00	Yes	1.00	**5.10**
		$U_{26} - L_{26}$			-----	-600.72	135	-134	403	-453	-154	22	-64	12	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.085	0.89	Yes	0.765	0.232	1.00	Yes	1.00	**3.92**
		$U_{27} - L_{27}$			-----	-628.37	157	-156	566	-567	-148	42	-99	54	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.082	0.86	Yes	0.731	0.263	1.00	Yes	1.00	**4.05**
		$U_{28} - L_{28}$			-----	-656.38	137	-118	441	-433	-117	38	1357	261	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.237	1	Yes	0.703	0.187	0.90	Yes	1.00	**3.67**
		$U_{29} - L_{29}$			-----	-696.16	222	-242	674	-672	-196	-41	110	117	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.142	0.92	Yes	0.671	0.323	1.00	Yes	1.00	**4.84**
		$U_{30} - L_{30}$			-----	-1337.06	-3	-10	19	-46	-132	-19	-124	-4	-----	-----	-----	-----	-----	-----	-----	-----	0.978	0.021	1	Yes	0.887	0.008	0.90	Yes	1.00	**4.37**
		$U_{31} - L_{31}$			-----	-745.03	-187	189	-586	587	-112	-43	-194	-141	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.149	0.98	Yes	0.718	0.281	1.00	Yes	1.00	**4.75**
		$U_{32} - L_{32}$			-----	-903.86	-123	89	-484	447	-182	-107	-291	-194	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.132	1	Yes	0.783	0.207	1.00	Yes	1.00	**5.09**
		$U_{33} - L_{33}$			-----	-858.61	-169	146	-404	430	-138	-77	-156	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.080	0.95	Yes	0.803	0.190	1.00	Yes	1.00	**4.84**
		$U_{34} - L_{34}$			-----	-819.87	-156	162	-507	525	-102	19	146	-159	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.080	0.9	Yes	0.767	0.232	1.00	Yes	1.00	**7.82**
		$U_{35} - L_{35}$			-----	-617.33	-180	186	-408	439	-105	35	2022	582	-----	-----	-----	-----	-----	-----	-----	-----	0.687	0.307	1	Yes	0.662	0.186	0.85	Yes	1.00	**5.90**
		$U_{36} - L_{36}$			-----	-471.33	-103	116	-341	358	-103	47	-52	192	-----	-----	-----	-----	-----	-----	-----	-----	0.683	0.101	0.79	Yes	0.679	0.313	1.00	Yes	1.00	**5.74**
		$U_{37} - L_{37}$			-----	-291.91	-57	68	-57	68	-121	-8	-1249	-49	-----	-----	-----	-----	-----	-----	-----	-----	0.659	0.336	1	Yes	0.618	0.087	0.71	Yes	1.00	**5.66**
		$U_{38} - L_{38}$			219.99	-----	-153	169	257	-257	-117	-29	-937	-609	0.396	0.600	1.00	Yes	0.218	0.330	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.72**
		$U_{39} - L_{39}$			97.70	-278.03	-75	73	116	-144	-151	-57	1478	-19	0.176	0.612	0.79	Yes	0.097	0.337	0.44	Yes	0.628	0.372	1	Yes	0.588	0.184	0.78	Yes	1.00	**5.80**
		$U_{40} - L_{40}$			-----	-328.62	-20	11	231	-232	-129	-59	-58	-128	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.126	0.88	Yes	0.695	0.296	1.00	Yes	1.00	**5.13**
		$U_{41} - L_{41}$			-----	-489.00	27	-33	237	-253	-102	-38	-92	-112	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.102	0.94	Yes	0.767	0.230	1.00	Yes	1.00	**4.91**
		$U_{42} - L_{42}$			-----	-582.80	71	-81	491	-502	-83	-55	58	26	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.080	0.87	Yes	0.743	0.257	1.00	Yes	1.00	**5.53**
		$U_{43} - L_{43}$			-----	-707.23	107	-124	521	-554	-58	-38	461	243	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.145	0.96	Yes	0.758	0.235	1.00	Yes	1.00	**5.91**
		$U_{44} - L_{44}$			-----	-662.74	179	-218	442	-567	-60	-10	663	112	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.200	1	Yes	0.710	0.241	0.96	Yes	1.00	**4.38**
	Structure 3	$U_0 - L_0$			-----	-578.12	-98	161	-365	458	-244	-32	-731	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.229	1	Yes	0.673	0.213	0.89	Yes	1.00	**4.52**
		$U_1 - L_1$			-----	-632.21	-104	112	-418	453	8	-74	-782	-208	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.204	1	Yes	0.736	0.210	0.95	Yes	1.00	**6.07**
		$U_2 - L_2$			-----	-545.72	-81	86	-390	420	93	37	-722	-182	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.189	0.99	Yes	0.759	0.238	1.00	Yes	1.00	**6.34**
		$U_3 - L_3$			-----	-449.75	-28	39	-192	215	6	124	-44	173	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.110	0.96	Yes	0.776	0.218	1.00	Yes	1.00	**5.55**
		$U_4 - L_4$			-----	-330.64	-9	12	-215	229	-74	99	-154	188	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.102	0.85	Yes	0.700	0.293	1.00	Yes	1.00	**6.50**
		$U_5 - L_5$			-----	-302.01	35	-32	-262	276	-115	23	-162	171	-----	-----	-----	-----	-----	-----	-----	-----	0.677	0.128	0.81	Yes	0.639	0.352	1.00	Yes	1.00	**7.68**
		$U_6 - L_6$			-----	-399.39	34	-37	109	-117	-149	-43	-113	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.891	0.087	0.98	Yes	0.845	0.150	1.00	Yes	1.00	**5.88**
		$U_7 - L_7$			-----	-357.29	61	-73	254	-270	-163	-111	-187	-173	-----	-----	-----	-----	-----	-----	-----	-----	0.722	0.148	0.87	Yes	0.684	0.308	1.00	Yes	1.00	**3.95**
		$U_8 - L_8$			-----	-475.13	103	-100	257	-270	-196	-126	1423	404	-----	-----	-----	-----	-----	-----	-----	-----	0.686	0.310	1	Yes	0.652	0.230	0.89	Yes	1.00	**4.15**
		$U_9 - L_9$			-----	-651.28	123	-164	411	-502	-154	-70	56	17	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.098	0.88	Yes	0.758	0.233	1.00	Yes	1.00	**5.09**
		$U_{10} - L_{10}$			-----	-803.60	120	-125	383	-394	-88	12	135	179	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.078	0.92	Yes	0.793	0.204	1.00	Yes	1.00	**5.80**
		$U_{11} - L_{11}$			-----	-641.73	186	-216	419	-487	-39	68	105	180	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.116	0.89	Yes	0.725	0.271	1.00	Yes	1.00	**3.88**
		$U_{12} - L_{12}$			-----	-1194.64	49	-76	101	-169	-99	13	1283	285	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.131	1	Yes	0.828	0.032	0.86	Yes	1.00	**3.95**
		$U_{13} - L_{13}$			-----	-448.74	-106	117	-287	310	-140	-95	-162	-137	-----	-----	-----	-----	-----	-----	-----	-----	0.750	0.148	0.9	Yes	0.692	0.305	1.00	Yes	1.00	**3.77**
		$U_{14} - L_{14}$			-----	-552.63	-63	59	-235	234	-163	-132	-275	-212	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.129	0.97	Yes	0.793	0.206	1.00	Yes	1.00	**4.84**
		$U_{15} - L_{15}$			-----	-434.30	-51	56	-233	243	-141	-63	-199	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.114	0.91	Yes	0.749	0.246	1.00	Yes	1.00	**4.07**
		$U_{16} - L_{16}$			-----	-379.38	-52	52	-146	152	-162	-85	-233	-118	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.119	0.96	Yes	0.803	0.194	1.00	Yes	1.00	**4.94**
		$U_{17} - L_{17}$			232.02	-----	-221	253	361	-376	-110	104	-293	-344	0.417	0.580	1.00	Yes	0.230	0.319	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**14.47**
		$U_{18} - L_{18}$			90.16	-224.04	-86	94	108	-145	-150	-64	1900	528	0.162	0.736	0.90	Yes	0.089	0.405	0.50	Yes	0.490	0.502	1	Yes	0.474	0.186	0.66	Yes	1.00	**5.78**
		$U_{19} - L_{19}$			-----	-322.78	-55	41	245	-247	-169	-95	149	53	-----	-----	-----	-----	-----	-----	-----	-----	0.705	0.134	0.84	Yes	0.683	0.316	1.00	Yes	1.00	**5.76**
		$U_{20} - L_{20}$			-----	-332.60	37	-37	162	-229	-224	-72	343	110	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.205	0.95	Yes	0.704	0.292	1.00	Yes	1.00	**3.73**

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
Center Truss - Diagonals	Structure 1	$U_0 - L_1$	607.46	-----	-60	51	22	-19	-507	-237	-39	-2	0.797	0.197	1.00	Yes	0.481	0.109	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**8.36**
		$U_1 - L_2$	429.14	-167.38	-100	26	29	-18	-320	-222	71	62	0.772	0.220	1.00	Yes	0.425	0.121	0.55	Yes	0.384	0.206	0.6	Yes	0.354	0.128	0.49	Yes					1.00	**8.48**
		$U_2 - L_3$	-----	-290.02	-113	17	53	-31	-383	-491	13	184	-----	-----	-----	-----	-----	-----	-----	-----	0.668	0.328	1	Yes	0.614	0.144	0.76	Yes					1.00	**11.23**
		$U_3 - L_4$	-----	-319.10	-75	-108	14	-52	-422	-348	-56	-15	-----	-----	-----	-----	-----	-----	-----	-----	0.730	0.266	1	Yes	0.675	0.138	0.82	Yes					1.00	**8.50**
		$U_4 - L_4$	598.14	-----	-92	38	-13	23	66	15	111	21	0.877	0.120	1.00	Yes	0.482	0.066	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.60**
		$U_4 - L_5$	678.59	-----	-149	272	-35	76	188	79	189	96	0.802	0.189	1.00	Yes	0.441	0.104	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.76**
		$U_5 - L_6$	652.49	-----	-283	262	-78	85	371	-27	297	170	0.771	0.229	1.00	Yes	0.424	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.32**
		$U_6 - L_7$	629.07	-----	-62	346	-8	116	310	215	243	175	0.744	0.253	1.00	Yes	0.409	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.60**
		$U_8 - L_9$	944.92	-----	9	433	54	178	372	321	136	109	0.755	0.241	1.00	Yes	0.468	0.135	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.63**
		$U_9 - L_{10}$	1014.44	-----	-289	318	-97	85	330	291	89	104	0.811	0.184	1.00	Yes	0.502	0.103	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.92**
		$U_{10} - L_{11}$	1021.49	-----	-201	258	-74	71	0	-57	-53	-69	0.863	0.128	1.00	Yes	0.534	0.071	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.96**
		$U_{11} - L_{12}$	851.96	-----	-244	161	-79	29	-263	-280	-192	-163	0.843	0.155	1.00	Yes	0.464	0.085	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.27**
		$U_{12} - L_{13}$	622.84	-----	-192	167	-72	51	-357	-330	-229	-195	0.759	0.238	1.00	Yes	0.478	0.134	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.74**
		$U_{13} - L_{14}$	426.87	-----	-104	25	-27	10	-307	-330	-210	-207	0.768	0.228	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.29**
		$U_{15} - L_{14}$	381.06	-179.99	-148	-37	34	-49	-401	-418	4	-61	0.685	0.311	1.00	Yes	0.377	0.171	0.55	Yes	0.422	0.258	0.68	Yes	0.381	0.190	0.58	Yes					1.00	**12.70**
		$U_{16} - L_{15}$	402.17	-----	-134	92	-5	-12	-354	-352	-33	-75	0.723	0.274	1.00	Yes	0.398	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.98**
		$U_{17} - L_{16}$	491.60	-----	-144	83	-25	6	-174	-553	-23	-94	0.721	0.275	1.00	Yes	0.396	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.69**
		$U_{18} - L_{17}$	638.89	-----	-340	262	-94	56	-256	-226	4	-43	0.755	0.239	1.00	Yes	0.415	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.70**
		$U_{19} - L_{18}$	699.90	-----	-353	260	-100	64	-371	-142	38	0	0.758	0.241	1.00	Yes	0.417	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.97**
		$U_{20} - L_{19}$	677.17	-----	-361	310	-126	104	-454	-79	-1	28	0.733	0.259	1.00	Yes	0.403	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.64**
	Structure 2	$U_0 - L_1$	749.89	-----	-378	361	-47	56	-490	-159	-126	60	0.742	0.248	1.00	Yes	0.408	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.44**
		$U_1 - L_2$	738.62	-----	-371	286	-66	41	-630	-256	60	20	0.731	0.266	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.56**
		$U_2 - L_3$	607.53	-----	-336	255	-38	27	-468	-182	-63	-186	0.718	0.275	1.00	Yes	0.395	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.53**
		$U_3 - L_4$	557.51	-----	-182	119	-12	-1	-433	-200	-237	-222	0.743	0.257	1.00	Yes	0.409	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.79**
		$U_4 - L_5$	388.90	-----	-131	87	18	-24	-427	-396	-143	-89	0.699	0.291	1.00	Yes	0.385	0.160	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.74**
		$U_5 - L_6$	363.60	-197.02	-129	62	61	-59	-608	-461	-101	-20	0.654	0.341	1.00	Yes	0.360	0.187	0.55	Yes	0.465	0.350	0.82	Yes	0.417	0.164	0.59	Yes					1.00	**9.64**
		$U_6 - L_7$	-----	-305.23	-59	-39	37	-83	-320	-747	-496	-336	-----	-----	-----	-----	-----	-----	-----	-----	0.654	0.339	1	Yes	0.585	0.094	0.68	Yes					1.00	**6.41**
		$U_8 - L_7$	582.17	-----	-217	108	-58	47	-285	-264	-26	-113	0.742	0.252	1.00	Yes	0.467	0.142	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.39**
		$U_8 - L_9$	692.20	-----	-335	235	-125	89	-282	-431	17	-69	0.750	0.242	1.00	Yes	0.412	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.50**
		$U_{10} - L_9$	772.78	-----	-322	198	-115	96	-34	-560	46	-19	0.765	0.233	1.00	Yes	0.420	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.89**
		$U_{11} - L_{10}$	899.52	-----	-376	305	-132	123	-44	-85	145	35	0.819	0.179	1.00	Yes	0.451	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.66**
		$U_{12} - L_{11}$	885.71	-----	-350	354	-141	150	256	163	215	115	0.807	0.185	1.00	Yes	0.444	0.102	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.09**
		$U_{13} - L_{12}$	750.22	-----	-426	389	-180	174	347	202	350	182	0.742	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.66**
		$U_{14} - L_{13}$	722.99	-----	-215	449	-29	193	381	-184	468	163	0.715	0.278	1.00	Yes	0.393	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.51**
		$U_{14} - L_{15}$	610.04	-----	-144	409	56	76	249	165	30	-20	0.721	0.276	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.95**
		$U_{15} - L_{16}$	632.40	-----	-379	353	-67	72	195	173	8	34	0.748	0.250	1.00	Yes	0.411	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.60**
		$U_{16} - L_{17}$	723.42	-----	-323	381	-53	105	98	77	-6	14	0.784	0.211	1.00	Yes	0.431	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.39**
		$U_{17} - L_{18}$	690.18	-----	-309	305	-53	104	-1	-5	-27	6	0.816	0.180	1.00	Yes	0.449	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.28**
		$U_{18} - L_{19}$	666.88	-----	-285	262	-17	106	-249	-231	-5	21	0.788	0.206	1.00	Yes	0.434	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.78**
		$U_{19} - L_{20}$	576.15	-----	-211	182	68	-342	-305	-1	57	0.735	0.258	1.00	Yes	0.404	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.80**
		$U_{20} - L_{21}$	419.29	-----	-120	106	-16	35	-319	-262	19	31	0.754	0.245	1.00	Yes	0.415	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.45**
		$U_{21} - L_{22}$	359.52	-----	-144	6	-9	-34	-454	-406	-559	-379	0.647	0.346	1.00	Yes	0.356	0.190	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**8.06**
		$U_{23} - L_{22}$	405.88	-----	-148	27	-22	-32	-166	-259	-243	-275	0.730	0.269	1.00	Yes	0.401	0.148	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**9.44**
		$U_{24} - L_{23}$	428.63	-----	-123	104	-8	26	-168	-204	229	142	0.771	0.223	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.96**
		$U_{25} - L_{24}$	552.18	-----	-201	147	-14	57	-47	-565	251	163	0.704	0.295	1.00	Yes	0.387	0.168	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.82**
		$U_{26} - L_{25}$	657.64	-----	-289	262	-29	102	-12	-90	286	196	0.777	0.215	1.00	Yes	0.428	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.89**
		$U_{27} - L_{26}$	658.34	-----	-292	285	-64	108	230	102	264	159	0.778	0.213	1.00	Yes	0.428	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.86**
		$U_{28} - L_{27}$	705.59	-----	-318	372	-78	125	273	178	262	179	0.764	0.235	1.00	Yes	0.420	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.06**
		$U_{29} - L_{28}$	616.69	-----	-362	332	-116	114	334	-83	303	143	0.729	0.265	1.00	Yes	0.401	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**3.61**
		$U_{30} - L_{29}$	600.04	-----	-158	382	8	134	264	153	404	111	0.709	0.289	1.00	Yes	0.390	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.65**
		$U_{30} - L_{31}$	736.22	-----	-198	494	19	129	280	166	124	34	0.728	0.271	1.00	Yes	0.401	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.76**
		$U_{31} - L_{32}$	771.43	-----	-450	404	-122	124	180	145	53	61	0.763	0.235	1.00	Yes	0.420	0.130	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.52**
		$U_{32} - L_{33}$	914.51	-----	-358	363	-81	141	28	32	9	28	0.833	0.158	1.00	Yes	0.458	0.087	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.80**
		$U_{33} - L_{34}$	872.37	-----	-363	268	-66	149	-343	-176	6	38	0.795	0.201	1.00	Yes	0.437	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.47**
		$U_{34} - L_{35}$	824.13	-----	-272	242	-101	90	-369	259	-193	-171	0.815	0.182	1.00	Yes	0.448	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.96**
		$U_{35} - L_{36}$	678.24	-----	-333	235	-117	88	-547	-442	-245	-186	0.735	0.260	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.92**
		$U_{36} - L_{37}$	519.48	-----	-190	105	-59	55	-332	-787	-215	-206	0.662	0.330	1.00	Yes	0.417	0.190	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.43**
		$U_{38} - L_{37}$	-----	-369.46	-104	-35	41	-99	-318	-294	-276	-297	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.196	1	Yes	0.708	0.118	0.83	Yes					1.00	**9.80**
		$U_{39} - L_{38}$	388.07	-224.82	-126	63	69	-66	-255	-477	78	8	0.698	0.299	1.00	Yes	0.384	0.164	0.55	Yes	0.536	0.231	0.77	Yes	0.476	0.161	0.64	Yes					1.00	**9.22**
		$U_{40} - L_{39}$	366.69	-----	-126	69	19	-27	-50	-594	27	-13	0.660	0.333	1.00	Yes	0.363	0.183	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.47**
		$U_{41} - L_{40}$	586.41	-----	-191	140	-12	-5	-171	-187	27	-5	0.782	0.213	1.00	Yes	0.430	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.41**
		$U_{42} - L_{41}$	649.85	-----	-345	269	-51	31	-122	-150	-5	2	0.768	0.223	1.00	Yes	0.423	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.49**
		$U_{43} - L_{42}$	777.64	-----	-391	312	-71	44	-327	-88	-18	-44	0.769	0.230	1.00	Yes	0.423	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.10**
		$U_{44} - L_{43}$	771.08	-----	-376	368	-124	105	-404	-19	34	-10	0.763	0.235	1.00	Yes	0.420	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.82**
	Structure 3	$U_0 - L_1$	660.03	-----	-373	311	-64	67	-572	-186	-137	43	0.715	0.285	1.00	Yes	0.393	0.157	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.94**
		$U_1 - L_2$	662.43	-----	-331	234	-85	52	-687	-274	35	10	0.717	0.282	1.00	Yes	0.395	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.14**
		$U_2 - L_3$	631.48	-----	-336	253	-66	38	-280	-339	-75	-172	0.747	0.252	1.00	Yes	0.411	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.95**
		$U_3 - L_4$	506.15	-----	-151	104	-15	3	-417	-397	-217	-204	0.742	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.03**
		$U_4 - L_5$	381.64	-----	-126	91	-6	-8	-507	-401	-194	-132	0.686	0.309	1.00	Yes	0.378	0.170	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.59**
		$U_5 - L_6$	321.63	-151.25	-146	-65	-4	-79	-739	-598	-780	-552	0.578	0.413	1.00	Yes	0.318	0.227	0.55	Yes	0.354	0.412	0.77	Yes	0.320	0.187	0.51	Yes					1.00	**10.75**
		$U_7 - L_6$	436.74	-----	-105	23	-23	6	-130	-273	-27	-144	0.785	0.213	1.00	Yes	0.432	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.63**
		$U_8 - L_7$	638.87	-----	-195	171	-66	46	-163	-229	-29	-86	0.779	0.215	1.00	Yes	0.490	0.121	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.00**
		$U_8 - L_9$	816.64	-----	-251	125	-77	27	-11	-460	57	-39	0.808	0.185	1.00	Yes	0.444	0.102	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.44**
		$U_{10} - L_9$	1017.14	-----	-215	246	-74	68	151	43	137	57	0.859	0.134	1.00	Yes	0.532	0.075	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.33**
		$U_{11} - L_{10}$	1000.09	-----	-295	311	-101	87	459	346	307	197	0.799	0.197	1.00	Yes	0.495	0.111	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.04**
		$U_{12} - L_{11}$	942.84	-----	-15	416	-16	142	451	372	293	217	0.754	0.243	1.00	Yes	0.467	0.136	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.94**
		$U_{12} - L_{13}$	630.21	-----	-46	357	-4	107	258	196	114	92	0.745	0.251	1.00	Yes	0.410	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.65**
		$U_{13} - L_{14}$	661.85	-----	-283	290	-71	76	235	211	91	114	0.782	0.208	1.00	Yes	0.430	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.47**
		$U_{14} - L_{15}$	700.92	-----	-151	277	-31	69	45	5	37	15	0.829	0.166	1.00	Yes	0.456	0.091	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**5.24**
		$U_{15} - L_{16}$	598.81	-----	-93	39	-12	23	-91	-30	-50	-23	0.878	0.116	1.00	Yes	0.483	0.064	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**4.83**
		$U_{17} - L_{16}$	-----	-378.46	-58	-71	9	-97	-93	-264	-237	216	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.130	1	Yes	0.801	0.124	0.93	Yes					1.00	**8.35**
		$U_{18} - L_{17}$	-----	-307.03	-123	19	61	-35	-294	-431	131	243	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.285	1	Yes	0.650	0.158	0.81	Yes					1.00	**11.71**
		$U_{19} - L_{18}$	416.90	-119.12	-89	0	27	-21	-234	-462	37	-1	0.750	0.248	1.00	Yes	0.412	0.136	0.55	Yes	0.273	0.209	0.49	Yes	0.252	0.114	0.37	Yes					1.00	**6.38**
		$U_{20} - L_{19}$	615.03	-----	-78	63	-20	-1	-378	-195	31	-18	0.807	0.186	1.00	Yes	0.487	0.103	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----					1.00	**6.66**

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 1.300 1.300

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
	Vehicle	Pedestrian	Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Upper Chord	Structure 1	$U_0 - U_1$	-----	-577.59	-230	184	868	-913	-167	226	674	-849	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.123	0.91	Yes	0.779	0.217	1.00	Yes	1.00	**10.80**
		$U_1 - U_2$	-----	-509.77	-95	134	-322	-703	-165	159	-81	-507	-----	-----	-----	-----	-----	-----	-----	-----	0.694	0.299	1	Yes	0.687	0.167	0.86	Yes	1.00	**4.75**
		$U_2 - U_3$	-----	-578.59	-49	406	-757	-196	-126	187	560	-609	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.204	1	Yes	0.780	0.180	0.97	Yes	1.00	**6.43**
		$U_3 - U_4$	554.81	-597.67	183	460	-552	-306	-243	-16	-247	-404	0.636	0.199	0.84	Yes	0.436	0.136	0.58	Yes	0.813	0.186	1	Yes	0.806	0.131	0.94	Yes	1.00	**7.36**
		$U_4 - U_5$	547.32	-574.06	233	438	-638	-175	-117	-19	-377	-171	0.627	0.215	0.85	Yes	0.431	0.147	0.58	Yes	0.781	0.214	1	Yes	0.774	0.152	0.93	Yes	1.00	**7.19**
		$U_5 - U_6$	727.82	-----	309	521	-473	331	94	136	-152	-211	0.834	0.160	1.00	Yes	0.563	0.104	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.87**
		$U_6 - U_7$	895.13	-----	436	210	10	48	299	356	61	-112	0.856	0.142	1.00	Yes	0.598	0.097	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.32**
		$U_7 - U_8$	1004.15	-----	-222	1531	-139	919	338	688	231	380	0.696	0.302	1.00	Yes	0.485	0.206	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.43**
		$U_8 - U_9$	803.21	-----	1592	-568	812	-254	588	49	302	267	0.658	0.339	1.00	Yes	0.450	0.231	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.01**
		$U_9 - U_{10}$	687.32	-----	248	288	292	-706	1	304	567	-539	0.746	0.249	1.00	Yes	0.505	0.167	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.76**
		$U_{10} - U_{11}$	-----	-637.30	248	-173	192	-794	45	110	227	-459	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.139	0.96	Yes	0.813	0.178	1.00	Yes	1.00	**5.35**
		$U_{11} - U_{12}$	-----	-915.57	139	-217	-16	-804	12	93	81	-231	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.126	1	Yes	0.859	0.133	1.00	Yes	1.00	**3.51**
		$U_{12} - U_{13}$	-----	-1269.39	-59	-271	-498	-599	75	4	733	-462	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.135	1	Yes	0.848	0.083	0.94	Yes	1.00	**4.22**
		$U_{13} - U_{14}$	-----	-1433.39	-195	-502	-548	-1103	-47	-13	-52	-277	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.163	1	Yes	0.822	0.122	0.95	Yes	1.00	**4.34**
		$U_{14} - U_{15}$	-----	-1431.13	-403	-291	-1061	-671	36	-276	-172	-276	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.165	1	Yes	0.820	0.117	0.94	Yes	1.00	**4.33**
		$U_{15} - U_{16}$	-----	-1480.41	-197	-465	-737	-773	-109	-416	-318	-278	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.142	1	Yes	0.849	0.085	0.94	Yes	1.00	**4.95**
		$U_{16} - U_{17}$	-----	-1447.08	-408	-225	-1019	-424	-267	-362	-194	-207	-----	-----	-----	-----	-----	-----	-----	-----	0.839	0.161	1	Yes	0.830	0.112	0.95	Yes	1.00	**5.92**
		$U_{17} - U_{18}$	-----	-1056.22	-265	-53	-657	10	-122	73	-133	-17	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.157	1	Yes	0.826	0.107	0.94	Yes	1.00	**4.06**
		$U_{18} - U_{19}$	-----	-704.88	-254	19	-653	118	370	-143	195	-244	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.195	1	Yes	0.793	0.131	0.93	Yes	1.00	**4.09**
		$U_{19} - U_{20}$	-----	-604.08	-235	-78	-1064	-217	-31	-122	-134	-45	-----	-----	-----	-----	-----	-----	-----	-----	0.686	0.311	1	Yes	0.680	0.214	0.90	Yes	1.00	**11.07**
	Structure 2	$U_0 - U_1$	-----	-543.86	728	-418	2077	-1762	396	-132	1280	-512	-----	-----	-----	-----	-----	-----	-----	-----	0.646	0.243	0.89	Yes	0.642	0.352	1.00	Yes	1.00	**10.19**
		$U_1 - U_2$	-----	-852.85	-150	-280	-242	-922	-39	59	268	-352	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.165	1	Yes	0.823	0.140	0.97	Yes	1.00	**5.24**
		$U_2 - U_3$	-----	-1188.15	-146	-384	-108	-1123	-35	-34	135	-609	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.143	1	Yes	0.843	0.114	0.96	Yes	1.00	**4.58**
		$U_3 - U_4$	-----	-1430.94	-517	-500	-896	-1287	-122	-25	-9	-345	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.176	1	Yes	0.815	0.115	0.93	Yes	1.00	**3.91**
		$U_4 - U_5$	-----	-1555.04	-566	-511	-1104	-1383	-130	-72	10	-616	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.188	1	Yes	0.798	0.115	0.92	Yes	1.00	**3.80**
		$U_5 - U_6$	-----	-1616.93	-545	52	-1264	-840	-198	-38	-220	-441	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.158	1	Yes	0.830	0.105	0.94	Yes	1.00	**3.86**
		$U_6 - U_7$	-----	-1403.92	-298	-196	-1075	-1230	-170	-88	-188	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.188	1	Yes	0.799	0.110	0.91	Yes	1.00	**3.51**
		$U_7 - U_8$	-----	-1407.50	-334	-180	-1392	-869	-79	-174	-263	-379	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.189	1	Yes	0.801	0.124	0.93	Yes	1.00	**3.55**
		$U_8 - U_9$	-----	-1237.38	-321	246	-1222	-314	-15	-192	-253	-309	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.154	1	Yes	0.839	0.130	0.97	Yes	1.00	**4.16**
		$U_9 - U_{10}$	-----	-950.55	-40	582	-1240	-26	-131	-245	-483	-487	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.168	1	Yes	0.820	0.151	0.98	Yes	1.00	**5.28**
		$U_{10} - U_{11}$	879.64	-626.41	396	648	-1110	-43	-216	-112	-822	-357	0.743	0.257	1.00	Yes	0.506	0.169	0.68	Yes	0.626	0.214	0.85	Yes	0.622	0.157	0.78	Yes	1.00	**7.39**
		$U_{11} - U_{12}$	987.70	-----	251	684	-491	255	24	35	-514	-515	0.834	0.159	1.00	Yes	0.560	0.106	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.13**
		$U_{12} - U_{13}$	1362.40	-----	179	-4	-243	-183	-250	474	-291	-288	0.920	0.076	1.00	Yes	0.656	0.053	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.46**
		$U_{13} - U_{14}$	1289.15	-----	-563	3148	-534	2228	412	980	118	445	0.634	0.358	1.00	Yes	0.449	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.39**
		$U_{14} - U_{15}$	1303.58	-----	3266	-428	1844	-226	809	444	562	700	0.641	0.358	1.00	Yes	0.454	0.235	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.54**
		$U_{15} - U_{16}$	1431.96	-----	61	-633	-16	18	267	-289	425	646	0.866	0.127	1.00	Yes	0.616	0.087	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.73**
		$U_{16} - U_{17}$	1176.87	-----	605	318	581	-564	-87	332	264	-506	0.867	0.129	1.00	Yes	0.577	0.085	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.17**
		$U_{17} - U_{18}$	832.82	-----	433	343	363	-702	-105	285	149	-200	0.836	0.161	1.00	Yes	0.557	0.106	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.03**
		$U_{18} - U_{19}$	780.45	-668.23	560	319	197	-750	-59	183	289	-599	0.783	0.215	1.00	Yes	0.514	0.138	0.66	Yes	0.794	0.139	0.94	Yes	0.789	0.127	0.92	Yes	1.00	**7.11**
		$U_{19} - U_{20}$	396.50	-724.34	275	174	-212	-929	-108	127	-51	-385	0.372	0.201	0.58	Yes	0.246	0.132	0.38	Yes	0.804	0.188	1	Yes	0.799	0.149	0.95	Yes	1.00	**4.59**
		$U_{20} - U_{21}$	-----	-897.96	157	82	-766	-515	-69	49	583	-510	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.172	1	Yes	0.820	0.111	0.94	Yes	1.00	**4.99**
		$U_{21} - U_{22}$	-----	-879.39	27	83	-580	-803	-191	-54	-92	-249	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.184	1	Yes	0.803	0.116	0.92	Yes	1.00	**4.82**
		$U_{22} - U_{23}$	-----	-868.97	87	17	-874	-643	-92	-139	-194	-186	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.195	1	Yes	0.793	0.127	0.92	Yes	1.00	**4.76**
		$U_{23} - U_{24}$	-----	-890.34	144	206	-871	-301	10	-46	-359	-153	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.178	1	Yes	0.813	0.126	0.94	Yes	1.00	**6.08**
		$U_{24} - U_{25}$	670.56	-783.10	351	402	-662	-110	21	-41	-317	-90	0.629	0.149	0.78	Yes	0.417	0.098	0.52	Yes	0.869	0.121	1	Yes	0.864	0.106	0.98	Yes	1.00	**7.71**
		$U_{25} - U_{26}$	803.14	-----	361	549	-759	446	31	-9	-440	-276	0.806	0.193	1.00	Yes	0.529	0.124	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.16**
		$U_{26} - U_{27}$	833.43	-----	389	414	-515	318	19	61	-485	-158	0.837	0.158	1.00	Yes	0.557	0.105	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.95**
		$U_{27} - U_{28}$	1101.64	-----	-319	1145	-336	433	-196	-37	-196	-371	0.812	0.183	1.00	Yes	0.540	0.120	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.40**
		$U_{28} - U_{29}$	1524.17	-----	202	88	118	-26	-124	643	124	226	0.921	0.077	1.00	Yes	0.656	0.054	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.07**
		$U_{29} - U_{30}$	1295.01	-----	-322	3083	-5	1711	529	1055	813	1033	0.637	0.357	1.00	Yes	0.451	0.235	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.31**
		$U_{30} - U_{31}$	1266.66	-----	3426	-945	1911	-529	772	96	878	854	0.623	0.377	1.00	Yes	0.441	0.248	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.92**
		$U_{31} - U_{32}$	1311.33	-----	97	412	-159	-237	198	399	602	617	0.886	0.111	1.00	Yes	0.631	0.077	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.34**
		$U_{32} - U_{33}$	942.55	-----	631	195	438	-866	15	240	322	-593	0.796	0.195	1.00	Yes	0.535	0.130	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.38**
		$U_{33} - U_{34}$	697.38	-843.72	523	214	-24	-1098	-18	228	285	-314	0.589	0.193	0.79	Yes	0.401	0.125	0.53	Yes	0.844	0.142	0.99	Yes	0.838	0.155	1.00	Yes	1.00	**6.68**
		$U_{34} - U_{35}$	-----	-1004.89	410	-172	-84	-1070	46	47	247	-456	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.126	1	Yes	0.867	0.130	1.00	Yes	1.00	**4.25**
		$U_{35} - U_{36}$	-----	-1260.31	112	-453	-319	-1087	-15	92	77	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.129	1	Yes	0.855	0.116	0.98	Yes	1.00	**3.47**
		$U_{36} - U_{37}$	-----	-1446.63	-283	-306	-880	-1294	-18	-118	11	-257	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.169	1	Yes	0.824	0.115	0.94	Yes	1.00	**3.23**
		$U_{37} - U_{38}$	-----	-1427.06	-196	-420	-1182	-1064	-94	-194	-171	-340	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.178	1	Yes	0.813	0.105	0.92	Yes	1.00	**3.14**
		$U_{38} - U_{39}$	-----	-1634.34	-127	-616	-935	-1209	13	-201	-226	-326	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.148	1	Yes	0.839	0.100	0.94	Yes	1.00	**3.67**
		$U_{39} - U_{40}$	-----	-1584.99	-579	-559	-1414	-928	23	-62	-286	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.172	1	Yes	0.814	0.117	0.94	Yes	1.00	**3.88**
		$U_{40} - U_{41}$	-----	-1472.47	-509	-513	-1177	-825	197	-134	-110	-191	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.155	1	Yes	0.838	0.105	0.95	Yes	1.00	**4.29**
		$U_{41} - U_{42}$	-----	-1223.17	-396	-137	-1134	-33	71	-23	-187	-148	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.122	1	Yes	0.868	0.115	0.99	Yes	1.00	**5.15**
		$U_{42} - U_{43}$	-----	-888.88	-292	-47	-906	72	172	-221	-181	-234	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.129	1	Yes	0.858	0.138	1.00	Yes	1.00	**6.13**
		$U_{43} - U_{44}$	-----	-652.91	-118	-267	-1329	7	-128	-128	-112	109	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.216	1	Yes	0.771	0.226	1.00	Yes	1.00	**12.80**
	Structure 3	$U_0 - U_1$	-----	-543.80	628	-340	1925	-1491	285	-55	1359	-864	-----	-----	-----	-----	-----	-----	-----	-----	0.617	0.292	0.91	Yes	0.612	0.387	1.00	Yes	1.00	**12.64**
		$U_1 - U_2$	-----	-730.98	-80	-222	-63	-699	-21	12	188	-337	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.163	1	Yes	0.822	0.141	0.97	Yes	1.00	**5.01**
		$U_2 - U_3$	-----	-1088.25	-53	-237	34	-598	-30	-48	143	-694	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.133	1	Yes	0.852	0.097	0.95	Yes	1.00	**4.79**
		$U_3 - U_4$	-----	-1377.13	-219	-371	-459	-1283	-102	-37	-215	-564	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.202	1	Yes	0.789	0.142	0.94	Yes	1.00	**4.47**
		$U_4 - U_5$	-----	-1437.35	-438	-143	-1082	-475	-89	-48	541	-639	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.164	1	Yes	0.824	0.119	0.95	Yes	1.00	**4.43**
		$U_5 - U_6$	-----	-1412.23	-255	-373	-618	-1060	-179	-149	-148	-360	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.176	1	Yes	0.810	0.117	0.93	Yes	1.00	**4.65**
		$U_6 - U_7$	-----	-1400.65	-493	-157	-1230	-513	-121	-300	-261	-365	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.182	1	Yes	0.803	0.136	0.94	Yes	1.00	**4.60**
		$U_7 - U_8$	-----	-1216.53	-254	-10	-700	-206	-119	-336	-367	-486	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.168	1	Yes	0.813	0.097	0.91	Yes	1.00	**3.81**
		$U_8 - U_9$	-----	-845.11	-170	200	-656	82	-226	-212	-402	-262	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.191	1	Yes	0.793	0.109	0.91	Yes	1.00	**3.71**
		$U_9 - U_{10}$	-----	-551.41	-84	361	-921	314	-20	-42	-200	-294	-----	-----	-----	-----	-----	-----	-----	-----	0.710	0.288	1	Yes	0.704	0.206	0.92	Yes	1.00	**6.08**
		$U_{10} - U_{11}$	751.78	-----	352	245	-381	314	79	242	-568	-189	0.815	0.177	1.00	Yes	0.552	0.118	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.12**
		$U_{11} - U_{12}$	833.50	-----	-453	1470	-163	757	-32	511	389	549	0.683	0.314	1.00	Yes	0.467	0.214	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.56**
		$U_{12} - U_{13}$	966.73	-----	1836	-416	897	-153	241	112	395	489	0.670	0.328	1.00	Yes	0.467	0.224	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.95**
		$U_{13} - U_{14}$	854.04	-----	218	365	13	-461	-97	373	-36	-562	0.817	0.175	1.00	Yes	0.571	0.121	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.78**
		$U_{14} - U_{15}$	639.57	-----	457	222	26	-366	-54	261	903	-610	0.733	0.261	1.00	Yes	0.494	0.174	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.01**
		$U_{15} - U_{16}$	373.26	-628.66	311	161	-237	-589	-72	226	46	5	0.428	0.178	0.61	Yes	0.294	0.122	0.42	Yes	0.855	0.136	1	Yes	0.848	0.140	0.99	Yes	1.00	**6.29**
		$U_{16} - U_{17}$	373.55	-642.04	378	66	-401	-526	195	-58	76	-140	0.428	0.158	0.59	Yes	0.294	0.108	0.41	Yes	0.874	0.091	0.97	Yes	0.866	0.125	1.00	Yes	1.00	**6.39**
		$U_{17} - U_{18}$	-----	-643.52	257	-164	-410	-529	75	49	-48	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.090	0.97	Yes	0.868	0.126	1.00	Yes	1.00	**5.34**
		$U_{18} - U_{19}$	-----	-584.86	29	-68	-641	-153	230	-196	101	-287	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.200	1	Yes	0.789	0.152	0.95	Yes	1.00	**5.24**
		$U_{19} - U_{20}$	-----	-606.72	125	-328	-585	-550	-143	-111	-168	-59	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.168	1	Yes	0.818	0.139	0.96	Yes	1.00	**10.45**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
South Truss - Lower Chord	Structure 1	L_0 - L_1	216.79	-185.75	6	-106	578	-989	140	515	-460	-1689	0.332	0.659	1.00	Yes	0.195	0.393	0.59	Yes	0.337	0.532	0.87	Yes	0.334	0.297	0.64	Yes	1.00	**20.68**
		L_1 - L_2	380.47	-----	87	-801	-21	65	-822	469	398	-181	0.582	0.417	1.00	Yes	0.355	0.272	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.63**
		L_2 - L_3	638.98	-----	-731	-508	-10	110	209	-512	-194	133	0.735	0.259	1.00	Yes	0.425	0.154	0.58	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.02**
		L_3 - L_4	660.53	-399.08	-533	-347	48	438	-631	283	345	-279	0.760	0.230	1.00	Yes	0.451	0.144	0.60	Yes	0.545	0.146	0.7	Yes	0.540	0.129	0.67	Yes	1.00	**7.17**
		L_4 - L_5	-----	-571.57	-339	329	110	467	221	47	-86	218	-----	-----	-----	-----	-----	-----	-----	-----	0.879	0.115	1	Yes	0.871	0.124	1.00	Yes	1.00	**3.99**
		L_5 - L_6	-----	-747.08	-73	358	126	588	79	-192	189	-208	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.122	1	Yes	0.862	0.130	1.00	Yes	1.00	**3.74**
		L_6 - L_7	-----	-1195.35	-72	101	73	55	-129	286	-114	222	-----	-----	-----	-----	-----	-----	-----	-----	0.973	0.025	1	Yes	0.962	0.016	0.98	Yes	1.00	**5.60**
		L_7 - L_8	-----	-1232.08	-53	771	-79	1322	294	267	369	467	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.202	1	Yes	0.780	0.175	0.96	Yes	1.00	**2.83**
		L_8 - L_9	-----	-1249.31	705	-34	1224	-65	243	352	483	292	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.193	1	Yes	0.791	0.162	0.96	Yes	1.00	**3.44**
		L_9 - L_{10}	-----	-1092.80	320	-226	446	-364	403	-168	111	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.889	0.103	1	Yes	0.880	0.070	0.95	Yes	1.00	**4.92**
		L_{10} - L_{11}	-----	-509.07	191	-269	500	-177	-241	135	-329	158	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.215	1	Yes	0.776	0.132	0.91	Yes	1.00	**6.18**
		L_{11} - L_{12}	517.24	-----	327	-851	346	-238	-566	502	132	-87	0.670	0.324	1.00	Yes	0.402	0.209	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.75**
		L_{12} - L_{13}	1058.06	-----	-425	-546	45	-161	-49	-503	-157	122	0.835	0.156	1.00	Yes	0.534	0.095	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.34**
		L_{13} - L_{14}	1321.71	-----	-105	-1235	181	-526	-547	454	147	18	0.777	0.216	1.00	Yes	0.504	0.133	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.28**
		L_{14} - L_{15}	1611.69	-----	-1491	-409	-567	-152	454	18	-148	165	0.787	0.212	1.00	Yes	0.512	0.129	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.40**
		L_{15} - L_{16}	1727.22	-----	-924	-1037	-303	-362	-1	334	117	-133	0.844	0.148	1.00	Yes	0.542	0.087	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.87**
		L_{16} - L_{17}	1290.69	-----	-1077	118	-415	55	233	-140	-123	175	0.816	0.179	1.00	Yes	0.530	0.110	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.38**
		L_{17} - L_{18}	1014.87	-----	-383	-44	-233	34	-117	-313	105	-104	0.884	0.114	1.00	Yes	0.566	0.069	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.42**
		L_{18} - L_{19}	515.18	-----	-480	233	-384	288	-155	279	-290	232	0.788	0.204	1.00	Yes	0.533	0.130	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.25**
		L_{19} - L_{20}	459.28	-274.37	-374	88	-405	248	373	84	262	59	0.776	0.219	1.00	Yes	0.479	0.127	0.61	Yes	0.550	0.140	0.7	Yes	0.546	0.132	0.68	Yes	1.00	**9.76**
	Structure 2	L_0 - L_1	-----	-438.56	192	-540	523	-1743	118	411	-285	-989	-----	-----	-----	-----	-----	-----	-----	-----	0.631	0.369	1	Yes	0.627	0.355	0.99	Yes	1.00	**15.07**
		L_1 - L_2	627.59	-----	309	-754	207	-304	422	-457	110	140	0.762	0.229	1.00	Yes	0.453	0.144	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.39**
		L_2 - L_3	1048.84	-----	94	-979	-78	-211	298	-127	-80	143	0.827	0.173	1.00	Yes	0.542	0.104	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.10**
		L_3 - L_4	1354.48	-----	-7	-1390	-27	-449	-400	488	190	-33	0.796	0.202	1.00	Yes	0.536	0.126	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.16**
		L_4 - L_5	1810.36	-----	-1093	-1238	-416	-346	507	83	-96	157	0.844	0.151	1.00	Yes	0.559	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.04**
		L_5 - L_6	1883.54	-----	-724	-1746	-204	-420	-140	469	197	-96	0.808	0.184	1.00	Yes	0.542	0.113	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.43**
		L_6 - L_7	1895.38	-----	-1810	-1375	-526	-173	361	-560	-160	221	0.802	0.194	1.00	Yes	0.533	0.115	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.91**
		L_7 - L_8	1389.43	-----	-1340	-409	-289	414	-599	335	226	-138	0.797	0.197	1.00	Yes	0.523	0.118	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.67**
		L_8 - L_9	1154.13	-----	-1109	340	-54	617	394	-146	-83	180	0.807	0.187	1.00	Yes	0.544	0.117	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.75**
		L_9 - L_{10}	647.38	-789.79	-1018	227	-117	849	-130	-84	135	-176	0.578	0.184	0.77	Yes	0.336	0.115	0.46	Yes	0.835	0.091	0.93	Yes	0.829	0.163	1.00	Yes	1.00	**6.02**
		L_{10} - L_{11}	-----	-762.33	-570	524	28	565	-12	-34	-88	93	-----	-----	-----	-----	-----	-----	-----	-----	0.901	0.067	0.97	Yes	0.895	0.100	1.00	Yes	1.00	**3.71**
		L_{11} - L_{12}	-----	-1028.95	-371	660	-71	1105	-169	-583	89	-335	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.146	1	Yes	0.844	0.151	1.00	Yes	1.00	**3.83**
		L_{12} - L_{13}	-----	-1487.59	-411	-354	-133	-696	-514	-83	-205	56	-----	-----	-----	-----	-----	-----	-----	-----	0.905	0.093	1	Yes	0.897	0.070	0.97	Yes	1.00	**4.59**
		L_{13} - L_{14}	-----	-1504.06	-667	1925	-943	2712	116	231	189	371	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.179	0.95	Yes	0.757	0.237	1.00	Yes	1.00	**3.16**
		L_{14} - L_{15}	-----	-1516.61	1627	-557	2687	-896	322	290	379	222	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.179	0.95	Yes	0.763	0.235	1.00	Yes	1.00	**2.85**
		L_{15} - L_{16}	-----	-1522.38	-334	-89	-686	-243	232	-276	126	25	-----	-----	-----	-----	-----	-----	-----	-----	0.918	0.073	1	Yes	0.911	0.068	0.98	Yes	1.00	**4.38**
		L_{16} - L_{17}	-----	-1166.92	723	-149	1215	-356	-493	-30	-333	-598	-----	-----	-----	-----	-----	-----	-----	-----	0.857	0.139	1	Yes	0.850	0.150	1.00	Yes	1.00	**4.77**
		L_{17} - L_{18}	-----	-849.15	450	-187	650	-251	122	-178	-434	279	-----	-----	-----	-----	-----	-----	-----	-----	0.898	0.078	0.98	Yes	0.892	0.104	1.00	Yes	1.00	**5.45**
		L_{18} - L_{19}	-----	-649.37	299	-210	683	124	-205	151	-239	38	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.107	0.98	Yes	0.865	0.132	1.00	Yes	1.00	**6.04**
		L_{19} - L_{20}	534.83	-582.46	283	-1152	505	285	-553	666	179	-218	0.606	0.324	0.93	Yes	0.358	0.203	0.57	Yes	0.781	0.114	0.9	Yes	0.776	0.222	1.00	Yes	1.00	**7.34**
		L_{20} - L_{21}	968.15	-----	-809	-1000	438	74	7	-717	-189	42	0.772	0.223	1.00	Yes	0.506	0.137	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.98**
		L_{21} - L_{22}	948.01	-----	-593	-1302	182	16	-487	450	143	-190	0.756	0.242	1.00	Yes	0.506	0.153	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.87**
		L_{22} - L_{23}	915.15	-----	-1497	-382	-180	159	448	-52	-34	213	0.730	0.267	1.00	Yes	0.488	0.168	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.62**
		L_{23} - L_{24}	1032.94	-774.29	-876	-386	103	566	-140	441	208	-318	0.824	0.175	1.00	Yes	0.540	0.106	0.65	Yes	0.731	0.115	0.85	Yes	0.726	0.128	0.86	Yes	1.00	**10.71**
		L_{24} - L_{25}	-----	-685.24	-448	179	213	423	-88	82	-153	108	-----	-----	-----	-----	-----	-----	-----	-----	0.919	0.065	0.99	Yes	0.913	0.086	1.00	Yes	1.00	**7.42**
		L_{25} - L_{26}	-----	-653.11	-269	187	28	643	-15	-128	83	-341	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.111	0.99	Yes	0.870	0.124	1.00	Yes	1.00	**5.13**
		L_{26} - L_{27}	-----	-835.22	-331	438	-209	734	-102	38	123	65	-----	-----	-----	-----	-----	-----	-----	-----	0.883	0.087	0.97	Yes	0.877	0.117	1.00	Yes	1.00	**4.78**
		L_{27} - L_{28}	-----	-1126.88	-220	746	-213	1448	56	-203	167	-45	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.142	0.97	Yes	0.821	0.179	1.00	Yes	1.00	**4.08**
		L_{28} - L_{29}	-----	-1508.54	-251	-524	52	-968	-147	28	17	156	-----	-----	-----	-----	-----	-----	-----	-----	0.910	0.087	1	Yes	0.902	0.096	1.00	Yes	1.00	**4.83**
		L_{29} - L_{30}	-----	-1492.21	-731	1910	-1080	2766	114	95	220	362	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.176	0.94	Yes	0.751	0.242	1.00	Yes	1.00	**3.40**
		L_{30} - L_{31}	-----	-1530.80	1747	-548	2536	-875	511	408	241	59	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.180	0.96	Yes	0.770	0.221	1.00	Yes	1.00	**2.18**
		L_{31} - L_{32}	-----	-1511.90	-173	-355	-623	-328	351	-262	-330	-149	-----	-----	-----	-----	-----	-----	-----	-----	0.912	0.082	1	Yes	0.904	0.062	0.97	Yes	1.00	**3.74**
		L_{32} - L_{33}	-----	-1040.87	580	-339	1030	-319	-425	49	82	-6	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.113	0.98	Yes	0.854	0.140	1.00	Yes	1.00	**3.34**
		L_{33} - L_{34}	-----	-760.70	420	-471	586	8	137	-35	90	-135	-----	-----	-----	-----	-----	-----	-----	-----	0.900	0.073	0.98	Yes	0.894	0.103	1.00	Yes	1.00	**4.36**
		L_{34} - L_{35}	654.39	-813.03	-9	-637	879	-77	-213	344	-209	81	0.584	0.182	0.77	Yes	0.340	0.112	0.46	Yes	0.860	0.085	0.95	Yes	0.854	0.141	1.00	Yes	1.00	**7.95**
		L_{35} - L_{36}	1081.46	-----	255	-1236	628	-99	-511	730	160	-135	0.756	0.236	1.00	Yes	0.510	0.149	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.93**
		L_{36} - L_{37}	1375.83	-----	-526	-1474	324	-243	500	-486	-198	148	0.789	0.204	1.00	Yes	0.518	0.121	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.19**
		L_{37} - L_{38}	1817.47	-----	-1605	-1875	-296	-616	-1015	532	117	-181	0.769	0.227	1.00	Yes	0.511	0.137	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.62**
		L_{38} - L_{39}	1845.13	-----	-1863	-700	-564	-213	638	139	-106	174	0.792	0.205	1.00	Yes	0.531	0.127	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.15**
		L_{39} - L_{40}	1807.61	-----	-1379	-945	-404	-297	129	320	134	-117	0.843	0.152	1.00	Yes	0.558	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.56**
		L_{40} - L_{41}	1363.37	-----	-1344	69	-424	28	194	-159	-30	298	0.809	0.184	1.00	Yes	0.546	0.118	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.31**
		L_{41} - L_{42}	1023.20	-----	-1000	203	-230	51	-203	-72	308	136	0.817	0.181	1.00	Yes	0.537	0.105	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.61**
		L_{42} - L_{43}	591.40	-----	-812	316	-244	205	-680	34	163	358	0.718	0.277	1.00	Yes	0.427	0.174	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.39**
		L_{43} - L_{44}	-----	-470.30	-948	243	-531	170	-342	-100	1157	337	-----	-----	-----	-----	-----	-----	-----	-----	0.676	0.324	1	Yes	0.672	0.193	0.87	Yes	1.00	**25.15**
	Structure 3	L_0 - L_1	-----	-446.05	90	-288	305	-635	41	187	-42	-188	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.142	0.96	Yes	0.803	0.190	1.00	Yes	1.00	**5.82**
		L_1 - L_2	522.26	-----	220	-463	317	-390	216	-202	275	24	0.799	0.196	1.00	Yes	0.541	0.124	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.55**
		L_2 - L_3	1015.16	-----	-160	-370	53	-226	-282	171	-16	163	0.884	0.107	1.00	Yes	0.566	0.065	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.07**
		L_3 - L_4	1151.13	-----	118	-1332	50	-430	-345	830	141	61	0.728	0.269	1.00	Yes	0.472	0.167	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.26**
		L_4 - L_5	1626.30	-----	-1272	-920	-378	-263	217	-622	-28	228	0.795	0.197	1.00	Yes	0.510	0.117	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.01**
		L_5 - L_6	1596.02	-----	-562	-1409	-141	-459	-425	621	254	-31	0.780	0.213	1.00	Yes	0.507	0.130	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.28**
		L_6 - L_7	1299.89	-----	-1387	158	-489	236	434	-107	-51	263	0.764	0.227	1.00	Yes	0.495	0.140	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.30**
		L_7 - L_8	1110.19	-----	-539	-181	-89	187	-144	146	145	-198	0.876	0.119	1.00	Yes	0.560	0.071	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.79**
		L_8 - L_9	556.06	-----	-861	414	-143	442	281	-279	-128	194	0.720	0.277	1.00	Yes	0.432	0.181	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.02**
		L_9 - L_{10}	-----	-564.32	-306	210	-61	519	-139	-407	199	-87	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.101	0.97	Yes	0.860	0.137	1.00	Yes	1.00	**7.43**
		L_{10} - L_{11}	-----	-1175.46	-259	290	-230	319	-261	151	-92	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.957	0.026	0.99	Yes	0.946	0.050	1.00	Yes	1.00	**6.05**
		L_{11} - L_{12}	-----	-1272.16	-64	809	-98	1356	227	137	129	68	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.182	1	Yes	0.806	0.180	0.99	Yes	1.00	**3.27**
		L_{12} - L_{13}	-----	-1142.74	762	-35	1298	-65	5	176	-21	28	-----	-----	-----	-----	-----	-----	-----	-----	0.733	0.260	1	Yes	0.724	0.172	0.90	Yes	1.00	**2.42**
		L_{13} - L_{14}	-----	-1148.61	169	-96	206	-241	341	-52	-51	35	-----	-----	-----	-----	-----	-----	-----	-----	0.935	0.057	1	Yes	0.925	0.038	0.97	Yes	1.00	**4.95**
		L_{14} - L_{15}	-----	-715.28	156	-275	565	103	-179	-576	-256	76	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.145	1	Yes	0.839	0.128	0.97	Yes	1.00	**4.96**
		L_{15} - L_{16}	-----	-561.33	176	-512	482	147	-657	532	259	-224	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.134	1	Yes	0.855	0.135	1.00	Yes	1.00	**5.94**
		L_{16} - L_{17}	711.05	-----	-562	-525	323	-54	241	162	-171	196	0.818	0.174	1.00	Yes	0.486	0.112	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.22**
		L_{17} - L_{18}	707.81	-----	-656	-567	46	-95	11	-56	117	-119	0.814	0.177	1.00	Yes	0.471	0.107	0.58	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.91**
		L_{18} - L_{19}	465.58	-----	-725	3	30	-32	-10	290	-93	212	0.713	0.280	1.00	Yes	0.435	0.186	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.22**
		L_{19} - L_{20}	407.42	-144.71	-162	-113	-226	-14	-11	-3	1419	385	0.624	0.372	1.00	Yes	0.367	0.218	0.59	Yes	0.263	0.409	0.68	Yes	0.261	0.068	0.33	Yes	1.00	**49.04**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Verticals	Structure 1	$U_0 - L_0$			-----	-299.48	-8	42	-57	152	232	75	-782	-251	-----	-----	-----	-----	-----	-----	-----	-----	0.669	0.325	1	Yes	0.634	0.195	0.83	Yes	1.00	**2.57**
		$U_1 - L_1$			-----	-306.58	43	-35	-235	227	610	209	-942	-389	-----	-----	-----	-----	-----	-----	-----	-----	0.670	0.327	1	Yes	0.649	0.301	0.95	Yes	1.00	**5.30**
		$U_2 - L_2$			68.55	-133.43	66	-71	-28	59	747	242	-2697	-814	0.123	0.872	1.00	Yes	0.068	0.480	0.55	Yes	0.292	0.668	0.96	Yes	0.282	0.091	0.38	Yes	1.00	**3.99**
		$U_3 - L_3$			234.69	-----	240	-249	27	-14	-869	-739	-681	-153	0.422	0.570	1.00	Yes	0.232	0.314	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.46**
		$U_4 - L_4$			-----	-136.71	84	-86	119	-121	1110	564	-2403	-760	-----	-----	-----	-----	-----	-----	-----	-----	0.301	0.697	1	Yes	0.289	0.155	0.45	Yes	1.00	**6.23**
		$U_5 - L_5$			-----	-362.14	79	-85	181	-199	1102	629	154	212	-----	-----	-----	-----	-----	-----	-----	-----	0.655	0.339	1	Yes	0.625	0.202	0.83	Yes	1.00	**4.44**
		$U_6 - L_6$			-----	-423.93	78	-66	171	-179	1458	726	-1340	-318	-----	-----	-----	-----	-----	-----	-----	-----	0.642	0.352	1	Yes	0.608	0.157	0.77	Yes	1.00	**4.01**
		$U_7 - L_7$			-----	-331.10	124	-139	235	-258	885	226	487	98	-----	-----	-----	-----	-----	-----	-----	-----	0.553	0.441	1	Yes	0.511	0.254	0.77	Yes	1.00	**2.01**
		$U_8 - L_8$			-----	-1260.80	-107	121	-120	138	854	134	-346	-292	-----	-----	-----	-----	-----	-----	-----	-----	0.913	0.080	1	Yes	0.877	0.026	0.91	Yes	1.00	**4.23**
		$U_9 - L_9$			-----	-660.67	-230	262	-408	451	587	221	-450	-124	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.175	0.97	Yes	0.746	0.251	1.00	Yes	1.00	**3.45**
		$U_{10} - L_{10}$			-----	-785.44	-158	155	-349	362	598	275	-751	-277	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.185	1	Yes	0.775	0.188	0.97	Yes	1.00	**5.11**
		$U_{11} - L_{11}$			-----	-662.59	-166	217	-381	481	622	359	-728	-118	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.193	0.99	Yes	0.771	0.223	1.00	Yes	1.00	**4.86**
		$U_{12} - L_{12}$			-----	-424.65	-137	138	-211	227	664	369	-1981	-538	-----	-----	-----	-----	-----	-----	-----	-----	0.613	0.386	1	Yes	0.583	0.194	0.78	Yes	1.00	**3.08**
		$U_{13} - L_{13}$			-----	-312.90	-85	102	-171	198	544	252	-117	153	-----	-----	-----	-----	-----	-----	-----	-----	0.633	0.364	1	Yes	0.599	0.225	0.83	Yes	1.00	**3.99**
		$U_{14} - L_{14}$			-----	-134.02	-41	48	-50	59	637	193	-2636	-446	-----	-----	-----	-----	-----	-----	-----	-----	0.299	0.693	1	Yes	0.284	0.075	0.36	Yes	1.00	**5.77**
		$U_{15} - L_{15}$			-----	-257.85	-31	27	177	-202	456	96	-1319	-419	-----	-----	-----	-----	-----	-----	-----	-----	0.578	0.421	1	Yes	0.546	0.259	0.81	Yes	1.00	**9.05**
		$U_{16} - L_{16}$			-----	-318.92	37	-42	239	-250	485	106	-671	-201	-----	-----	-----	-----	-----	-----	-----	-----	0.719	0.274	1	Yes	0.675	0.320	1.00	Yes	1.00	**7.09**
		$U_{17} - L_{17}$			-----	-417.94	77	-90	198	-219	505	197	-101	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.211	1	Yes	0.721	0.222	0.95	Yes	1.00	**4.44**
		$U_{18} - L_{18}$			-----	-458.14	186	-192	371	-384	689	178	468	134	-----	-----	-----	-----	-----	-----	-----	-----	0.671	0.322	1	Yes	0.637	0.217	0.86	Yes	1.00	**3.23**
		$U_{19} - L_{19}$			-----	-562.57	193	-206	402	-427	602	121	569	95	-----	-----	-----	-----	-----	-----	-----	-----	0.702	0.290	1	Yes	0.655	0.198	0.86	Yes	1.00	**3.80**
		$U_{20} - L_{20}$			-----	-447.74	238	-286	348	-406	438	58	386	51	-----	-----	-----	-----	-----	-----	-----	-----	0.654	0.343	1	Yes	0.573	0.215	0.79	Yes	1.00	**1.90**
	Structure 2	$U_0 - L_0$			-----	-641.26	-155	257	-255	443	60	10	-858	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.228	1	Yes	0.687	0.188	0.88	Yes	1.00	**2.69**
		$U_1 - L_1$			-----	-713.95	-187	195	-548	551	619	151	-436	-109	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.145	0.97	Yes	0.765	0.234	1.00	Yes	1.00	**4.57**
		$U_2 - L_2$			-----	-597.05	-135	150	-433	457	619	266	-389	160	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.175	0.98	Yes	0.761	0.234	1.00	Yes	1.00	**4.15**
		$U_3 - L_3$			-----	-462.57	-65	76	-209	229	546	254	-240	134	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.212	1	Yes	0.725	0.209	0.94	Yes	1.00	**3.51**
		$U_4 - L_4$			-----	-318.52	-3	14	-183	196	574	224	-615	9	-----	-----	-----	-----	-----	-----	-----	-----	0.722	0.273	1	Yes	0.674	0.251	0.93	Yes	1.00	**4.67**
		$U_5 - L_5$			-----	-255.40	89	-84	-135	168	579	168	-1148	-161	-----	-----	-----	-----	-----	-----	-----	-----	0.577	0.417	1	Yes	0.540	0.214	0.76	Yes	1.00	**7.17**
		$U_6 - L_6$			196.73	-----	119	-132	-53	58	598	162	-1632	-366	0.354	0.641	1.00	Yes	0.195	0.352	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.29**
		$U_7 - L_7$			-----	-185.42	97	-113	117	-133	660	147	-2463	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.419	0.574	1	Yes	0.392	0.170	0.57	Yes	1.00	**3.94**
		$U_8 - L_8$			-----	-467.65	167	-186	345	-368	198	-162	-596	-238	-----	-----	-----	-----	-----	-----	-----	-----	0.678	0.178	0.86	Yes	0.674	0.322	1.00	Yes	1.00	**4.64**
		$U_9 - L_9$			-----	-602.56	279	-283	464	-485	932	486	-2001	-474	-----	-----	-----	-----	-----	-----	-----	-----	0.671	0.322	1	Yes	0.646	0.206	0.86	Yes	1.00	**3.64**
		$U_{10} - L_{10}$			-----	-754.07	236	-235	517	-523	1158	715	-215	94	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.252	1	Yes	0.705	0.231	0.94	Yes	1.00	**4.81**
		$U_{11} - L_{11}$			-----	-725.34	227	-219	442	-452	1200	692	392	376	-----	-----	-----	-----	-----	-----	-----	-----	0.730	0.261	1	Yes	0.678	0.199	0.88	Yes	1.00	**4.00**
		$U_{12} - L_{12}$			-----	-728.16	184	-164	365	-356	1482	651	-1128	23	-----	-----	-----	-----	-----	-----	-----	-----	0.699	0.299	1	Yes	0.631	0.157	0.79	Yes	1.00	**3.92**
		$U_{13} - L_{13}$			-----	-627.19	222	-221	490	-475	1148	301	734	266	-----	-----	-----	-----	-----	-----	-----	-----	0.699	0.298	1	Yes	0.605	0.235	0.84	Yes	1.00	**4.10**
		$U_{14} - L_{14}$			-----	-1246.53	-60	52	-58	45	917	-150	-559	-426	-----	-----	-----	-----	-----	-----	-----	-----	0.912	0.088	1	Yes	0.827	0.011	0.84	Yes	1.00	**4.90**
		$U_{15} - L_{15}$			-----	-683.53	-248	261	-630	613	656	57	-677	-160	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.229	1	Yes	0.659	0.301	0.97	Yes	1.00	**4.95**
		$U_{16} - L_{16}$			-----	-616.97	-179	153	-381	365	756	169	-1734	-211	-----	-----	-----	-----	-----	-----	-----	-----	0.713	0.281	1	Yes	0.661	0.162	0.83	Yes	1.00	**3.00**
		$U_{17} - L_{17}$			-----	-646.91	-193	185	-523	529	705	178	-504	6	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.172	0.98	Yes	0.753	0.246	1.00	Yes	1.00	**4.52**
		$U_{18} - L_{18}$			-----	-581.58	-181	179	-455	489	640	193	-608	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.170	0.95	Yes	0.741	0.250	1.00	Yes	1.00	**4.37**
		$U_{19} - L_{19}$			-----	-478.94	-108	106	-285	288	533	165	-726	-51	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.208	0.93	Yes	0.715	0.277	1.00	Yes	1.00	**4.29**
		$U_{20} - L_{20}$			-----	-280.46	-68	72	-122	138	549	169	-1680	-253	-----	-----	-----	-----	-----	-----	-----	-----	0.575	0.424	1	Yes	0.537	0.158	0.70	Yes	1.00	**2.96**
	Structure 3	$U_0 - L_0$			-----	-278.09	-31	33	-163	186	661	111	-1018	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.628	0.363	1	Yes	0.588	0.238	0.83	Yes	1.00	**7.96**
		$U_1 - L_1$			-----	-151.04	16	-19	26	-28	844	269	-2443	-412	-----	-----	-----	-----	-----	-----	-----	-----	0.340	0.654	1	Yes	0.320	0.036	0.36	Yes	1.00	**5.89**
		$U_2 - L_2$			-----	-310.74	35	-39	210	-232	644	239	-696	-200	-----	-----	-----	-----	-----	-----	-----	-----	0.702	0.293	1	Yes	0.658	0.296	0.96	Yes	1.00	**6.25**
		$U_3 - L_3$			-----	-316.25	78	-81	164	-175	634	240	-1073	-136	-----	-----	-----	-----	-----	-----	-----	-----	0.648	0.348	1	Yes	0.606	0.200	0.81	Yes	1.00	**2.61**
		$U_4 - L_4$			-----	-470.54	118	-116	304	-298	716	298	-49	89	-----	-----	-----	-----	-----	-----	-----	-----	0.708	0.212	0.92	Yes	0.703	0.292	1.00	Yes	1.00	**3.59**
		$U_5 - L_5$			-----	-582.43	176	-172	485	-503	853	394	47	215	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.213	0.99	Yes	0.742	0.257	1.00	Yes	1.00	**4.28**
		$U_6 - L_6$			-----	-587.77	195	-189	505	-509	1282	600	330	308	-----	-----	-----	-----	-----	-----	-----	-----	0.725	0.272	1	Yes	0.684	0.236	0.93	Yes	1.00	**4.31**
		$U_7 - L_7$			-----	-617.06	129	-100	397	-381	1679	556	-1504	0	-----	-----	-----	-----	-----	-----	-----	-----	0.713	0.286	1	Yes	0.661	0.169	0.83	Yes	1.00	**4.15**
		$U_8 - L_8$			-----	-608.51	109	-117	600	-597	1261	182	-163	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.678	0.317	1	Yes	0.587	0.287	0.88	Yes	1.00	**5.92**
		$U_9 - L_9$			-----	-1206.07	-222	194	-176	130	786	-421	-632	-403	-----	-----	-----	-----	-----	-----	-----	-----	0.916	0.078	1	Yes	0.830	0.041	0.88	Yes	1.00	**4.59**
		$U_{10} - L_{10}$			-----	-723.28	-302	298	-543	524	485	84	-409	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.193	1	Yes	0.697	0.260	0.96	Yes	1.00	**3.90**
		$U_{11} - L_{11}$			-----	-865.41	-217	193	-468	467	447	146	-560	-57	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.163	1	Yes	0.750	0.201	0.96	Yes	1.00	**4.62**
		$U_{12} - L_{12}$			-----	-819.76	-246	230	-487	495	423	179	-639	10	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.170	1	Yes	0.766	0.219	0.99	Yes	1.00	**4.88**
		$U_{13} - L_{13}$			-----	-776.52	-243	243	-489	526	515	253	-1025	-80	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.232	1	Yes	0.726	0.232	0.96	Yes	1.00	**5.51**
		$U_{14} - L_{14}$			-----	-692.38	-270	274	-529	574	597	302	-1108	-194	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.220	1	Yes	0.742	0.243	0.99	Yes	1.00	**5.94**
		$U_{15} - L_{15}$			-----	-472.32	-151	168	-331	360	558	264	-1154	-159	-----	-----	-----	-----	-----	-----	-----	-----	0.685	0.307	1	Yes	0.680	0.315	1.00	Yes	1.00	**5.54**
		$U_{16} - L_{16}$			-----	-183.96	-77	91	-84	100	486	126	-2545	-25	-----	-----	-----	-----	-----	-----	-----	-----	0.416	0.582	1	Yes	0.389	0.128	0.52	Yes	1.00	**3.68**
		$U_{17} - L_{17}$			176.61	-----	-121	132	131	-136	478	144	-1747	-623	0.318	0.680	1.00	Yes	0.175	0.374	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.49**
		$U_{18} - L_{18}$			152.14	-254.57	-157	172	200	-235	468	147	-1337	-494	0.274	0.688	0.97	Yes	0.150	0.378	0.53	Yes	0.556	0.439	1	Yes	0.539	0.300	0.84	Yes	1.00	**12.02**
		$U_{19} - L_{19}$			-----	-295.53	-28	11	178	-199	437	218	480	237	-----	-----	-----	-----	-----	-----	-----	-----	0.646	0.347	1	Yes	0.625	0.255	0.88	Yes	1.00	**5.57**
		$U_{20} - L_{20}$			-----	-240.17	85	-99	175	-209	596	191	589	189	-----	-----	-----	-----	-----	-----	-----	-----	0.536	0.458	1	Yes	0.508	0.267	0.78	Yes	1.00	**2.46**

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End																					
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass					
South Truss - Diagonals	Structure 1	$U_0 - L_1$	563.28	-----	4	32	3	-15	-863	-482	135	200	0.739	0.255	1.00	Yes	0.446	0.140	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**6.16**
		$U_1 - L_2$	355.32	-----	-91	-5	19	-18	-830	-782	452	256	0.639	0.357	1.00	Yes	0.351	0.196	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**5.75**
		$U_2 - L_3$	-----	-249.27	-39	-23	-12	-49	-358	-229	-1559	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.574	0.424	1	Yes	0.527	0.062	0.59	Yes				1.00	**5.48**
		$U_3 - L_4$	-----	-371.65	7	-26	36	-55	-51	-106	-373	-57	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.148	1	Yes	0.786	0.070	0.86	Yes				1.00	**4.89**
		$U_4 - L_4$	562.43	-----	-64	96	-21	33	304	192	-200	11	0.825	0.168	1.00	Yes	0.454	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**6.61**
		$U_4 - L_5$	642.03	-----	-118	279	-8	117	177	349	-413	140	0.759	0.234	1.00	Yes	0.417	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**7.03**
		$U_5 - L_6$	620.66	-----	-266	253	-37	93	124	604	-569	38	0.734	0.261	1.00	Yes	0.404	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**6.47**
		$U_6 - L_7$	635.71	-----	-42	361	23	103	141	-33	-214	-132	0.752	0.245	1.00	Yes	0.413	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**5.82**
		$U_8 - L_9$	940.53	-----	-78	370	14	187	-605	-371	544	269	0.752	0.242	1.00	Yes	0.466	0.137	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**5.63**
		$U_9 - L_{10}$	946.24	-----	-291	247	-115	127	-879	-568	547	233	0.756	0.241	1.00	Yes	0.469	0.137	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**5.17**
		$U_{10} - L_{11}$	927.66	-----	-212	210	-83	94	-838	-680	165	-23	0.784	0.208	1.00	Yes	0.485	0.119	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**5.52**
		$U_{11} - L_{12}$	745.73	-----	-234	85	-96	47	-832	-1002	148	-37	0.738	0.259	1.00	Yes	0.406	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.55**
		$U_{12} - L_{13}$	568.06	-----	-204	141	-83	61	-649	-582	121	-16	0.692	0.305	1.00	Yes	0.436	0.174	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**6.16**
		$U_{13} - L_{14}$	349.81	-----	-83	13	-32	10	-902	-878	188	3	0.629	0.368	1.00	Yes	0.346	0.202	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**6.87**
		$U_{15} - L_{14}$	314.22	-189.91	-124	-37	31	-51	942	-347	-343	-186	0.565	0.431	1.00	Yes	0.311	0.237	0.55	Yes	0.445	0.459	0.91	Yes	0.402	0.158	0.56	Yes				1.00	**15.14**
		$U_{16} - L_{15}$	390.42	-----	-155	88	-12	-8	323	27	-299	-125	0.702	0.292	1.00	Yes	0.386	0.161	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**9.46**
		$U_{17} - L_{16}$	525.26	-----	-148	95	-44	21	91	-2	-311	-110	0.770	0.223	1.00	Yes	0.424	0.122	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**5.57**
		$U_{18} - L_{17}$	617.96	-----	-338	254	-128	86	74	55	-406	-118	0.731	0.265	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**6.18**
		$U_{19} - L_{18}$	696.36	-----	-330	249	-129	94	-91	49	-461	-207	0.754	0.245	1.00	Yes	0.415	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**6.51**
		$U_{20} - L_{19}$	680.78	-----	-415	332	-182	146	-180	-137	-272	-141	0.737	0.257	1.00	Yes	0.406	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.69**
	Structure 2	$U_0 - L_1$	717.03	-----	-188	278	-97	121	-1075	-356	-125	20	0.709	0.290	1.00	Yes	0.390	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**3.96**
		$U_1 - L_2$	705.80	-----	-382	291	-151	107	-791	-572	171	-6	0.698	0.295	1.00	Yes	0.384	0.162	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**3.82**
		$U_2 - L_3$	579.11	-----	-310	248	-104	76	-767	-545	156	-2	0.685	0.314	1.00	Yes	0.377	0.173	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**3.78**
		$U_3 - L_4$	513.50	-----	-166	109	-45	19	-755	-482	193	28	0.684	0.310	1.00	Yes	0.376	0.171	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**3.79**
		$U_4 - L_5$	310.41	-----	-124	71	13	-25	-945	-456	270	60	0.558	0.433	1.00	Yes	0.307	0.238	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**5.68**
		$U_5 - L_6$	243.79	-239.49	-84	2	69	-69	-1413	-497	403	128	0.438	0.516	0.96	Yes	0.241	0.284	0.53	Yes	0.566	0.430	1	Yes	0.507	0.107	0.62	Yes				1.00	**8.57**
		$U_6 - L_7$	-----	-378.72	-3	-44	41	-102	-253	-555	-625	-181	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.185	1	Yes	0.726	0.116	0.85	Yes				1.00	**7.02**
		$U_8 - L_7$	536.73	-----	-204	109	-96	59	-33	609	-534	-572	0.684	0.307	1.00	Yes	0.431	0.175	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**5.41**
		$U_8 - L_9$	718.73	-----	-346	235	-166	141	144	-15	-238	-22	0.778	0.216	1.00	Yes	0.428	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.38**
		$U_{10} - L_9$	788.47	-----	-276	251	-138	138	84	550	-163	83	0.780	0.210	1.00	Yes	0.429	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.05**
		$U_{11} - L_{10}$	874.78	-----	-350	296	-132	169	194	328	-387	176	0.797	0.201	1.00	Yes	0.438	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.55**
		$U_{12} - L_{11}$	841.47	-----	-340	343	-128	177	-61	251	-598	64	0.767	0.227	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.29**
		$U_{13} - L_{12}$	733.37	-----	-418	384	-157	162	-239	164	-532	-6	0.726	0.273	1.00	Yes	0.399	0.150	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.39**
		$U_{14} - L_{13}$	775.87	-----	-274	441	-8	119	-128	65	-157	-117	0.768	0.228	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**6.94**
		$U_{14} - L_{15}$	591.46	-----	-187	345	8	151	-320	-115	568	259	0.699	0.298	1.00	Yes	0.385	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.76**
		$U_{15} - L_{16}$	580.88	-----	-344	317	-155	150	59	-361	599	195	0.687	0.303	1.00	Yes	0.378	0.167	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**3.20**
		$U_{16} - L_{17}$	670.11	-----	-319	348	-113	158	-393	-288	538	210	0.726	0.267	1.00	Yes	0.399	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.10**
		$U_{17} - L_{18}$	623.63	-----	-279	277	-100	142	-491	-317	522	180	0.737	0.253	1.00	Yes	0.406	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**3.84**
		$U_{18} - L_{19}$	602.23	-----	-275	247	-77	109	-680	-477	366	146	0.712	0.279	1.00	Yes	0.392	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.46**
		$U_{19} - L_{20}$	511.06	-----	-181	124	-45	62	-694	-891	383	170	0.652	0.344	1.00	Yes	0.358	0.198	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.55**
		$U_{20} - L_{21}$	351.99	-----	-114	96	-15	25	-741	-329	416	222	0.633	0.360	1.00	Yes	0.348	0.198	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**7.10**
		$U_{21} - L_{22}$	235.47	-----	-83	24	-24	-79	-1054	-434	-1623	-653	0.424	0.576	1.00	Yes	0.233	0.317	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**9.38**
		$U_{23} - L_{22}$	371.61	-----	-123	37	2	22	572	-77	-260	48	0.668	0.323	1.00	Yes	0.368	0.178	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**8.74**
		$U_{24} - L_{23}$	418.71	-----	-132	104	-19	37	268	91	-219	-6	0.753	0.246	1.00	Yes	0.414	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**5.85**
		$U_{25} - L_{24}$	564.47	-----	-180	165	-43	77	128	569	-262	-33	0.720	0.277	1.00	Yes	0.396	0.158	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.06**
		$U_{26} - L_{25}$	661.36	-----	-260	293	-64	124	282	249	-226	-1	0.782	0.217	1.00	Yes	0.430	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.40**
		$U_{27} - L_{26}$	628.05	-----	-265	305	-82	129	103	270	-431	140	0.743	0.251	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.04**
		$U_{28} - L_{27}$	654.67	-----	-279	348	-71	128	-55	218	-632	31	0.709	0.282	1.00	Yes	0.390	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.33**
		$U_{29} - L_{28}$	581.17	-----	-341	320	-63	79	8	573	-636	-77	0.687	0.308	1.00	Yes	0.378	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.70**
		$U_{30} - L_{29}$	582.09	-----	-140	377	62	38	537	95	-289	-251	0.688	0.311	1.00	Yes	0.379	0.171	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**6.89**
		$U_{30} - L_{31}$	723.04	-----	-257	434	-45	222	-467	-241	507	232	0.715	0.277	1.00	Yes	0.393	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.63**
		$U_{31} - L_{32}$	735.88	-----	-426	378	-224	211	-428	-249	474	139	0.728	0.269	1.00	Yes	0.400	0.148	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**3.46**
		$U_{32} - L_{33}$	820.45	-----	-338	331	-154	193	-756	-528	305	82	0.747	0.247	1.00	Yes	0.411	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.03**
		$U_{33} - L_{34}$	803.64	-----	-316	258	-140	167	-947	-663	266	65	0.732	0.264	1.00	Yes	0.403	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.00**
		$U_{34} - L_{35}$	725.08	-----	-296	209	-138	136	-946	-633	112	-42	0.717	0.279	1.00	Yes	0.395	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.31**
		$U_{35} - L_{36}$	637.92	-----	-307	198	-160	131	-868	-522	128	-9	0.691	0.300	1.00	Yes	0.380	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.18**
		$U_{36} - L_{37}$	513.70	-----	-174	143	-82	64	-914	-608	90	-69	0.655	0.342	1.00	Yes	0.412	0.197	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**7.32**
		$U_{38} - L_{37}$	-----	-352.12	-55	-65	33	-91	115	542	364	-93	-----	-----	-----	-----	-----	-----	-----	-----	0.761	0.234	1	Yes	0.675	0.104	0.78	Yes				1.00	**7.37**
		$U_{39} - L_{38}$	378.59	-212.31	-124	41	60	-66	548	-90	-365	-80	0.681	0.318	1.00	Yes	0.375	0.175	0.55	Yes	0.506	0.315	0.83	Yes	0.449	0.159	0.61	Yes				1.00	**9.09**
		$U_{40} - L_{39}$	394.55	-----	-140	90	3	-16	156	40	-378	-100	0.710	0.288	1.00	Yes	0.390	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**5.84**
		$U_{41} - L_{40}$	558.49	-----	-178	125	-51	25	6	6	-413	-181	0.744	0.249	1.00	Yes	0.409	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.14**
		$U_{42} - L_{41}$	619.08	-----	-326	262	-113	83	-34	36	-409	-173	0.732	0.259	1.00	Yes	0.403	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.25**
		$U_{43} - L_{42}$	771.93	-----	-375	309	-125	93	-90	84	-388	-200	0.764	0.232	1.00	Yes	0.420	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**5.43**
		$U_{44} - L_{43}$	787.75	-----	-404	382	-169	149	52	57	-210	-92	0.779	0.219	1.00	Yes	0.429	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**5.76**
	Structure 3	$U_0 - L_1$	648.32	-----	-179	233	-79	104	-1027	-374	-144	2	0.702	0.288	1.00	Yes	0.386	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.07**
		$U_1 - L_2$	637.67	-----	-339	243	-159	108	-804	-541	162	-42	0.691	0.306	1.00	Yes	0.380	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**3.85**
		$U_2 - L_3$	561.91	-----	-303	240	-125	86	-873	-618	129	-29	0.664	0.330	1.00	Yes	0.365	0.181	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.12**
		$U_3 - L_4$	460.79	-----	-133	73	-43	21	-670	-805	150	-28	0.676	0.323	1.00	Yes	0.372	0.178	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**3.74**
		$U_4 - L_5$	280.59	-----	-140	64	-1	-14	-1088	-672	271	53	0.505	0.493	1.00	Yes	0.278	0.271	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**10.11**
		$U_5 - L_6$	-----	-210.44	-36	-71	18	-105	-717	-702	-1073	-422	-----	-----	-----	-----	-----	-----	-----	-----	0.493	0.503	1	Yes	0.445	0.134	0.58	Yes				1.00	**6.77**
		$U_7 - L_6$	441.08	-----	-96	43	-38	12	153	-131	-286	-163	0.793	0.206	1.00	Yes	0.436	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**5.42**
		$U_8 - L_7$	633.58	-----	-204	166	-93	70	248	115	-241	-103	0.772	0.227	1.00	Yes	0.486	0.128	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**5.98**
		$U_8 - L_9$	830.51	-----	-231	155	-81	64	435	379	-364	106	0.822	0.172	1.00	Yes	0.452	0.095	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**6.70**
		$U_{10} - L_9$	959.77	-----	-187	247	-56	101	469	511	-423	141	0.811	0.181	1.00	Yes	0.502	0.102	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**7.38**
		$U_{11} - L_{10}$	929.72	-----	-281	256	-82	106	517	996	-538	-34	0.743	0.252	1.00	Yes	0.460	0.144	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**6.33**
		$U_{12} - L_{11}$	954.28	-----	-23	408	14	142	417	282	-423	-86	0.763	0.236	1.00	Yes	0.473	0.132	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**5.65**
		$U_{12} - L_{13}$	602.19	-----	-87	299	12	163	-277	-224	620	351	0.712	0.283	1.00	Yes	0.392	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.77**
		$U_{13} - L_{14}$	597.97	-----	-279	215	-98	130	-446	-566	724	322	0.707	0.290	1.00	Yes	0.389	0.160	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.30**
		$U_{14} - L_{15}$	505.53	-----	-150	211	-56	101	-1504	-242	264	55	0.598	0.393	1.00	Yes	0.329	0.216	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**4.67**
		$U_{15} - L_{16}$	532.69	-----	-75	61	-25	29	-405	-588	216	52	0.781	0.213	1.00	Yes	0.430	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**7.38**
		$U_{17} - L_{16}$	-----	-329.90	-19	-48	39	-24	-119	30	-473	-116	-----	-----	-----	-----	-----	-----	-----	-----	0.754	0.237	1	Yes	0.698	0.061	0.76	Yes				1.00	**6.51**
		$U_{18} - L_{17}$	-----	-349.40	-112	-11	69	-43	283	-120	-204	-65	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.194	1	Yes	0.739	0.143	0.89	Yes				1.00	**13.67**
		$U_{19} - L_{18}$	460.62	-----	-84	6	40	-30	109	53	-207	-118	0.828	0.167	1.00	Yes	0.456	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**11.75**
		$U_{20} - L_{19}$	619.65	-----	-143	81	-29	2	-3	23	-70	-5	0.813	0.184	1.00	Yes	0.491	0.102	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----				1.00	**7.65**

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Artic
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Location		Member	Member Forces from STAAD D (kips)	LL+ (kips)	LL- (kips)	Pedestrian Load+	Pedestrian Load-	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL+	Lane Reduction and Impact LL-	Impact & Pedestrian Load+	Impact & Pedestrian Load-	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A_{deduct} (in²) **	A_{gross} (in²)	A_{net} (in²)	$C_{Nominal}$ (kips)	Member Capacity in Compression: C_c	L (feet)	r_{min} (in)	KL/r_{min} ***	F_{crit} **** (ksi)	$C_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Upper Chord	Structure 1	U_1 - U_1	-71.60	-9.14	-34.86			0.90	1.00	-8.22	-31.38	0.00	0.00	Vehicle	Vehicle	-----	-161.07	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	9.44	15.74
		U_1 - U_2	-90.76	38.61	-95.11			0.90	1.00	34.75	-85.60	0.00	0.00	Vehicle	Vehicle	-----	-303.44	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	3.33	5.54
		U_1 - U_3	-61.05	57.17	-119.47			0.90	1.00	51.45	-107.52	0.00	0.00	Vehicle	Vehicle	32.12	-312.32	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	8.54	14.23	2.81	4.69
		U_1 - U_4	10.82	74.66	-124.49			0.90	1.00	67.20	-112.04	0.00	0.00	Vehicle	Vehicle	159.65	-228.69	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	5.90	9.83	3.09	5.14
		U_1 - U_5	12.98	75.06	-123.96			0.90	1.00	67.55	-111.56	0.00	0.00	Vehicle	Vehicle	163.23	-224.84	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	5.85	9.74	3.11	5.18
		U_2 - U_2	121.44	86.50	-79.60			0.90	1.00	77.85	-71.64	0.00	0.00	Vehicle	Vehicle	326.54	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	4.24	7.06	-----	-----
		U_2 - U_7	249.52	95.39	-28.02			0.90	1.00	85.85	-25.22	0.00	0.00	Vehicle	Vehicle	510.39	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	3.88	6.46	-----	-----
		U_2 - U_8	376.85	97.08	30.40			0.90	1.00	87.37	27.36	0.00	0.00	Vehicle	Vehicle	679.20	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	5.04	8.39	-----	-----
		U_3 - U_9	319.70	122.36	0.00			0.90	1.00	110.12	0.00	0.00	0.00	Vehicle	Vehicle	654.20	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	3.37	5.62	-----	-----
		U_{10} - U_{10}	128.80	58.78	0.00			0.90	1.00	52.90	0.00	0.00	0.00	Vehicle	Vehicle	282.06	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	-----	-----	42.67	-----	-----	10.67	-----	-----	6.58	10.97	-----	-----
		U_{10} - U_{11}	-70.81	-10.04	0.00			0.90	1.00	0.00	-9.03	0.00	0.00	Vehicle	Vehicle	-----	-111.63	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	34.98	58.30
		U_{11} - U_{12}	-252.85	61.59	-31.23			0.90	1.00	55.43	-28.11	0.00	0.00	Vehicle	Vehicle	-----	-389.61	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	11.95	19.91
		U_{12} - U_{13}	-391.81	53.31	-185.74			0.90	1.00	47.98	-167.16	0.00	0.00	Vehicle	Vehicle	-----	-871.53	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	44.61	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	2.68	4.46
		U_{13} - U_{14}	-482.83	44.84	-219.83			0.90	1.00	40.36	-197.85	0.00	0.00	Vehicle	Vehicle	-----	-1056.35	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.73	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.56	4.27
		U_{14} - U_{15}	-484.28	44.68	-219.96			0.90	1.00	40.21	-197.96	0.00	0.00	Vehicle	Vehicle	-----	-1058.49	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.69	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.56	4.26
		U_{15} - U_{16}	-501.86	34.35	-207.32			0.90	1.00	30.92	-186.59	0.00	0.00	Vehicle	Vehicle	-----	-1056.69	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.73	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.66	4.43
		U_{16} - U_{17}	-467.82	15.90	-179.29			0.90	1.00	14.31	-161.36	0.00	0.00	Vehicle	Vehicle	-----	-957.79	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.20	5.33
		U_{17} - U_{18}	-368.70	15.40	-130.34			0.90	1.00	13.86	-117.30	0.00	0.00	Vehicle	Vehicle	-----	-733.47	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	44.92	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	3.08	5.13
		U_{18} - U_{19}	-251.42	7.65	-79.55			0.90	1.00	6.88	-71.59	0.00	0.00	Vehicle	Vehicle	-----	-481.96	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	3.57	5.95
		U_{19} - U_{20}	-117.77	1.58	-28.39			0.90	1.00	1.42	-25.55	0.00	0.00	Vehicle	Vehicle	-----	-208.46	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	13.14	21.90
	Structure 2	U_1 - U_1	-118.16	-14.08	-30.92			0.90	1.00	-12.67	-27.83	0.00	0.00	Vehicle	Vehicle	-----	-213.90	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	11.41	19.02
		U_1 - U_2	-239.45	-97.86	-13.43			0.90	1.00	-12.08	-88.07	0.00	0.00	Vehicle	Vehicle	-----	-502.10	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.76	6.27
		U_1 - U_5	-350.29	-51.58	-89.99			0.90	1.00	-46.42	-80.99	0.00	0.00	Vehicle	Vehicle	-----	-630.85	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.69	4.00	0.69	16.00	99.35	272.00	30.22	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	5.39	8.98
		U_1 - U_6	-448.96	31.53	-199.01			0.90	1.00	28.38	-179.11	0.00	0.00	Vehicle	Vehicle	-----	-977.72	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.99	4.98
		U_1 - U_7	-483.05	36.33	-236.32			0.90	1.00	35.37	-212.69	0.00	0.00	Vehicle	Vehicle	-----	-1088.78	14.15	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.83	4.72
		U_1 - U_8	-485.65	82.93	-264.90			0.90	1.00	74.63	-238.41	0.00	0.00	Vehicle	Vehicle	-----	-1147.88	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.33	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.52	4.20
		U_2 - U_7	-428.66	97.82	-270.01			0.90	1.00	88.04	-243.01	0.00	0.00	Vehicle	Vehicle	-----	-1083.78	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	43.32	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.25	3.76
		U_2 - U_8	-428.18	98.05	-269.73			0.90	1.00	88.24	-242.76	0.00	0.00	Vehicle	Vehicle	-----	-1082.61	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	43.35	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.26	3.76
		U_3 - U_9	-335.25	111.96	-241.10			0.90	1.00	100.77	-216.99	0.00	0.00	Vehicle	Vehicle	-----	-905.96	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	43.42	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	2.19	3.64
		U_9 - U_{10}	-200.15	120.62	-191.29			0.90	1.00	108.55	-172.16	0.00	0.00	Vehicle	Vehicle	-----	-633.22	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	2.39	3.98
		U_{10} - U_{11}	-52.03	127.56	-133.70			0.90	1.00	114.80	-120.33	0.00	0.00	Vehicle	Vehicle	181.09	-328.35	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	5.03	8.39	3.58	5.96
		U_{11} - U_{12}	107.09	126.68	-68.59			0.90	1.00	114.01	-61.73	0.00	0.00	Vehicle	Vehicle	386.24	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	4.23	7.05	-----	-----
		U_{12} - U_{13}	259.37	124.99	-7.88			0.90	1.00	112.49	-7.09	0.00	0.00	Vehicle	Vehicle	580.91	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	4.69	7.82	-----	-----
		U_{13} - U_{14}	391.99	117.33	48.27			0.90	1.00	105.60	43.44	0.00	0.00	Vehicle	Vehicle	738.37	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	6.66	11.10	-----	-----
		U_{14} - U_{15}	439.40	186.59	-2.52			0.90	1.00	167.93	-2.27	0.00	0.00	Vehicle	Vehicle	935.07	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.02	6.70	-----	-----
		U_{15} - U_{16}	369.68	72.42	27.18			0.90	1.00	65.18	24.46	0.00	0.00	Vehicle	Vehicle	621.81	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	8.31	13.85	-----	-----
		U_{16} - U_{17}	271.42	88.26	0.00			0.90	1.00	79.44	0.00	0.00	0.00	Vehicle	Vehicle	524.96	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	5.84	9.73	-----	-----
		U_{17} - U_{18}	171.80	25.85	-7.65			0.90	1.00	23.27	-6.89	0.00	0.00	Vehicle	Vehicle	273.75	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	15.33	25.55	-----	-----
		U_{18} - U_{19}	72.84	110.22	-15.09			0.90	1.00	99.19	-13.58	0.00	0.00	Vehicle	Vehicle	309.61	-----	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	4.19	6.99	-----	-----
		U_{19} - U_{20}	-8.04	113.48	-92.32			0.90	1.00	102.13	-83.09	0.00	0.00	Vehicle	Vehicle	210.82	-190.48	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	4.87	8.11	4.94	8.24
		U_{20} - U_{21}	-60.07	114.69	-104.32			0.90	1.00	103.22	-93.89	0.00	0.00	Vehicle	Vehicle	145.55	-281.52	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.11	10.19	4.96	8.27
		U_{21} - U_{22}	-82.15	115.46	-200.71			0.90	1.00	103.91	-180.64	0.00	0.00	Vehicle	Vehicle	118.35	-498.19	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.20	10.33	2.51	4.18
		U_{22} - U_{23}	-82.37	115.57	-200.74			0.90	1.00	104.01	-180.67	0.00	0.00	Vehicle	Vehicle	118.27	-498.53	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.20	10.33	2.51	4.18
		U_{23} - U_{24}	-65.94	113.96	-89.69			0.90	1.00	102.56	-80.72	0.00	0.00	Vehicle	Vehicle	136.50	-260.60	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.19	10.31	5.73	9.55
		U_{24} - U_{25}	-11.98	111.75	-155.98			0.90	1.00	100.57	-140.39	0.00	0.00	Vehicle	Vehicle	194.52	-327.55	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	5.00	8.33	2.88	4.81
		U_{25} - U_{26}	54.95	107.17	-109.28			0.90	1.00	96.45	-98.35	0.00	0.00	Vehicle	Vehicle	280.42	-141.66	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	4.42	7.37	4.28	7.14
		U_{26} - U_{27}	135.89	102.60	18.11			0.90	1.00	92.34	16.30	0.00	0.00	Vehicle	Vehicle	376.73	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	4.10	6.83	-----	-----
		U_{27} - U_{28}	216.69	96.02	-3.21			0.90	1.00	86.42	-2.89	0.00	0.00	Vehicle	Vehicle	468.94	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	5.74	9.57	-----	-----
		U_{28} - U_{29}	293.53	89.84	18.47			0.90	1.00	80.86	16.62	0.00	0.00	Vehicle	Vehicle	556.78	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	7.26	12.11	-----	-----
		U_{29} - U_{30}	357.86	36.80	90.48			0.90	1.00	81.43	33.12	0.00	0.00	Vehicle	Vehicle	641.64	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	8.89	14.82	-----	-----
		U_{30} - U_{31}	339.12	194.11	0.00			0.90	1.00	174.70	0.00	0.00	0.00	Vehicle	Vehicle	819.37	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.21	7.01	-----	-----
		U_{31} - U_{32}	251.34	44.01	-11.51			0.90	1.00	39.61	-10.36	0.00	0.00	Vehicle	Vehicle	412.56	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane — Fy = 33.0 ksi — DL Factor: 1.30 — DL Factor: 1.30
Condition: As-Inspected — Fu = 60.0 ksi — LL Factor: 2.17 — LL Factor: 1.63
E = 29000.0 ksi

Vehicle Load Factors | Pedestrian Load Factors

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Axial Force Rating

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Lower Chord	Structure 1																																													
	L_0- L_1	4.73	-1.20	-3.19			0.90	1.00	-1.08	-2.87	0.00	0.00	Vehicle	Vehicle	3.80	-0.08	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	-----	-----	**89.50**	**149.17**
	L_1 - L_2	74.19	19.89	30.36			0.90	1.00	27.32	17.90	0.00	0.00	Vehicle	Vehicle	155.64	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**9.41**	**15.68**	-----	-----
	L_2 - L_3	97.64	-42.59	90.41			0.90	1.00	81.37	-38.33	0.00	0.00	Vehicle	Vehicle	303.22	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**4.21**	**7.02**	-----	-----
	L_3 - L_4	66.79	-61.05	114.41			0.90	1.00	102.97	-54.95	0.00	0.00	Vehicle	Vehicle	309.91	-32.23	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	**3.51**	**5.85**	**6.88**	**11.46**
	L_4 - L_5	-108.59	-91.01	75.24			0.90	1.00	67.71	-81.91	0.00	0.00	Vehicle	Vehicle	5.54	-318.63	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	**6.23**	**10.38**	**2.87**	**4.78**
	L_5 - L_6	-237.42	-100.10	23.48			0.90	1.00	21.13	-90.09	0.00	0.00	Vehicle	Vehicle	-----	-503.85	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	44.64	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**2.81**	**4.68**
	L_6 - L_7	-362.38	-105.00	-35.29			0.90	1.00	-31.76	-94.50	0.00	0.00	Vehicle	Vehicle	-----	-675.84	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.70**	**6.16**
	L_7 - L_8	-478.62	-39.11	-87.49			0.90	1.00	-35.20	-78.74	0.00	0.00	Vehicle	Vehicle	-----	-792.81	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**5.49**	**9.15**
	L_8 - L_9	-476.97	-195.30	0.00			0.90	1.00	0.00	-175.77	0.00	0.00	Vehicle	Vehicle	-----	-1000.89	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	42.75	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**2.47**	**4.11**
	L_9 - L_{10}	-301.47	-62.68	-75.86			0.90	1.00	-56.41	-68.27	0.00	0.00	Vehicle	Vehicle	-----	-539.83	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**5.66**	**9.43**
	L_{10} - L_{11}	-104.56	-79.84	0.00			0.90	1.00	0.00	-71.86	0.00	0.00	Vehicle	Vehicle	-----	-291.62	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**3.31**	**5.51**
	L_{11} - L_{12}	96.98	-10.19	0.00			0.90	1.00	0.00	-9.17	0.00	0.00	Vehicle	Vehicle	126.08	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	-----	-----	-----	-----
	L_{12} - L_{13}	268.60	-53.57	101.37			0.90	1.00	91.24	-48.21	0.00	0.00	Vehicle	Vehicle	546.86	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.64**	**7.74**	-----	-----
	L_{13} - L_{14}	405.49	104.85	0.00			0.90	1.00	94.36	0.00	0.00	0.00	Vehicle	Vehicle	731.59	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.74**	**9.56**	-----	-----
	L_{14} - L_{15}	502.59	-25.90	164.38			0.90	1.00	147.94	-22.95	0.00	0.00	Vehicle	Vehicle	973.92	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.35**	**7.25**	-----	-----
	L_{15} - L_{16}	469.06	-16.06	136.38			0.90	1.00	122.74	-14.45	0.00	0.00	Vehicle	Vehicle	875.72	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.40**	**9.01**	-----	-----
	L_{16} - L_{17}	365.26	-13.15	80.97			0.90	1.00	72.88	-11.83	0.00	0.00	Vehicle	Vehicle	632.73	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.01**	**11.68**	-----	-----
	L_{17} - L_{18}	248.52	2.57	30.08			0.90	1.00	27.07	2.32	0.00	0.00	Vehicle	Vehicle	381.73	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	**14.07**	**23.45**	-----	-----
	L_{18} - L_{19}	112.87	-2.77	-25.12			0.90	1.00	-2.49	-22.61	0.00	0.00	Vehicle	Vehicle	141.33	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	-----	-----	-----	-----
	L_{19} - L_{20}	-14.36	14.09	-70.95			0.90	1.00	12.68	-63.85	0.00	0.00	Vehicle	Vehicle	8.80	-157.01	1.95	19.80	17.8500	653.40	131.71	10.8073	5.6265	17.41	32.71	-550.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	**24.47**	**40.78**	**3.84**	**6.41**
	Structure 2																																												
	L_0- L_1	15.25	-10.39	-0.38			0.90	1.00	-0.34	-9.35	0.00	0.00	Vehicle	Vehicle	19.08	-0.43	1.88	24.95	23.0700	823.35	131.71	10.8828	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	45.00	Pass	6.32	12.00	Pass	6.32	12.00	Pass	-----	-----	**35.31**	**58.86**
	L_1 - L_2	136.09	37.43	-9.49			0.90	1.00	33.69	-8.54	0.00	0.00	Vehicle	Vehicle	249.91	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**8.86**	**14.76**	-----	-----
	L_2 - L_3	262.77	79.26	-19.36			0.90	1.00	71.33	-17.42	0.00	0.00	Vehicle	Vehicle	496.15	-----	6.20	37.95	31.7500	1252.35	131.71	10.7370	6.1375	15.74	32.76	-1056.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	**5.89**	**9.82**	-----	-----
	L_3 - L_4	373.14	68.24	71.97			0.90	1.00	64.77	61.41	0.00	0.00	Vehicle	Vehicle	625.43	-----	9.45	51.08	41.6250	1685.48	131.71	10.7370	5.7282	16.87	32.73	-1420.90	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	**8.55**	**14.26**	-----	-----
	L_4 - L_5	456.57	-27.84	90.84			0.90	1.00	81.76	-25.05	0.00	0.00	Vehicle	Vehicle	770.68	-----	11.08	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.93	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	**8.76**	**14.60**	-----	-----
	L_5 - L_6	489.37	-55.11	215.32			0.90	1.00	193.79	-58.60	0.00	0.00	Vehicle	Vehicle	1056.06	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.04**	**6.73**	-----	-----
	L_6 - L_7	479.01	-82.23	242.57			0.90	1.00	218.31	-74.00	0.00	0.00	Vehicle	Vehicle	1095.71	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	**3.68**	**6.13**	-----	-----
	L_7 - L_8	330.07	-110.67	219.32			0.90	1.00	197.39	-99.60	0.00	0.00	Vehicle	Vehicle	856.77	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	**3.07**	**5.12**	-----	-----
	L_8 - L_9	188.98	-119.56	168.59			0.90	1.00	151.73	-107.61	0.00	0.00	Vehicle	Vehicle	574.41	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	**3.60**	**6.00**	-----	-----
	L_9 - L_{10}	39.77	-126.66	110.68			0.90	1.00	99.61	-113.99	0.00	0.00	Vehicle	Vehicle	267.52	-195.28	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	**4.95**	**8.25**	**4.04**	**6.73**
	L_{10} - L_{11}	-127.39	-127.70	44.50			0.90	1.00	40.05	-114.93	0.00	0.00	Vehicle	Vehicle	-----	-414.62	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.76	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.73**	**4.55**
	L_{11} - L_{12}	-282.64	-126.18	-17.26			0.90	1.00	-15.53	-113.56	0.00	0.00	Vehicle	Vehicle	-----	-613.49	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.42**	**5.71**
	L_{12} - L_{13}	-426.73	-122.51	-74.13			0.90	1.00	-66.72	-110.26	0.00	0.00	Vehicle	Vehicle	-----	-793.64	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**4.62**	**7.70**
	L_{13} - L_{14}	-536.42	-6.20	-254.54			0.90	1.00	-5.58	-229.09	0.00	0.00	Vehicle	Vehicle	-----	-1193.71	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.91	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.56**	**4.27**
	L_{14} - L_{15}	-537.75	-256.59	-15.61			0.90	1.00	-14.05	-230.93	0.00	0.00	Vehicle	Vehicle	-----	-1199.43	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.81	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.54**	**4.23**
	L_{15} - L_{16}	-475.65	-107.78	-97.18			0.90	1.00	-87.44	-97.01	0.00	0.00	Vehicle	Vehicle	-----	-828.52	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**4.95**	**8.24**
	L_{16} - L_{17}	-384.35	-179.16	0.00			0.90	1.00	0.00	-161.24	0.00	0.00	Vehicle	Vehicle	-----	-849.02	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	43.28	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.47**	**4.11**
	L_{17} - L_{18}	-281.86	-120.16	-45.04			0.90	1.00	-40.54	-108.15	0.00	0.00	Vehicle	Vehicle	-----	-600.73	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	42.85	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.47**	**4.12**
	L_{18} - L_{19}	-175.17	-84.00	28.73			0.90	1.00	25.86	-75.60	0.00	0.00	Vehicle	Vehicle	-----	-391.52	1.25	26.75	25.5000	882.75	131.71	10.6406	5.6472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.16**	**5.27**
	L_{19} - L_{20}	-76.53	-86.56	49.87			0.90	1.00	44.88	-77.90	0.00	0.00	Vehicle	Vehicle	-----	-268.28	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.83**	**6.38**
	L_{20} - L_{21}	4.38	-81.76	68.62			0.90	1.00	61.76	-73.58	0.00	0.00	Vehicle	Vehicle	139.51	-153.74	6.13	37.50	31.3700	1237.50	131.71	10.6250	6.1479	15.55	32.77	-1044.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**9.21**	**15.34**	**6.59**	**10.98**
	L_{21} - L_{22}	55.94	-82.85	80.48			0.90	1.00	72.43	-74.56	0.00	0.00	Vehicle	Vehicle	229.65	-88.82	6.75	37.50	30.7500	1237.50	131.71	10.6224	6.1479	15.55	32.77	-1044.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**7.42**	**12.37**	**6.92**	**11.53**
	L_{22} - L_{23}	62.99	-73.72	126.76			0.90	1.00	114.08	-66.35	0.00	0.00	Vehicle	Vehicle	329.07	-61.87	6.75	37.50	30.7500	1237.50	131.71	10.6224	6.1479	15.55	32.77	-1044.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**4.68**	**7.79**	**7.84**	**13.06**
	L_{23} - L_{24}	15.54	-71.36	96.90			0.90	1.00	87.21	-64.22	0.00	0.00	Vehicle	Vehicle	209.16	-118.95	6.13	37.50	31.3700	1237.50	131.71	10.6250	6.1479	15.55	32.77	-1044.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.44**	**10.74**	**7.65**	**12.75**
	L_{24} - L_{25}	-56.00	-59.21	41.21			0.90	1.00	37.09	-53.29	0.00	0.00	Vehicle	Vehicle	7.56	-188.26	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**11.89**	**19.82**	**5.83**	**9.71**
	L_{25} - L_{26}	-136.37	-54.58	-11.05			0.90	1.00	-9.94	-49.12	0.00	0.00	Vehicle	Vehicle	-----	-283.72	1.25	26.75	25.5000	882.75	131.71	10.6406	5.6472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**5.34**	**8.90**
	L_{26} - L_{27}	-217.73	-40.96	-119.93			0.90	1.00	-36.87	-107.93	0.00	0.00	Vehicle	Vehicle	-----	-516.90	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**2.83**	**4.72**
	L_{27} - L_{28}	-296.25	-34.62	-127.01			0.90	1.00	-31.15	-114.31	0.00	0.00	Vehicle	Vehicle	-----	-632.80	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.94**	**6.57**
	L_{28} - L_{29}	-364.18	-21.37	-115.91			0.90	1.00	-19.23	-104.32	0.00	0.00	Vehicle	Vehicle	-----	-699.46	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**5.24**	**8.74**
	L_{29} - L_{30}	-418.23	-19.72	-279.87			0.90	1.00	-17.75	-251.88	0.00	0.00	Vehicle	Vehicle	-----	-1089.44	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.61**	**4.36**
	L_{30} - L_{31}	-350.38	-237.99	0.00			0.90	1.00	0.00	-214.19	0.00	0.00	Vehicle	Vehicle	-----	-919.56	11.98	70.85	58.8700	2338.05	131.71	11.1432	5.6285	17.82	32.70	-1969.16	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.26**	**5.44**
	L_{31} - L_{32}	-275.46	-79.71	-102.50			0.90	1.00	-71.74	-92.25	0.00	0.00	Vehicle	Vehicle	-----	-557.96	9.73	59.10	49.3700	1950.30	131.71	11.1432	5.8186

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Verticals																																														
Structure 1	U$_0$ - L$_0$	-77.19	19.18	-56.85			0.90	1.00	17.26	-51.16	0.00	0.00	Vehicle	Vehicle	------	-211.20	1.63	15.26	13.6300	503.58	131.71	9.3438	1.9120	43.98	31.16	-404.18	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	2.74	4.57
	U$_1$ - L$_1$	-33.88	17.17	-47.99			0.90	1.00	15.45	-43.19	0.00	0.00	Vehicle	Vehicle	------	-137.62	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	4.42	7.37
	U$_2$ - L$_2$	10.43	16.07	-35.33			0.90	1.00	14.47	-31.80	0.00	0.00	Vehicle	Vehicle	44.90	-55.33	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	17.31	28.85	6.84	11.40
	U$_3$ - L$_3$	44.39	15.93	-22.47			0.90	1.00	14.34	-20.22	0.00	0.00	Vehicle	Vehicle	88.77	------	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	------	------	6.56	------	------	------	------	------	------	16.04	26.74	------	------
	U$_4$ - L$_4$	-16.67	-56.07	0.00			0.90	1.00	0.00	-50.46	0.00	0.00	Vehicle	Vehicle	------	-131.00	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.96	6.60
	U$_5$ - L$_5$	-109.51	-72.68	0.00			0.90	1.00	0.00	-65.41	0.00	0.00	Vehicle	Vehicle	------	-284.08	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	------	------	16.16	------	------	33.25	45.00	Pass	5.37	12.00	Pass	------	------	------	------	------	2.90	4.83
	U$_6$ - L$_6$	-143.60	-89.82	-0.99			0.90	1.00	-0.89	-80.84	0.00	0.00	Vehicle	Vehicle	------	-361.84	3.13	23.61	20.4794	779.11	131.71	9.9479	2.0237	44.24	31.14	-624.88	16.00	0.44	10.00	0.56	------	------	16.00	------	------	36.57	45.00	Pass	8.89	12.00	Pass	------	------	------	------	------	2.50	4.17
	U$_7$ - L$_7$	-142.61	-82.96	1.97			0.90	1.00	1.77	-74.67	0.00	0.00	Vehicle	Vehicle	------	-347.17	2.88	21.86	18.9794	721.36	131.71	11.7292	1.9657	53.70	30.26	-562.19	16.25	0.44	10.00	0.50	------	------	16.25	------	------	37.14	45.00	Pass	10.00	12.00	Pass	------	------	------	------	------	2.33	3.88
	U$_8$ - L$_8$	-391.97	-96.16	-75.82			0.90	1.00	-68.24	-86.54	0.00	0.00	Vehicle	Vehicle	------	-697.07	3.28	51.42	48.1423	1696.94	131.71	16.6563	4.0363	37.14	31.69	-1385.05	15.25	0.82	15.64	1.31	------	------	15.25	------	------	18.60	45.00	Pass	5.96	12.00	Pass	------	------	------	------	------	4.67	7.78
	U$_9$ - L$_9$	-223.13	7.87	-87.69			0.90	1.00	7.08	-78.92	0.00	0.00	Vehicle	Vehicle	------	-461.06	3.50	30.81	27.3125	1016.81	131.71	12.1563	2.5246	43.34	31.21	-817.50	16.25	0.50	12.00	0.63	------	------	16.25	------	------	32.50	45.00	Pass	9.60	12.00	Pass	------	------	------	------	------	3.08	5.14
	U$_{10}$ - L$_{10}$	-225.77	6.10	-93.94			0.90	1.00	5.49	-84.55	0.00	0.00	Vehicle	Vehicle	------	-476.69	2.76	34.69	31.9300	1144.77	131.71	10.7083	2.3304	41.36	31.37	-925.09	16.16	0.83	11.50	0.80	------	------	16.16	------	------	19.50	45.00	Pass	7.23	12.00	Pass	------	------	------	------	------	3.45	5.75
	U$_{11}$ - L$_{11}$	-198.79	0.00	-86.81			0.90	1.00	0.00	-78.13	0.00	0.00	Vehicle	Vehicle	------	-427.70	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.40	5.66
	U$_{12}$ - L$_{12}$	-154.77	0.00	-77.40			0.90	1.00	0.00	-69.66	0.00	0.00	Vehicle	Vehicle	------	-352.12	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	------	------	16.25	------	------	32.50	45.00	Pass	8.89	12.00	Pass	------	------	------	------	------	3.25	5.42
	U$_{13}$ - L$_{13}$	-109.04	0.00	-65.86			0.90	1.00	0.00	-59.27	0.00	0.00	Vehicle	Vehicle	------	-270.18	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	------	2.75	4.58
	U$_{14}$ - L$_{14}$	-12.30	0.00	-51.88			0.90	1.00	0.00	-46.69	0.00	0.00	Vehicle	Vehicle	------	-117.15	0.00	16.85	16.8486	556.00	131.71	9.2805	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	4.27	7.12
	U$_{15}$ - L$_{15}$	-5.62	-34.03	11.47			0.90	1.00	10.32	-30.63	0.00	0.00	Vehicle	Vehicle	15.06	-73.66	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	25.19	41.98	6.61	11.02
	U$_{16}$ - L$_{16}$	-51.74	-54.24	11.41			0.90	1.00	10.27	-48.82	0.00	0.00	Vehicle	Vehicle	------	-173.03	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.56	5.93
	U$_{17}$ - L$_{17}$	-127.31	-75.20	11.85			0.90	1.00	10.66	-67.68	0.00	0.00	Vehicle	Vehicle	------	-312.13	0.00	20.66	20.6644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	------	------	16.16	------	------	33.25	45.00	Pass	5.37	12.00	Pass	------	------	------	------	------	2.52	4.20
	U$_{18}$ - L$_{18}$	-159.89	-83.74	10.90			0.90	1.00	9.81	-75.36	0.00	0.00	Vehicle	Vehicle	------	-371.14	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	------	------	16.16	------	------	32.06	45.00	Pass	7.23	12.00	Pass	------	------	------	------	------	2.91	4.85
	U$_{19}$ - L$_{19}$	-191.17	-85.58	9.21			0.90	1.00	8.29	-77.02	0.00	0.00	Vehicle	Vehicle	------	-415.40	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.31	5.52
	U$_{20}$ - L$_{20}$	-211.94	-98.28	9.19			0.90	1.00	8.27	-88.45	0.00	0.00	Vehicle	Vehicle	------	-467.17	0.00	29.13	29.1305	961.31	131.71	20.3229	2.8884	63.32	29.19	-722.67	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	2.33	3.89
Structure 2	U$_0$ - L$_0$	-206.53	16.29	-88.90			0.90	1.00	14.66	-80.01	0.00	0.00	Vehicle	Vehicle	------	-441.85	0.00	31.81	31.8100	1049.73	131.71	19.1510	2.8323	60.85	29.48	-797.03	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	3.05	5.08
	U$_1$ - L$_1$	-188.72	16.71	-85.87			0.90	1.00	15.04	-77.28	0.00	0.00	Vehicle	Vehicle	------	-412.79	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	3.76	6.26
	U$_2$ - L$_2$	-155.84	17.52	-79.86			0.90	1.00	15.76	-71.88	0.00	0.00	Vehicle	Vehicle	------	-358.33	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	3.49	5.82
	U$_3$ - L$_3$	-134.53	19.75	-75.68			0.90	1.00	17.77	-68.11	0.00	0.00	Vehicle	Vehicle	------	-322.43	0.00	22.75	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	------	------	16.32	------	------	30.85	45.00	Pass	4.91	12.00	Pass	------	------	------	------	------	2.80	4.66
	U$_4$ - L$_4$	-64.47	18.69	-57.70			0.90	1.00	16.82	-51.93	0.00	0.00	Vehicle	Vehicle	------	-196.31	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	3.17	5.29
	U$_5$ - L$_5$	-19.94	20.21	-49.00			0.90	1.00	18.19	-44.10	0.00	0.00	Vehicle	Vehicle	13.49	-121.47	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	14.77	24.61	4.36	7.27
	U$_6$ - L$_6$	40.07	16.68	-25.60			0.90	1.00	15.01	-23.04	0.00	0.00	Vehicle	Vehicle	84.61	------	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	------	------	6.56	------	------	------	------	------	------	15.50	25.83	------	------
	U$_7$ - L$_7$	-26.03	-13.03	0.00			0.90	1.00	0.00	-11.73	0.00	0.00	Vehicle	Vehicle	------	-59.25	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	16.09	26.82
	U$_8$ - L$_8$	-125.22	-55.19	0.00			0.90	1.00	0.00	-49.67	0.00	0.00	Vehicle	Vehicle	------	-270.41	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	------	------	15.75	------	------	36.00	45.00	Pass	8.89	12.00	Pass	------	------	------	------	------	4.90	8.16
	U$_9$ - L$_9$	-174.50	-85.45	0.00			0.90	1.00	0.00	-76.90	0.00	0.00	Vehicle	Vehicle	------	-393.46	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	4.03	6.72
	U$_{10}$ - L$_{10}$	-202.62	-96.19	-0.62			0.90	1.00	-0.56	-86.57	0.00	0.00	Vehicle	Vehicle	------	-450.97	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	------	------	16.48	------	------	20.31	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.99	6.65
	U$_{11}$ - L$_{11}$	-229.48	-109.57	2.56			0.90	1.00	2.30	-98.61	0.00	0.00	Vehicle	Vehicle	------	-511.98	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	------	------	16.48	------	------	20.31	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.26	5.43
	U$_{12}$ - L$_{12}$	-250.80	-116.98	3.84			0.90	1.00	3.46	-105.28	0.00	0.00	Vehicle	Vehicle	------	-554.14	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	------	------	16.48	------	------	18.26	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.14	5.23
	U$_{13}$ - L$_{13}$	-223.27	-107.36	16.47			0.90	1.00	14.83	-96.62	0.00	0.00	Vehicle	Vehicle	------	-499.61	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	------	------	16.32	------	------	20.13	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	2.90	4.83
	U$_{14}$ - L$_{14}$	-343.24	-105.25	-40.15			0.90	1.00	-36.13	-94.73	0.00	0.00	Vehicle	Vehicle	------	-651.46	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0516	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	------	------	15.38	------	------	18.31	45.00	Pass	5.68	12.00	Pass	------	------	------	------	------	4.49	7.48
	U$_{15}$ - L$_{15}$	-123.12	20.61	-82.67			0.90	1.00	18.54	-74.41	0.00	0.00	Vehicle	Vehicle	------	-321.26	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	4.57	7.62
	U$_{16}$ - L$_{16}$	-156.68	18.04	-106.71			0.90	1.00	16.23	-96.04	0.00	0.00	Vehicle	Vehicle	------	-411.76	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	3.18	5.30
	U$_{17}$ - L$_{17}$	-147.89	16.05	-107.25			0.90	1.00	14.44	-96.52	0.00	0.00	Vehicle	Vehicle	------	-401.39	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	2.96	4.93
	U$_{18}$ - L$_{18}$	-142.21	10.84	-112.01			0.90	1.00	9.75	-100.81	0.00	0.00	Vehicle	Vehicle	------	-403.29	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	2.59	4.32
	U$_{19}$ - L$_{19}$	-111.47	9.95	-72.81			0.90	1.00	8.95	-65.53	0.00	0.00	Vehicle	Vehicle	------	-286.89	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	------	------	15.75	------	------	31.50	45.00	Pass	10.00	12.00	Pass	------	------	------	------	------	3.66	6.10
	U$_{20}$ - L$_{20}$	-76.56	4.67	-60.11			0.90	1.00	4.20	-54.10	0.00	0.00	Vehicle	Vehicle	------	-216.74	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	------	3.31	5.52
	U$_{21}$ - L$_{21}$	-44.33	0.63	-48.16			0.90	1.00	0.57	-43.34	0.00	0.00	Vehicle	Vehicle	------	-151.54	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	4.10	6.83
	U$_{22}$ - L$_{22}$	-21.25	-12.73	-12.28			0.90	1.00	-11.05	-11.45	0.00	0.00	Vehicle	Vehicle	------	-52.44	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	16.79	27.99
	U$_{23}$ - L$_{23}$	-39.04	-38.08	2.21			0.90	1.00	1.99	-34.27	0.00	0.00	Vehicle	Vehicle	------	-125.00	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	5.28	8.80
	U$_{24}$ - L$_{24}$	-74.80	-50.42	2.40			0.90	1.00	2.16	-54.38	0.00	0.00	Vehicle	Vehicle	------	-215.06	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	------	3.31	5.52
	U$_{25}$ - L$_{25}$	-103.21	-76.61	6.10			0.90	1.00	5.49	-68.95	0.00	0.00	Vehicle	Vehicle	------	-283.57	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	------	------	15.75	------	------	31.50	45.00	Pass	10.00	12.00	Pass	------	------	------	------	------	3.55	5.92
	U$_{26}$ - L$_{26}$	-120.15	-87.13	6.18			0.90	1.00	5.56	-78.42	0.00	0.00	Vehicle	Vehicle	------	-326.10	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	3.50	5.83
	U$_{27}$ - L$_{27}$	-123.87	-110.79	10.40			0.90	1.00	9.36	-99.71	0.00	0.00	Vehicle	Vehicle	------	-377.06	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	3.01	5.01
	U$_{28}$ - L$_{28}$	-135.49	-122.46	11.07			0.90	1.00	9.97	-110.22	0.00	0.00	Vehicle	Vehicle	------	-414.94	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	2.89	4.81
	U$_{29}$ - L$_{29}$	-116.90	-99.01	13.26			0.90	1.00	11.94	-89.11	0.00	0.00	Vehicle	Vehicle	------	-345.03	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	3.86	6.43
	U$_{30}$ - L$_{30}$	-261.40	-83.46	-56.32			0.90	1.00	-50.69	-75.11	0.00	0.00	Vehicle	Vehicle	------	-502.56	11.02	52.76	41.7400	1741.08	131.71	25.6094	4.0676	56.66	29.95	-1342.96	15.38	0.84	15.66	1.38	------	------	15.38	------	------	18.31	45.00	Pass	5.68	12.00	Pass	------	------	------	------	------	6.16	10.27
	U$_{31}$ - L$_{31}$	-156.06	18.32	-94.05			0.90	1.00	16.49	-84.65	0.00	0.00	Vehicle	Vehicle	------	-386.28	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	------	------	16.32	------	------	20.13	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	3.79	6.31
	U$_{32}$ - L$_{32}$	-185.16	11.90	-118.36			0.90	1.00	10.71	-106.52	0.00	0.00	Vehicle	Vehicle	------	-471.50	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	------	------	16.48	------	------	18.26	45.00	Pass	6.06	12.00	Pass

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane

Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17

Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Diagonals	Structure 1	U$_1$ - L$_1$	87.39	-26.80	74.42			0.90	1.00	66.98	-24.12	0.00	0.00	Vehicle	Vehicle	258.73	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	**4.47**	**7.45**	-----	-----
		U$_1$ - L$_2$	23.29	-26.63	57.70			0.90	1.00	51.93	-23.96	0.00	0.00	Vehicle	Vehicle	142.80	-21.64	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**4.67**	**7.79**	**8.98**	**14.97**
		U$_2$ - L$_3$	-37.87	-25.68	37.46			0.90	1.00	33.72	-23.11	0.00	0.00	Vehicle	Vehicle	23.83	-99.30	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**4.97**	**8.28**	**13.81**	**7.69**	**12.82**
		U$_3$ - L$_4$	-92.23	-24.70	11.55			0.90	1.00	10.40	-22.23	0.00	0.00	Vehicle	Vehicle	-----	-168.06	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**6.59**	**10.98**
		U$_3$ - L$_4$	143.29	16.89	71.49			0.90	1.00	64.34	15.02	0.00	0.00	Vehicle	Vehicle	325.68	-----	0.00	20.48	20.4800	675.84	131.71	11.6953	2.0102	52.36	30.39	-529.06	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**3.51**	**5.85**	-----	-----
		U$_3$ - L$_5$	177.89	13.80	83.71			0.90	1.00	75.33	12.42	0.00	0.00	Vehicle	Vehicle	394.48	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.77**	**6.28**	-----	-----
		U$_4$ - L$_5$	184.40	2.35	98.05			0.90	1.00	88.24	2.11	0.00	0.00	Vehicle	Vehicle	430.91	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.17**	**5.28**	-----	-----
		U$_4$ - L$_6$	179.98	-3.27	91.89			0.90	1.00	82.70	-2.94	0.00	0.00	Vehicle	Vehicle	413.16	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.41**	**5.69**	-----	-----
		U$_6$ - L$_6$	268.90	3.40	88.91			0.90	1.00	80.02	3.06	0.00	0.00	Vehicle	Vehicle	522.95	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.20**	**8.66**	-----	-----
		U$_6$ - L$_{10}$	278.76	-10.28	94.01			0.90	1.00	84.61	-9.26	0.00	0.00	Vehicle	Vehicle	545.71	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**4.85**	**8.08**	-----	-----
		U$_{10}$ - L$_{11}$	284.98	10.77	98.67			0.90	1.00	88.80	9.69	0.00	0.00	Vehicle	Vehicle	562.88	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**4.23**	**7.05**	-----	-----
		U$_{11}$ - L$_{12}$	250.55	11.09	90.40			0.90	1.00	81.36	9.98	0.00	0.00	Vehicle	Vehicle	501.99	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.89**	**6.48**	-----	-----
		U$_{12}$ - L$_{13}$	189.62	-0.33	92.57			0.90	1.00	83.31	-0.30	0.00	0.00	Vehicle	Vehicle	427.01	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**3.18**	**5.30**	-----	-----
		U$_{13}$ - L$_{14}$	123.30	0.57	69.91			0.90	1.00	62.92	0.51	0.00	0.00	Vehicle	Vehicle	296.61	-----	0.00	16.85	16.8486	556.00	131.71	11.7771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**2.90**	**4.84**	-----	-----
		U$_{13}$ - L$_{14}$	-24.40	-16.74	24.03			0.90	1.00	21.63	-15.07	0.00	0.00	Vehicle	Vehicle	15.14	-64.37	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	20.90	20.90	**12.10**	**20.17**
		U$_{14}$ - L$_{15}$	48.54	-15.57	48.13			0.90	1.00	43.32	-14.01	0.00	0.00	Vehicle	Vehicle	156.95	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.25**	**8.75**	-----	-----
		U$_{15}$ - L$_{16}$	146.57	-16.25	83.10			0.90	1.00	74.79	-14.63	0.00	0.00	Vehicle	Vehicle	352.59	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**3.03**	**5.05**	-----	-----
		U$_{16}$ - L$_{17}$	182.43	-13.96	88.95			0.90	1.00	80.05	-12.56	0.00	0.00	Vehicle	Vehicle	410.61	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.51**	**5.85**	-----	-----
		U$_{18}$ - L$_{18}$	223.79	-11.70	93.81			0.90	1.00	84.43	-10.53	0.00	0.00	Vehicle	Vehicle	473.86	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.46**	**5.76**	-----	-----
		U$_{20}$ - L$_{19}$	232.63	-5.25	25.16			0.90	1.00	22.65	-4.72	0.00	0.00	Vehicle	Vehicle	351.49	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**12.65**	**21.09**	-----	-----
	Structure 2	U$_1$ - L$_1$	213.47	-17.36	88.99			0.90	1.00	80.09	-15.63	0.00	0.00	Vehicle	Vehicle	451.04	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.23**	**7.04**	-----	-----
		U$_1$ - L$_2$	200.39	-20.35	91.11			0.90	1.00	82.00	-18.32	0.00	0.00	Vehicle	Vehicle	438.18	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.22**	**7.04**	-----	-----
		U$_2$ - L$_3$	172.76	-22.57	86.50			0.90	1.00	77.85	-20.32	0.00	0.00	Vehicle	Vehicle	393.27	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.68**	**6.14**	-----	-----
		U$_3$ - L$_4$	147.11	-26.41	83.07			0.90	1.00	74.77	-23.77	0.00	0.00	Vehicle	Vehicle	353.24	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**3.45**	**5.75**	-----	-----
		U$_3$ - L$_5$	49.07	-25.97	62.99			0.90	1.00	56.62	-23.37	0.00	0.00	Vehicle	Vehicle	186.62	-----	0.00	16.85	16.8486	556.00	131.71	15.3956	1.9682	70.41	28.23	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.01**	**6.68**	-----	-----
		U$_5$ - L$_6$	2.97	-27.01	50.87			0.90	1.00	45.78	-24.31	0.00	0.00	Vehicle	Vehicle	103.05	-48.81	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	**5.57**	**9.28**	**8.11**	**13.52**
		U$_5$ - L$_7$	-85.72	-23.86	12.89			0.90	1.00	11.60	-21.48	0.00	0.00	Vehicle	Vehicle	-----	-157.97	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	**7.64**	**12.74**
		U$_6$ - L$_7$	140.27	0.00	51.06			0.90	1.00	45.95	0.00	0.00	0.00	Vehicle	Vehicle	281.91	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**6.05**	**10.08**	-----	-----
		U$_6$ - L$_8$	204.17	3.63	86.51			0.90	1.00	77.86	3.27	0.00	0.00	Vehicle	Vehicle	434.12	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.90**	**6.50**	-----	-----
		U$_{10}$ - L$_9$	234.82	12.01	103.61			0.90	1.00	93.25	10.81	0.00	0.00	Vehicle	Vehicle	507.31	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.49**	**5.82**	-----	-----
		U$_{11}$ - L$_{10}$	263.04	-1.79	120.13			0.90	1.00	108.12	-1.61	0.00	0.00	Vehicle	Vehicle	576.20	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.23**	**5.38**	-----	-----
		U$_{12}$ - L$_{11}$	273.97	-3.21	119.84			0.90	1.00	107.85	-2.89	0.00	0.00	Vehicle	Vehicle	589.84	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.17**	**5.29**	-----	-----
		U$_{13}$ - L$_{12}$	254.88	-16.79	117.68			0.90	1.00	105.91	-15.11	0.00	0.00	Vehicle	Vehicle	560.81	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**2.96**	**4.94**	-----	-----
		U$_{13}$ - L$_{15}$	217.66	-20.93	103.47			0.90	1.00	93.12	-18.83	0.00	0.00	Vehicle	Vehicle	484.73	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.61**	**6.01**	-----	-----
		U$_{14}$ - L$_{15}$	110.03	-13.69	59.37			0.90	1.00	53.43	-12.32	0.00	0.00	Vehicle	Vehicle	258.81	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**6.07**	**10.12**	-----	-----
		U$_{15}$ - L$_{16}$	132.26	-23.16	87.23			0.90	1.00	78.51	-20.84	0.00	0.00	Vehicle	Vehicle	342.04	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.96**	**6.60**	-----	-----
		U$_{17}$ - L$_{17}$	172.87	-17.68	112.69			0.90	1.00	101.42	-15.91	0.00	0.00	Vehicle	Vehicle	444.47	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.18**	**5.30**	-----	-----
		U$_{17}$ - L$_{18}$	160.16	-18.52	114.64			0.90	1.00	103.18	-16.66	0.00	0.00	Vehicle	Vehicle	431.76	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**2.85**	**4.75**	-----	-----
		U$_{19}$ - L$_{19}$	152.33	-11.02	71.58			0.90	1.00	64.42	-9.92	0.00	0.00	Vehicle	Vehicle	337.61	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.64**	**7.73**	-----	-----
		U$_{20}$ - L$_{20}$	120.67	-11.44	78.59			0.90	1.00	70.73	-10.29	0.00	0.00	Vehicle	Vehicle	310.11	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**4.09**	**6.82**	-----	-----
		U$_{20}$ - L$_{21}$	76.10	-5.32	64.52			0.90	1.00	58.07	-4.79	0.00	0.00	Vehicle	Vehicle	224.75	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**3.63**	**6.05**	-----	-----
		U$_{21}$ - L$_{22}$	31.50	-5.43	42.91			0.90	1.00	38.62	-4.88	0.00	0.00	Vehicle	Vehicle	124.63	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**6.15**	**10.26**	-----	-----
		U$_{23}$ - L$_{22}$	24.27	-2.84	28.65			0.90	1.00	25.79	-2.55	0.00	0.00	Vehicle	Vehicle	87.42	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**9.39**	**15.65**	-----	-----
		U$_{24}$ - L$_{23}$	72.21	-3.85	53.28			0.90	1.00	47.95	-3.46	0.00	0.00	Vehicle	Vehicle	197.78	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.35	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.45**	**7.41**	-----	-----
		U$_{24}$ - L$_{24}$	112.05	-7.93	82.48			0.90	1.00	74.23	-7.14	0.00	0.00	Vehicle	Vehicle	306.51	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**3.97**	**6.62**	-----	-----
		U$_{25}$ - L$_{25}$	127.76	-7.99	92.33			0.90	1.00	83.64	-7.19	0.00	0.00	Vehicle	Vehicle	347.31	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.75**	**6.25**	-----	-----
		U$_{26}$ - L$_{26}$	132.58	-12.18	119.91			0.90	1.00	107.92	-10.96	0.00	0.00	Vehicle	Vehicle	406.19	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**2.88**	**4.80**	-----	-----
		U$_{26}$ - L$_{27}$	137.86	-12.32	120.19			0.90	1.00	108.17	-11.09	0.00	0.00	Vehicle	Vehicle	413.59	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.17**	**5.29**	-----	-----
		U$_{28}$ - L$_{28}$	122.74	-14.77	107.70			0.90	1.00	96.93	-13.29	0.00	0.00	Vehicle	Vehicle	369.57	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.27**	**5.45**	-----	-----
		U$_{29}$ - L$_{29}$	102.60	-18.93	78.62			0.90	1.00	70.76	-17.03	0.00	0.00	Vehicle	Vehicle	286.68	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.65**	**7.75**	-----	-----
		U$_{30}$ - L$_{31}$	139.84	-9.83	73.17			0.90	1.00	65.85	-8.85	0.00	0.00	Vehicle	Vehicle	324.46	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.81**	**9.68**	-----	-----
		U$_{31}$ - L$_{32}$	166.63	-20.54	101.52			0.90	1.00	91.37	-18.48	0.00	0.00	Vehicle	Vehicle	414.58	-----	0.00	29.18	29.1800	962.94	131.71	17.8750	2.8156	57.14	29.89	-741.48	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.77**	**6.28**	-----	-----
		U$_{32}$ - L$_{33}$	202.12	-11.07	124.78			0.90	1.00	112.30	-9.96	0.00	0.00	Vehicle	Vehicle	506.09	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.43**	**5.72**	-----	-----
		U$_{33}$ - L$_{34}$	201.72	-11.13	102.55			0.90	1.00	92.29	-10.01	0.00	0.00	Vehicle	Vehicle	462.19	-----	0.00	33.27	33.2657	1097.77	131.71	14.5729	2.8573	45.90	31.00	-876.43	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.18**	**6.96**	-----	-----
		U$_{35}$ - L$_{35}$	180.72	-1.29	98.79			0.90	1.00	88.91	-1.16	0.00	0.00	Vehicle	Vehicle	427.58	-----	0.00	30.63	30.6305	1010.81	131.71	13.7604	2.8427	43.57	31.19	-812.18	16.48	0

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

(Case I considered in Max. Tension/Compression Load)

Location	Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	Impact & Pedestrian Load MAX	Impact & Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capicity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Upper Chord	Structure 1							0.00																																						
	U_0 - U_1	-52.70	-45.43	-51.71			0.75	1.00	-34.07	-38.79	0.00	0.00	Vehicle	Vehicle	-----	-152.55	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	7.93	13.22
	U_1 - U_2	-61.66	28.02	-83.22			0.75	1.00	21.02	-62.41	0.00	0.00	Vehicle	Vehicle	-----	-215.38	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	4.84	8.07
	U_2 - U_3	-27.05	49.50	-94.55			0.75	1.00	37.13	-70.91	0.00	0.00	Vehicle	Vehicle	45.28	-188.80	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	11.28	18.80	4.55	7.59
	U_3 - U_4	32.90	62.93	-114.16			0.75	1.00	47.20	-85.62	0.00	0.00	Vehicle	Vehicle	145.04	-142.74	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	8.11	13.52	4.19	6.99
	U_4 - U_5	34.76	63.20	-113.57			0.75	1.00	47.40	-85.17	0.00	0.00	Vehicle	Vehicle	147.89	-139.36	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	8.05	13.42	4.23	7.05
	U_5 - U_6	124.19	73.60	-69.60			0.75	1.00	55.20	-52.20	0.00	0.00	Vehicle	Vehicle	281.03	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	5.95	9.91	-----	-----
	U_6 - U_7	223.31	87.84	-30.25			0.75	1.00	65.88	-22.69	0.00	0.00	Vehicle	Vehicle	433.04	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	5.29	8.82	-----	-----
	U_7 - U_8	331.92	93.36	24.39			0.75	1.00	70.02	18.30	0.00	0.00	Vehicle	Vehicle	583.20	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	6.67	11.11	-----	-----
	U_8 - U_9	267.71	121.14	0.00			0.75	1.00	90.86	0.00	0.00	0.00	Vehicle	Vehicle	544.87	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	4.43	7.39	-----	-----
	U_9 - U_{10}	89.12	58.03	0.00			0.75	1.00	43.52	0.00	0.00	0.00	Vehicle	Vehicle	210.16	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	-----	-----	42.67	-----	-----	10.67	-----	-----	8.55	14.25	-----	-----
	U_{10} - U_{11}	-76.89	-7.97	0.00			0.75	1.00	0.00	-5.98	0.00	0.00	Vehicle	Vehicle	-----	-112.91	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	52.23	87.05
	U_{11} - U_{12}	-230.86	46.18	-112.42			0.75	1.00	34.63	-84.32	0.00	0.00	Vehicle	Vehicle	-----	-482.81	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	4.14	6.90
	U_{12} - U_{13}	-342.15	38.32	-143.47			0.75	1.00	28.74	-107.60	0.00	0.00	Vehicle	Vehicle	-----	-677.92	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	4.44	7.39
	U_{13} - U_{14}	-421.98	31.81	-182.88			0.75	1.00	23.86	-137.16	0.00	0.00	Vehicle	Vehicle	-----	-845.76	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.96	6.60
	U_{14} - U_{15}	-422.87	31.67	-194.59			0.75	1.00	23.75	-145.94	0.00	0.00	Vehicle	Vehicle	-----	-865.95	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.72	6.20
	U_{15} - U_{16}	-440.39	24.53	-143.57			0.75	1.00	18.40	-107.68	0.00	0.00	Vehicle	Vehicle	-----	-805.81	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	4.94	8.24
	U_{16} - U_{17}	-422.93	18.44	-166.18			0.75	1.00	13.83	-124.64	0.00	0.00	Vehicle	Vehicle	-----	-819.86	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	4.35	7.26
	U_{17} - U_{18}	-341.45	12.27	-110.67			0.75	1.00	9.20	-83.00	0.00	0.00	Vehicle	Vehicle	-----	-623.71	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	45.00	Pass	32.00	50.00	Pass	8.00	12.00	Pass	-----	-----	4.55	7.58
	U_{18} - U_{19}	-247.63	7.38	-78.92			0.75	1.00	5.54	-59.19	0.00	0.00	Vehicle	Vehicle	-----	-450.16	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	4.36	7.26
	U_{19} - U_{20}	-132.06	2.96	-37.33			0.75	1.00	2.22	-28.00	0.00	0.00	Vehicle	Vehicle	-----	-232.34	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	11.69	19.48
	U_0 - U_1	-131.63	-37.70	8.46			0.75	1.00	6.35	-26.28	0.00	0.00	Vehicle	Vehicle	-----	-232.39	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	10.94	18.24
	U_1 - U_2	-247.12	17.30	-58.12			0.75	1.00	12.97	-43.59	0.00	0.00	Vehicle	Vehicle	-----	-415.70	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	7.49	12.48
	U_2 - U_3	-347.28	-119.27	-77.41			0.75	1.00	-58.06	-89.45	0.00	0.00	Vehicle	Vehicle	-----	-645.27	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.69	4.00	0.69	16.00	95.35	272.00	30.22	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	4.90	8.16
	U_3 - U_4	-437.20	55.44	-185.50			0.75	1.00	41.58	-139.12	0.00	0.00	Vehicle	Vehicle	-----	-869.79	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.90	6.50
	U_4 - U_5	-468.83	68.33	-207.70			0.75	1.00	51.25	-155.77	0.00	0.00	Vehicle	Vehicle	-----	-946.99	15.14	69.44	54.2975	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.92	6.54
	U_5 - U_6	-471.14	81.18	-217.81			0.75	1.00	60.88	-163.36	0.00	0.00	Vehicle	Vehicle	-----	-966.43	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.73	6.22
	U_6 - U_7	-414.50	90.80	-210.50			0.75	1.00	68.10	-157.88	0.00	0.00	Vehicle	Vehicle	-----	-880.91	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.52	5.87
	U_7 - U_8	-413.54	90.93	-216.13			0.75	1.00	68.20	-162.09	0.00	0.00	Vehicle	Vehicle	-----	-888.81	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.43	5.72
	U_8 - U_9	-322.06	99.65	-173.92			0.75	1.00	74.74	-130.44	0.00	0.00	Vehicle	Vehicle	-----	-701.29	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	3.70	6.16
	U_9 - U_{10}	-182.16	104.63	-164.12			0.75	1.00	78.47	-123.09	0.00	0.00	Vehicle	Vehicle	-----	-503.50	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	3.43	5.72
	U_{10} - U_{11}	-32.61	110.20	-113.13			0.75	1.00	82.65	-84.84	0.00	0.00	Vehicle	Vehicle	136.67	-226.23	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	6.85	11.41	5.21	8.68
	U_{11} - U_{12}	133.57	112.84	55.58			0.75	1.00	84.63	41.69	0.00	0.00	Vehicle	Vehicle	357.00	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	5.51	9.18	-----	-----
	U_{12} - U_{13}	289.98	111.55	-11.52			0.75	1.00	83.66	-8.64	0.00	0.00	Vehicle	Vehicle	558.25	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	6.09	10.15	-----	-----
	U_{13} - U_{14}	434.77	108.58	157.30			0.75	1.00	117.97	81.43	0.00	0.00	Vehicle	Vehicle	820.81	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.74	9.57	-----	-----
	U_{14} - U_{15}	474.48	170.45	0.00			0.75	1.00	127.84	0.00	0.00	0.00	Vehicle	Vehicle	893.80	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.12	8.53	-----	-----
	U_{15} - U_{16}	383.31	63.35	14.46			0.75	1.00	47.51	10.85	0.00	0.00	Vehicle	Vehicle	601.25	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	11.23	18.71	-----	-----
	U_{16} - U_{17}	279.61	71.17	0.00			0.75	1.00	53.37	0.00	0.00	0.00	Vehicle	Vehicle	479.14	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	8.59	14.32	-----	-----
	U_{17} - U_{18}	172.67	22.28	-39.34			0.75	1.00	16.71	-29.50	0.00	0.00	Vehicle	Vehicle	260.67	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	21.31	35.52	-----	-----
	U_{18} - U_{19}	74.40	79.70	-20.83			0.75	1.00	59.78	-15.62	0.00	0.00	Vehicle	Vehicle	226.23	-----	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	6.95	11.58	-----	-----
	U_{19} - U_{20}	-9.98	82.59	-111.09			0.75	1.00	61.94	-83.32	0.00	0.00	Vehicle	Vehicle	121.24	-193.50	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.04	13.40	4.92	8.20
	Structure 2							0.00																																						
	U_{20} - U_{21}	-62.02	82.89	-129.20			0.75	1.00	62.16	-96.90	0.00	0.00	Vehicle	Vehicle	54.07	-290.56	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	10.17	16.95	4.80	8.00
	U_{21} - U_{22}	-88.69	86.27	-148.44			0.75	1.00	64.70	-111.33	0.00	0.00	Vehicle	Vehicle	24.89	-356.50	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	10.02	16.70	4.03	6.72
	U_{22} - U_{23}	-88.87	86.27	-159.53			0.75	1.00	64.70	-119.65	0.00	0.00	Vehicle	Vehicle	24.66	-374.77	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	10.02	16.70	3.75	6.25
	U_{23} - U_{24}	-76.60	80.80	-63.05			0.75	1.00	60.60	-47.29	0.00	0.00	Vehicle	Vehicle	31.72	-202.03	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	10.58	17.63	9.65	16.08
	U_{24} - U_{25}	-37.55	83.83	-123.88			0.75	1.00	62.88	-92.91	0.00	0.00	Vehicle	Vehicle	87.41	-250.13	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.19	13.64	4.23	7.05
	U_{25} - U_{26}	37.36	80.86	-72.08			0.75	1.00	60.65	-54.06	0.00	0.00	Vehicle	Vehicle	179.96	-68.57	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	7.21	12.02	7.60	12.67
	U_{26} - U_{27}	128.18	78.35	11.71			0.75	1.00	58.76	8.78	0.00	0.00	Vehicle	Vehicle	293.95	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	5.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	6.52	10.86	-----	-----
	U_{27} - U_{28}	233.91	74.15	3.60			0.75	1.00	55.61	2.70	0.00	0.00	Vehicle	Vehicle	424.57	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	8.74	14.57	-----	-----
	U_{28} - U_{29}	337.95	70.38	116.80			0.75	1.00	87.60	52.78	0.00	0.00	Vehicle	Vehicle	629.13	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	6.40	10.67	-----	-----
	U_{29} - U_{30}	437.48	66.14	171.41			0.75	1.00	128.56	49.61	0.00	0.00	Vehicle	Vehicle	847.27	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.26	8.77	-----	-----
	U_{30} - U_{31}	420.86	166.60	0.00			0.75	1.00	124.95	0.00	0.00	0.00	Vehicle	Vehicle	817.84	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.49	9.15	-----	-----
	U_{31} - U_{32}	300.88	97.80	-14.92			0.75	1.00	73.35	-11.19	0.00	0.00	Vehicle	Vehicle	550.07	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Lower Chord	Structure 1	L$_0$- L$_1$	8.48	3.54	-4.10			0.75	1.00	2.66	-3.07	0.00	0.00	Vehicle	Vehicle	16.78	-----	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	111.64	186.06	-----	-----
		L$_1$ - L$_2$	50.83	0.00	29.24			0.75	1.00	21.93	0.00	0.00	0.00	Vehicle	Vehicle	113.60	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	12.36	20.60	-----	-----
		L$_2$ - L$_3$	61.27	-36.19	79.44			0.75	1.00	59.58	-27.14	0.00	0.00	Vehicle	Vehicle	208.74	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	6.12	10.19	-----	-----
		L$_3$ - L$_4$	25.72	-50.17	90.48			0.75	1.00	67.86	-37.63	0.00	0.00	Vehicle	Vehicle	180.47	-48.10	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	5.68	9.47	9.39	15.64
		L$_4$ - L$_5$	-118.55	-72.21	57.39			0.75	1.00	43.04	-54.16	0.00	0.00	Vehicle	Vehicle	-----	-271.46	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	4.23	7.05
		L$_5$ - L$_6$	-217.97	-86.73	21.18			0.75	1.00	15.89	-65.05	0.00	0.00	Vehicle	Vehicle	-----	-424.29	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	4.07	6.79
		L$_6$ - L$_7$	-320.57	-94.21	-27.07			0.75	1.00	-20.30	-70.66	0.00	0.00	Vehicle	Vehicle	-----	-569.84	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	5.30	8.84
		L$_7$ - L$_8$	-417.42	0.00	-181.06			0.75	1.00	0.00	-135.80	0.00	0.00	Vehicle	Vehicle	-----	-836.86	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	3.46	5.76
		L$_8$ - L$_9$	-411.08	-175.52	0.00			0.75	1.00	0.00	-131.64	0.00	0.00	Vehicle	Vehicle	-----	-819.63	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	3.59	5.99
		L$_9$ - L$_{10}$	-247.97	-54.73	-66.63			0.75	1.00	-41.05	-49.97	0.00	0.00	Vehicle	Vehicle	-----	-430.64	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	8.37	13.95
		L$_{10}$ - L$_{11}$	-65.37	-66.01	0.00			0.75	1.00	0.00	-49.51	0.00	0.00	Vehicle	Vehicle	-----	-192.24	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	5.27	8.79
		L$_{11}$ - L$_{12}$	101.81	0.69	0.00			0.75	1.00	0.51	0.00	0.00	0.00	Vehicle	Vehicle	133.47	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	573.98	956.64	-----	-----
		L$_{12}$ - L$_{13}$	264.06	-42.15	110.25			0.75	1.00	82.68	-31.61	0.00	0.00	Vehicle	Vehicle	522.43	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	5.16	8.60	-----	-----
		L$_{13}$ - L$_{14}$	373.80	108.79	141.11			0.75	1.00	105.83	81.59	0.00	0.00	Vehicle	Vehicle	715.23	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	5.30	8.83	-----	-----
		L$_{14}$ - L$_{15}$	476.54	-22.92	156.94			0.75	1.00	117.70	-17.19	0.00	0.00	Vehicle	Vehicle	874.53	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	5.60	9.33	-----	-----
		L$_{15}$ - L$_{16}$	460.23	-16.82	145.08			0.75	1.00	108.81	-12.61	0.00	0.00	Vehicle	Vehicle	834.05	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	6.14	10.24	-----	-----
		L$_{16}$ - L$_{17}$	381.61	-11.01	104.47			0.75	1.00	78.35	-8.26	0.00	0.00	Vehicle	Vehicle	665.85	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	6.39	10.66	-----	-----
		L$_{17}$ - L$_{18}$	289.18	-6.12	59.09			0.75	1.00	44.32	-4.59	0.00	0.00	Vehicle	Vehicle	471.96	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	8.05	13.41	-----	-----
		L$_{18}$ - L$_{19}$	176.31	-3.11	21.54			0.75	1.00	16.15	-2.33	0.00	0.00	Vehicle	Vehicle	264.20	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	12.12	20.20	-----	-----
		L$_{19}$ - L$_{20}$	69.72	-0.30	-17.82			0.75	1.00	-0.22	-13.37	0.00	0.00	Vehicle	Vehicle	90.16	-----	1.95	19.80	17.8500	653.40	131.71	10.8073	5.6265	17.41	32.71	-550.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	-----	-----	-----	-----
		L$_0$- L$_1$	24.42	1.48	-2.15			0.75	1.00	1.11	-1.61	0.00	0.00	Vehicle	Vehicle	34.15	-----	1.88	20.08	18.2000	662.64	131.71	10.8828	6.9064	14.18	32.81	-559.98	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	262.68	437.80	-----	-----
		L$_1$ - L$_2$	138.42	50.26	-13.37			0.75	1.00	37.70	-10.03	0.00	0.00	Vehicle	Vehicle	261.62	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	7.88	13.13	-----	-----
		L$_2$ - L$_3$	252.76	65.04	55.73			0.75	1.00	48.78	41.79	0.00	0.00	Vehicle	Vehicle	434.28	-----	6.20	38.45	32.2500	1268.85	131.71	10.7370	6.1675	15.67	32.77	-1070.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	8.90	14.83	-----	-----
		L$_3$ - L$_4$	352.26	0.00	61.47			0.75	1.00	46.10	0.00	0.00	0.00	Vehicle	Vehicle	557.82	-----	9.45	51.58	42.1250	1701.98	131.71	10.7370	5.7558	16.79	32.73	-1434.93	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	12.46	20.76	-----	-----
		L$_4$ - L$_5$	447.15	-57.92	184.99			0.75	1.00	138.74	-43.44	0.00	0.00	Vehicle	Vehicle	881.91	-----	11.00	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.90	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	5.20	8.67	-----	-----
		L$_5$ - L$_6$	477.91	-70.79	206.93			0.75	1.00	155.19	-53.09	0.00	0.00	Vehicle	Vehicle	957.54	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	5.08	8.47	-----	-----
		L$_6$ - L$_7$	482.67	-83.62	216.62			0.75	1.00	162.46	-62.72	0.00	0.00	Vehicle	Vehicle	979.47	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	4.93	8.22	-----	-----
		L$_7$ - L$_8$	336.57	-101.75	180.74			0.75	1.00	135.56	-76.31	0.00	0.00	Vehicle	Vehicle	731.25	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	4.45	7.41	-----	-----
		L$_8$ - L$_9$	196.00	-106.15	151.53			0.75	1.00	113.65	-79.62	0.00	0.00	Vehicle	Vehicle	501.04	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	4.77	7.95	-----	-----
		L$_9$ - L$_{10}$	45.53	-110.82	98.70			0.75	1.00	74.02	-83.12	0.00	0.00	Vehicle	Vehicle	219.57	-120.89	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	6.62	11.03	5.58	9.30
		L$_{10}$ - L$_{11}$	-126.32	-113.68	51.32			0.75	1.00	38.49	-85.26	0.00	0.00	Vehicle	Vehicle	-----	-348.95	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.78	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	3.69	6.15
		L$_{11}$ - L$_{12}$	-284.95	-113.54	-133.00			0.75	1.00	-85.16	-99.75	0.00	0.00	Vehicle	Vehicle	-----	-586.56	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	3.88	6.47
		L$_{12}$ - L$_{13}$	-433.89	-111.39	-38.30			0.75	1.00	-28.73	-83.54	0.00	0.00	Vehicle	Vehicle	-----	-745.06	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	6.04	10.07
		L$_{13}$ - L$_{14}$	-552.76	0.00	-210.97			0.75	1.00	0.00	-158.23	0.00	0.00	Vehicle	Vehicle	-----	-1061.41	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	3.65	6.08
		L$_{14}$ - L$_{15}$	-573.53	-221.33	0.00			0.75	1.00	0.00	-166.00	0.00	0.00	Vehicle	Vehicle	-----	-1105.24	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	3.40	5.67
		L$_{15}$ - L$_{16}$	-493.00	-82.56	-179.07			0.75	1.00	-61.92	-134.30	0.00	0.00	Vehicle	Vehicle	-----	-931.88	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	3.50	5.83
		L$_{16}$ - L$_{17}$	-395.34	-144.23	0.00			0.75	1.00	0.00	-108.17	0.00	0.00	Vehicle	Vehicle	-----	-748.31	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	3.62	6.03
		L$_{17}$ - L$_{18}$	-288.08	-85.78	0.00			0.75	1.00	0.00	-64.33	0.00	0.00	Vehicle	Vehicle	-----	-513.89	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	4.10	6.83
		L$_{18}$ - L$_{19}$	-175.85	-82.14	37.72			0.75	1.00	28.29	-61.60	0.00	0.00	Vehicle	Vehicle	-----	-362.07	1.25	26.75	25.5000	882.75	131.71	10.6406	5.6472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	3.87	6.46
		L$_{19}$ - L$_{20}$	-78.08	-84.25	56.56			0.75	1.00	42.42	-63.19	0.00	0.00	Vehicle	Vehicle	-----	-238.40	1.88	26.75	24.8700	882.75	131.71	10.6380	5.6472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	4.71	7.84
	Structure 2	L$_{20}$ - L$_{21}$	7.59	-88.86	113.31			0.75	1.00	84.99	-66.65	0.00	0.00	Vehicle	Vehicle	194.01	-134.53	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	6.76	11.26	7.40	12.33
		L$_{21}$ - L$_{22}$	59.10	-89.12	59.44			0.75	1.00	44.58	-66.84	0.00	0.00	Vehicle	Vehicle	173.41	-67.99	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	12.19	20.31	7.84	13.07
		L$_{22}$ - L$_{23}$	72.03	-86.90	127.34			0.75	1.00	95.51	-65.18	0.00	0.00	Vehicle	Vehicle	300.57	-47.58	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	5.61	9.35	8.16	13.60
		L$_{23}$ - L$_{24}$	33.57	-85.74	109.87			0.75	1.00	82.40	-64.31	0.00	0.00	Vehicle	Vehicle	222.17	-95.69	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	6.78	11.30	7.91	13.18
		L$_{24}$ - L$_{25}$	-45.06	-81.84	71.52			0.75	1.00	53.64	-61.38	0.00	0.00	Vehicle	Vehicle	57.65	-191.57	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	8.10	13.50	5.17	8.61
		L$_{25}$ - L$_{26}$	-134.95	-79.43	26.49			0.75	1.00	19.87	-59.57	0.00	0.00	Vehicle	Vehicle	-----	-304.50	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	4.42	7.36
		L$_{26}$ - L$_{27}$	-245.92	-74.73	-82.04			0.75	1.00	-56.04	-61.53	0.00	0.00	Vehicle	Vehicle	-----	-453.02	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	4.70	7.83
		L$_{27}$ - L$_{28}$	-351.86	-71.11	-59.78			0.75	1.00	-44.83	-53.33	0.00	0.00	Vehicle	Vehicle	-----	-572.97	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	7.83	13.05
		L$_{28}$ - L$_{29}$	-458.41	-68.24	-176.77			0.75	1.00	-51.18	-132.58	0.00	0.00	Vehicle	Vehicle	-----	-883.19	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	3.70	6.16
		L$_{29}$ - L$_{30}$	-542.36	0.00	-216.97			0.75	1.00	0.00	-162.73	0.00	0.00	Vehicle	Vehicle	-----	-1057.65	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	3.59	5.98
		L$_{30}$ - L$_{31}$	-514.21	-224.26	0.00			0.75	1.00	0.00	-168.20	0.00	0.00	Vehicle	Vehicle	-----	-1032.91	11.98	70.85	58.8700	2338.05	131.71	11.1432	5.6285	17.82	32.70	-1969.16	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	3.57	5.95
		L$_{31}$ - L$_{32}$	-411.27	0.00	-177.47			0.75	1.00	0.00	-133.10	0.00	0.00	Vehicle	Vehicle	-----	-823.03	9.73	59.60	49.8700	1966.80	131.71	11.1432	5.8413	17.17	32.72	-1657.58	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Center Truss - Verticals

Location	Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	Impact & Pedestrian Load MAX	Impact & Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capacity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Structure 1	U_0 - L_0	-67.68	15.36	-58.78			0.75	1.00	11.52	-44.09	0.00	0.00	Vehicle	Vehicle	-----	-183.50	1.63	16.85	15.2186	556.00	131.71	9.3438	1.9682	42.73	31.26	-447.73	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	3.77	6.28
	U_1 - L_1	-24.09	14.91	-42.84			0.75	1.00	11.18	-32.13	0.00	0.00	Vehicle	Vehicle	-----	-100.92	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.13	10.21
	U_2 - L_2	12.87	12.31	-34.55			0.75	1.00	9.23	-25.91	0.00	0.00	Vehicle	Vehicle	36.74	-39.41	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	26.96	44.93	8.45	14.08
	U_3 - L_3	37.37	13.22	-24.60			0.75	1.00	9.92	-18.45	0.00	0.00	Vehicle	Vehicle	70.07	-----	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	23.62	39.36	-----	-----
	U_4 - L_4	-15.55	-74.65	0.00			0.75	1.00	0.00	-55.98	0.00	0.00	Vehicle	Vehicle	-----	-141.51	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	3.58	5.97
	U_5 - L_5	-92.59	-80.17	0.00			0.75	1.00	0.00	-60.12	0.00	0.00	Vehicle	Vehicle	-----	-250.63	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	3.32	5.53
	U_6 - L_6	-117.07	-86.26	0.00			0.75	1.00	0.00	-64.70	0.00	0.00	Vehicle	Vehicle	-----	-292.36	3.13	24.86	21.7294	820.36	131.71	9.9479	2.0895	42.85	31.25	-660.40	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	3.63	6.04
	U_7 - L_7	-127.52	-90.35	0.00			0.75	1.00	0.00	-67.77	0.00	0.00	Vehicle	Vehicle	-----	-312.59	2.88	23.11	20.2294	762.61	131.71	11.7292	2.0414	51.71	30.46	-598.26	16.25	0.44	10.00	0.50	-----	-----	16.25	-----	-----	37.14	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	2.95	4.91
	U_8 - L_8	-368.71	-92.58	-101.45			0.75	1.00	-69.44	-76.09	0.00	0.00	Vehicle	Vehicle	-----	-644.18	3.28	51.42	48.1423	1696.94	131.71	16.6563	4.0363	37.14	31.69	-1385.05	15.25	0.82	15.64	1.31	-----	-----	15.25	-----	-----	18.60	45.00	Pass	5.96	12.00	Pass	-----	-----	-----	-----	-----	5.49	9.16
	U_9 - L_9	-214.56	0.00	-88.04			0.75	1.00	0.00	-66.03	0.00	0.00	Vehicle	Vehicle	-----	-422.00	3.50	31.56	28.0625	1041.56	131.71	12.1563	2.5582	42.77	31.26	-838.65	16.25	0.50	12.00	0.63	-----	-----	16.25	-----	-----	32.50	45.00	Pass	9.60	12.00	Pass	-----	-----	-----	-----	-----	3.91	6.52
	U_{10} - L_{10}	-198.68	0.00	-92.72			0.75	1.00	0.00	-69.54	0.00	0.00	Vehicle	Vehicle	-----	-408.95	2.76	36.13	33.3715	1192.34	131.71	10.7083	2.3777	40.53	31.44	-965.49	16.16	0.83	11.50	0.80	-----	-----	16.16	-----	-----	19.50	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	4.69	7.82
	U_{11} - L_{11}	-171.40	0.00	-83.62			0.75	1.00	0.00	-62.71	0.00	0.00	Vehicle	Vehicle	-----	-358.69	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.50	7.49
	U_{12} - L_{12}	-128.37	0.00	-75.62			0.75	1.00	0.00	-56.71	0.00	0.00	Vehicle	Vehicle	-----	-289.75	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	-----	-----	16.25	-----	-----	32.50	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	4.28	7.13
	U_{13} - L_{13}	-96.65	0.00	-65.22			0.75	1.00	0.00	-48.92	0.00	0.00	Vehicle	Vehicle	-----	-231.62	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	3.48	5.80
	U_{14} - L_{14}	-11.04	-43.77	-41.93			0.75	1.00	-31.45	-32.82	0.00	0.00	Vehicle	Vehicle	-----	-85.48	0.00	16.85	16.8486	556.00	131.71	9.2605	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.10	10.17
	U_{15} - L_{15}	-2.47	-38.73	7.62			0.75	1.00	5.71	-29.04	0.00	0.00	Vehicle	Vehicle	9.16	-66.14	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	45.19	75.31	7.04	11.73
	U_{16} - L_{16}	-31.27	-45.02	6.69			0.75	1.00	5.02	-33.76	0.00	0.00	Vehicle	Vehicle	-----	-113.81	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.51	9.18
	U_{17} - L_{17}	-105.05	-68.19	7.36			0.75	1.00	5.52	-51.14	0.00	0.00	Vehicle	Vehicle	-----	-247.38	0.00	20.66	20.6644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	3.59	5.99
	U_{18} - L_{18}	-126.74	-71.29	6.02			0.75	1.00	4.51	-53.47	0.00	0.00	Vehicle	Vehicle	-----	-280.61	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	4.47	7.45
	U_{19} - L_{19}	-166.77	-73.72	5.54			0.75	1.00	4.16	-55.29	0.00	0.00	Vehicle	Vehicle	-----	-336.59	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.88	8.13
	U_{20} - L_{20}	-184.59	-81.87	5.13			0.75	1.00	3.84	-61.40	0.00	0.00	Vehicle	Vehicle	-----	-373.00	0.00	30.63	30.6305	1010.81	131.71	20.3229	2.8427	64.34	29.06	-756.66	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.88	6.47
Structure 2	U_0 - L_0	-203.59	18.83	-97.02			0.75	1.00	14.12	-72.76	0.00	0.00	Vehicle	Vehicle	-----	-422.32	0.00	33.27	33.2657	1097.77	131.71	19.1510	2.8573	60.32	29.54	-835.23	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.62	6.03
	U_1 - L_1	-176.11	20.54	-88.29			0.75	1.00	15.41	-66.22	0.00	0.00	Vehicle	Vehicle	-----	-372.41	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	4.50	7.50
	U_2 - L_2	-137.55	19.67	-74.55			0.75	1.00	14.75	-55.91	0.00	0.00	Vehicle	Vehicle	-----	-299.96	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.69	7.81
	U_3 - L_3	-117.62	20.69	-65.23			0.75	1.00	15.52	-48.92	0.00	0.00	Vehicle	Vehicle	-----	-258.90	0.00	22.73	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	45.00	Pass	4.91	12.00	Pass	-----	-----	-----	-----	-----	4.10	6.83
	U_4 - L_4	-50.97	16.36	-46.87			0.75	1.00	12.27	-35.15	0.00	0.00	Vehicle	Vehicle	-----	-142.42	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	4.92	8.20
	U_5 - L_5	-13.78	16.11	-39.71			0.75	1.00	12.08	-29.78	0.00	0.00	Vehicle	Vehicle	8.27	-82.44	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	21.92	36.53	6.58	10.97
	U_6 - L_6	45.47	12.78	-24.01			0.75	1.00	9.59	-18.01	0.00	0.00	Vehicle	Vehicle	79.89	-----	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	23.92	39.86	-----	-----
	U_7 - L_7	-22.33	-9.71	0.00			0.75	1.00	0.00	-7.28	0.00	0.00	Vehicle	Vehicle	-----	-44.81	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	26.22	43.70		
	U_8 - L_8	-120.08	-55.17	0.00			0.75	1.00	0.00	-41.38	0.00	0.00	Vehicle	Vehicle	-----	-245.75	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	-----	-----	15.75	-----	-----	36.00	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	5.95	9.92		
	U_9 - L_9	-177.03	-65.81	0.00			0.75	1.00	0.00	-49.36	0.00	0.00	Vehicle	Vehicle	-----	-337.08	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	6.25	10.42		
	U_{10} - L_{10}	-205.88	-84.28	0.00			0.75	1.00	0.00	-63.21	0.00	0.00	Vehicle	Vehicle	-----	-404.60	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	5.44	9.06		
	U_{11} - L_{11}	-239.23	-123.01	0.00			0.75	1.00	0.00	-92.25	0.00	0.00	Vehicle	Vehicle	-----	-510.89	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.42	5.70		
	U_{12} - L_{12}	-257.95	-122.38	-3.70			0.75	1.00	-2.78	-91.78	0.00	0.00	Vehicle	Vehicle	-----	-534.21	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.55	5.92		
	U_{13} - L_{13}	-243.82	-101.41	6.38			0.75	1.00	4.78	-76.05	0.00	0.00	Vehicle	Vehicle	-----	-481.75	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.52	5.87		
	U_{14} - L_{14}	-420.85	-81.90	-84.60			0.75	1.00	-61.43	-63.45	0.00	0.00	Vehicle	Vehicle	-----	-684.58	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	-----	-----	-----	5.97	9.95		
	U_{15} - L_{15}	-158.83	21.71	-89.93			0.75	1.00	16.28	-67.45	0.00	0.00	Vehicle	Vehicle	-----	-352.62	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.73	7.88		
	U_{16} - L_{16}	-174.02	13.01	-108.29			0.75	1.00	9.76	-81.22	0.00	0.00	Vehicle	Vehicle	-----	-402.20	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.64	6.06		
	U_{17} - L_{17}	-156.46	10.83	-108.06			0.75	1.00	8.12	-81.04	0.00	0.00	Vehicle	Vehicle	-----	-378.99	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.46	5.76		
	U_{18} - L_{18}	-142.21	2.93	-102.40			0.75	1.00	2.20	-76.80	0.00	0.00	Vehicle	Vehicle	-----	-351.27	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.40	5.66		
	U_{19} - L_{19}	-113.66	3.68	-59.36			0.75	1.00	2.76	-44.52	0.00	0.00	Vehicle	Vehicle	-----	-244.22	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	5.36	8.93		
	U_{20} - L_{20}	-76.51	-1.07	-52.47			0.75	1.00	-0.80	-39.35	0.00	0.00	Vehicle	Vehicle	-----	-184.72	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	4.55	7.59		
	U_{21} - L_{21}	-45.77	0.44	-44.93			0.75	1.00	0.33	-33.70	0.00	0.00	Vehicle	Vehicle	-----	-132.52	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.25	8.75		
	U_{22} - L_{22}	-17.72	-7.40	-9.60			0.75	1.00	-5.55	-7.20	0.00	0.00	Vehicle	Vehicle	-----	-38.63	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	27.02	45.04		
	U_{23} - L_{23}	-30.69	-43.91	1.75			0.75	1.00	1.31	-32.94	0.00	0.00	Vehicle	Vehicle	-----	-111.25	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.64	9.41		
	U_{24} - L_{24}	-62.06	-51.51	-0.18			0.75	1.00	-0.13	-38.63	0.00	0.00	Vehicle	Vehicle	-----	-164.39	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	4.86	8.10		
	U_{25} - L_{25}	-103.15	-67.56	3.09			0.75	1.00	2.32	-50.67	0.00	0.00	Vehicle	Vehicle	-----	-243.88	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	4.83	8.06		
	U_{26} - L_{26}	-134.38	-111.39	0.91			0.75	1.00	0.69	-83.54	0.00	0.00	Vehicle	Vehicle	-----	-355.69	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.18	5.30		
	U_{27} - L_{27}	-156.03	-107.75	5.68			0.75	1.00	4.26	-80.81	0.00	0.00	Vehicle	Vehicle	-----	-377.93	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.47	5.78		
	U_{28} - L_{28}	-179.40	-108.87	4.00			0.75	1.00	3.00	-81.65	0.00	0.00	Vehicle	Vehicle	-----	-410.14	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.58	5.96		
	U_{29} - L_{29}	-171.60	-100.35	8.26			0.75	1.00	6.20	-75.26	0.00	0.00	Vehicle	Vehicle	-----	-386.15	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.13	6.89		
	U_{30} - L_{30}	-393.29	-73.83	-99.67			0.75	1.00	-55.37	-74.75	0.00	0.00	Vehicle	Vehicle	-----	-673.24	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	-----	-----	-----	5.29	8.81		
	U_{31} - L_{31}	-203.49	14.69	-103.65			0.75	1.00	11.02	-77.73	0.00	0.00	Vehicle	Vehicle	-----	-432.95	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.76	6.26		
	U_{32} - L_{32}	-222.61	3.46	-123.82			0.75	1.00	2.60	-92.87	0.00	0.00	Vehicle	Vehicle	-----	-490.61	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.74	6.24		
	U_{33} - L_{33}	-211.72	0.00	-112.56			0.75

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capicity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Structure 1	U_0 - L_1	53.29	-23.24	64.87			0.75	1.00	48.65	-17.43	0.00	0.00	Vehicle	Vehicle	174.69	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	**6.57**	**10.96**	-----	-----
	U_1 - L_2	10.80	-19.75	50.19			0.75	1.00	37.64	-14.81	0.00	0.00	Vehicle	Vehicle	95.59	-18.06	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**6.65**	**11.08**	**14.02**	**23.37**
	U_2 - L_3	-44.05	-19.52	41.02			0.75	1.00	30.77	-14.64	0.00	0.00	Vehicle	Vehicle	9.39	-88.99	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**9.20**	**15.33**	**11.89**	**19.82**
	U_3 - L_4	-76.77	-22.32	16.93			0.75	1.00	12.70	-16.74	0.00	0.00	Vehicle	Vehicle	-----	-136.08	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**9.30**	**15.51**
	U_4 - L_4	118.48	15.38	78.46			0.75	1.00	58.85	11.53	0.00	0.00	Vehicle	Vehicle	281.53	-----	0.00	20.66	20.6644	681.93	131.71	11.6953	2.0011	52.60	30.37	-533.41	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**4.14**	**6.90**	-----	-----
	U_5 - L_5	137.62	15.27	60.75			0.75	1.00	45.56	11.45	0.00	0.00	Vehicle	Vehicle	277.62	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**6.76**	**11.26**	-----	-----
	U_6 - L_6	157.39	0.00	106.30			0.75	1.00	79.73	0.00	0.00	0.00	Vehicle	Vehicle	377.34	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.71**	**6.19**	-----	-----
	U_7 - L_7	149.33	9.55	89.24			0.75	1.00	66.93	7.16	0.00	0.00	Vehicle	Vehicle	339.15	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.49**	**7.49**	-----	-----
	U_8 - L_8	249.21	8.55	92.91			0.75	1.00	69.68	6.41	0.00	0.00	Vehicle	Vehicle	474.95	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**6.14**	**10.23**	-----	-----
	U_9 - L_{10}	260.39	2.57	93.96			0.75	1.00	70.47	1.93	0.00	0.00	Vehicle	Vehicle	491.19	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.98**	**9.96**	-----	-----
	U_{10} - L_{11}	236.43	9.26	83.09			0.75	1.00	62.32	6.94	0.00	0.00	Vehicle	Vehicle	442.38	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**6.49**	**10.82**	-----	-----
	U_{11} - L_{12}	212.05	9.84	80.52			0.75	1.00	60.39	7.38	0.00	0.00	Vehicle	Vehicle	406.51	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.62**	**9.36**	-----	-----
	U_{12} - L_{13}	151.78	0.00	91.99			0.75	1.00	68.99	0.00	0.00	0.00	Vehicle	Vehicle	346.80	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**4.17**	**6.95**	-----	-----
	U_{13} - L_{14}	108.73	0.00	68.32			0.75	1.00	51.24	0.00	0.00	0.00	Vehicle	Vehicle	252.36	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**3.74**	**6.23**	-----	-----
	U_{14} - L_{15}	-24.56	-11.96	33.27			0.75	1.00	24.95	-8.97	0.00	0.00	Vehicle	Vehicle	22.13	-51.37	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**10.88**	**18.13**	**20.32**	**33.86**
	U_{15} - L_{15}	23.90	-10.04	54.54			0.75	1.00	40.90	-7.53	0.00	0.00	Vehicle	Vehicle	119.70	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.92**	**9.87**	-----	-----
	U_{17} - L_{16}	120.04	-10.41	73.33			0.75	1.00	55.00	-7.81	0.00	0.00	Vehicle	Vehicle	275.21	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**4.41**	**7.36**	-----	-----
	U_{18} - L_{17}	144.84	-8.72	81.04			0.75	1.00	60.78	-6.54	0.00	0.00	Vehicle	Vehicle	319.99	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.99**	**8.32**	-----	-----
	U_{19} - L_{18}	193.27	-7.20	77.05			0.75	1.00	57.79	-5.40	0.00	0.00	Vehicle	Vehicle	376.46	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.37**	**8.95**	-----	-----
	U_{20} - L_{19}	193.75	-5.85	77.31			0.75	1.00	57.98	-4.39	0.00	0.00	Vehicle	Vehicle	377.50	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.34**	**8.91**	-----	-----
	U_0 - L_1	202.60	-21.43	91.66			0.75	1.00	68.74	-16.07	0.00	0.00	Vehicle	Vehicle	412.32	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.02**	**8.36**	-----	-----
	U_1 - L_2	190.84	-24.28	90.56			0.75	1.00	67.92	-18.21	0.00	0.00	Vehicle	Vehicle	395.25	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.18**	**8.64**	-----	-----
	U_2 - L_3	155.90	-23.90	75.11			0.75	1.00	56.33	-17.92	0.00	0.00	Vehicle	Vehicle	324.72	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.27**	**8.78**	-----	-----
	U_3 - L_4	134.06	-26.34	67.84			0.75	1.00	50.88	-19.75	0.00	0.00	Vehicle	Vehicle	284.52	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**5.22**	**8.71**	-----	-----
	U_4 - L_5	46.01	-20.61	50.07			0.75	1.00	37.55	-15.46	0.00	0.00	Vehicle	Vehicle	141.17	-----	0.00	16.85	16.8486	556.00	131.71	15.3958	1.9682	70.40	28.29	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**6.10**	**10.16**	-----	-----
	U_5 - L_6	3.43	-21.44	38.21			0.75	1.00	28.66	-16.08	0.00	0.00	Vehicle	Vehicle	66.55	-30.38	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**8.88**	**14.80**	**12.28**	**20.47**
	U_6 - L_7	-84.31	-19.27	18.60			0.75	1.00	13.95	-14.45	0.00	0.00	Vehicle	Vehicle	-----	-140.91	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	**11.42**	**19.03**
	U_7 - L_7	137.33	0.00	64.83			0.75	1.00	48.62	0.00	0.00	0.00	Vehicle	Vehicle	283.87	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**5.75**	**9.58**	-----	-----
	U_8 - L_8	210.92	8.29	77.90			0.75	1.00	58.43	6.22	0.00	0.00	Vehicle	Vehicle	400.78	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.13**	**8.55**	-----	-----
	U_{10} - L_9	236.39	8.00	97.69			0.75	1.00	73.27	6.00	0.00	0.00	Vehicle	Vehicle	466.06	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.43**	**7.39**	-----	-----
	U_{11} - L_{10}	274.65	2.13	98.38			0.75	1.00	73.79	1.60	0.00	0.00	Vehicle	Vehicle	516.91	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.63**	**7.72**	-----	-----
	U_{12} - L_{11}	281.09	3.14	130.62			0.75	1.00	97.96	2.35	0.00	0.00	Vehicle	Vehicle	577.67	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.45**	**5.75**	-----	-----
	U_{13} - L_{12}	278.14	-6.79	108.93			0.75	1.00	81.69	-5.09	0.00	0.00	Vehicle	Vehicle	538.59	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.67**	**6.11**	-----	-----
	U_{14} - L_{13}	235.47	-11.41	82.15			0.75	1.00	61.61	-8.56	0.00	0.00	Vehicle	Vehicle	439.61	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.28**	**8.80**	-----	-----
	U_{15} - L_{15}	143.01	-23.95	72.32			0.75	1.00	54.24	-17.96	0.00	0.00	Vehicle	Vehicle	303.44	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.62**	**9.36**	-----	-----
	U_{16} - L_{17}	181.04	-12.55	113.94			0.75	1.00	85.45	-9.41	0.00	0.00	Vehicle	Vehicle	420.49	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.72**	**6.19**	-----	-----
	U_{17} - L_{18}	171.16	-11.87	112.18			0.75	1.00	84.13	-8.90	0.00	0.00	Vehicle	Vehicle	404.79	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.42**	**5.70**	-----	-----
	U_{18} - L_{19}	150.64	-5.03	69.41			0.75	1.00	52.06	-3.77	0.00	0.00	Vehicle	Vehicle	308.63	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.76**	**9.60**	-----	-----
	U_{19} - L_{20}	125.86	-4.88	62.22			0.75	1.00	46.67	-3.66	0.00	0.00	Vehicle	Vehicle	264.73	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**6.14**	**10.23**	-----	-----
	U_{20} - L_{21}	76.04	-1.30	60.29			0.75	1.00	45.22	-0.97	0.00	0.00	Vehicle	Vehicle	196.83	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.67**	**7.78**	-----	-----
	U_{21} - L_{22}	38.33	-1.57	39.39			0.75	1.00	29.54	-1.18	0.00	0.00	Vehicle	Vehicle	113.84	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**7.91**	**13.18**	-----	-----
	U_{23} - L_{22}	18.05	-3.51	39.33			0.75	1.00	29.50	-2.63	0.00	0.00	Vehicle	Vehicle	87.38	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.33**	**13.89**	-----	-----
	U_{24} - L_{23}	58.57	-2.89	60.69			0.75	1.00	45.52	-2.17	0.00	0.00	Vehicle	Vehicle	174.77	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.87**	**8.11**	-----	-----
	U_{25} - L_{24}	114.98	-5.19	70.99			0.75	1.00	53.24	-3.89	0.00	0.00	Vehicle	Vehicle	264.83	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**5.50**	**9.17**	-----	-----
	U_{26} - L_{25}	143.00	-4.40	82.11			0.75	1.00	61.58	-3.30	0.00	0.00	Vehicle	Vehicle	319.32	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.95**	**8.24**	-----	-----
	U_{27} - L_{26}	173.82	-7.74	114.87			0.75	1.00	86.15	-5.80	0.00	0.00	Vehicle	Vehicle	412.63	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.32**	**5.53**	-----	-----
	U_{28} - L_{27}	186.60	-7.31	117.05			0.75	1.00	87.79	-5.48	0.00	0.00	Vehicle	Vehicle	432.78	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.58**	**5.96**	-----	-----
	U_{29} - L_{28}	190.75	-9.48	104.90			0.75	1.00	78.68	-7.11	0.00	0.00	Vehicle	Vehicle	418.43	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.51**	**5.85**	-----	-----
	U_{30} - L_{29}	161.86	-13.84	68.96			0.75	1.00	51.72	-10.38	0.00	0.00	Vehicle	Vehicle	322.49	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.67**	**9.45**	-----	-----
	U_{31} - L_{31}	191.72	-16.99	86.39			0.75	1.00	64.80	-12.74	0.00	0.00	Vehicle	Vehicle	389.63	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.42**	**9.04**	-----	-----
	U_{32} - L_{32}	226.45	-15.12	108.22			0.75	1.00	81.17	-11.34	0.00	0.00	Vehicle	Vehicle	470.24	-----	0.00	30.63	30.6305	1010.81	131.71	17.8750	2.8427	56.59	29.95	-779.87	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.07**	**6.79**	-----	-----
	U_{33} - L_{33}	243.42	-2.65	127.76			0.75	1.00	95.82	-1.99	0.00	0.00	Vehicle	Vehicle	524.06	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.76**	**6.27**	-----	-----
	U_{34} - L_{34}	239.13	-2.02	89.02			0.75	1.00	66.77	-1.52	0.00	0.00	Vehicle	Vehicle	455.53	-----	0.00	33.27	33.2657	1097.77	131.71	14.5729	2.8573	45.90	31.00	-876.43	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**5.44**	**9.07**	-----	-----
	U_{35} - L_{35}	222.16	8.68	73.16			0.75	1.00	54.87	6.51	0.00	0.00	Vehicle	Vehicle	407.69	-----	0.00	30.63	30.6305	1010.81	131.71	13.7604	2.8427	43.57	31.19	-812.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**6.07**	**10.12**	-----	-----
	U_{36} - L_{36}	201.17	9.85	72.21			0.75	1.00	54.16	7.39	0.00	0.00	Vehicle	Vehicle	378.86	-----	0.00	27.98	27.9777	923.26	131.71	13.3125	2.8289	42.35	31.29	-744.20	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capicity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Upper Chord	Structure 1	U$_0$ - U$_1$	-66.70	-38.85	-8.81	-8.83	2.21	0.90	1.00	-7.93	-34.97	2.21	-8.83	Vehicle	Vehicle	-----	-162.47	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	8.56	14.26
		U$_1$ - U$_2$	-86.55	30.99	-71.48	6.01	-16.34	0.90	1.00	27.89	-64.33	6.01	-16.34	Vehicle	Vehicle	-----	-251.90	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	4.47	7.44
		U$_2$ - U$_3$	-48.14	45.80	-68.63	9.46	-19.05	0.90	1.00	41.22	-61.76	9.46	-19.05	Vehicle	Vehicle	26.72	-196.41	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	10.47	17.45	5.02	8.37
		U$_3$ - U$_4$	36.58	58.88	-55.48	12.74	-17.47	0.90	1.00	52.99	-49.94	12.74	-17.47	Vehicle	Pedestrian	162.38	-61.98	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	7.18	11.97	7.14	8.93
		U$_4$ - U$_5$	38.93	59.05	-54.96	12.80	-17.38	0.90	1.00	53.15	-49.46	12.80	-17.38	Vehicle	Pedestrian	165.77	-58.00	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	7.14	11.89	7.23	9.04
		U$_5$ - U$_6$	154.60	65.52	-30.80	15.16	-12.03	0.90	1.00	58.97	-27.72	15.16	-12.03	Vehicle	Pedestrian	328.75	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	5.26	8.76	-----	-----
		U$_6$ - U$_7$	288.38	70.40	-4.81	17.14	-4.31	0.90	1.00	63.36	-4.33	17.14	-4.31	Vehicle	Pedestrian	512.17	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	4.89	8.14	-----	-----
		U$_7$ - U$_8$	410.94	20.94	19.67	18.28	4.35	0.90	1.00	18.84	17.70	18.28	4.35	Pedestrian	Vehicle	594.54	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	15.07	18.84	-----	-----
		U$_8$ - U$_9$	311.57	67.88	9.58	19.08	0.00	0.90	1.00	61.09	8.62	19.08	0.00	Vehicle	Vehicle	537.41	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	6.16	10.27	-----	-----
		U$_9$ - U$_{10}$	78.52	17.60	0.00	5.48	0.00	0.90	1.00	15.84	0.00	5.48	0.00	Pedestrian	Vehicle	136.72	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	23.66	29.58	-----	-----
		U$_{10}$ - U$_{11}$	-141.43	-32.13	-5.10	-7.31	0.00	0.90	1.00	-4.59	-28.92	0.00	-7.31	Vehicle	Vehicle	-----	-246.51	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	9.46	15.77
		U$_{11}$ - U$_{12}$	-338.03	37.37	-116.01	9.77	-27.93	0.90	1.00	33.63	-104.41	9.77	-27.93	Vehicle	Vehicle	-----	-665.66	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	43.07	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	2.73	4.55
		U$_{12}$ - U$_{13}$	-480.08	32.89	-130.73	8.23	-34.32	0.90	1.00	29.60	-117.66	8.23	-34.32	Vehicle	Vehicle	-----	-879.04	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	44.42	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	3.35	5.59
		U$_{13}$ - U$_{14}$	-570.65	28.09	-136.25	6.68	-37.21	0.90	1.00	25.28	-122.62	6.68	-37.21	Vehicle	Vehicle	-----	-1007.52	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.78	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.70	6.17
		U$_{14}$ - U$_{15}$	-571.07	27.96	-136.09	6.65	-37.22	0.90	1.00	25.16	-122.48	6.65	-37.22	Vehicle	Vehicle	-----	-1007.77	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.78	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.71	6.18
		U$_{15}$ - U$_{16}$	-581.88	21.93	-125.09	4.98	-36.12	0.90	1.00	19.74	-112.58	4.98	-36.12	Vehicle	Vehicle	-----	-1000.37	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.94	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.97	6.62
		U$_{16}$ - U$_{17}$	-539.46	9.48	-107.70	3.52	-31.85	0.90	1.00	8.53	-96.93	3.52	-31.85	Pedestrian	Vehicle	-----	-911.32	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	4.88	8.13
		U$_{17}$ - U$_{18}$	-422.33	10.66	-79.04	2.26	-25.05	0.90	1.00	9.59	-71.14	2.26	-25.05	Vehicle	Pedestrian	-----	-705.33	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	45.00	Pass	32.00	50.00	Pass	8.00	12.00	Pass	-----	-----	4.56	5.70
		U$_{18}$ - U$_{19}$	-286.19	6.02	-50.72	1.28	-16.96	0.90	1.00	5.41	-45.65	1.28	-16.96	Vehicle	Pedestrian	-----	-473.78	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	5.00	6.25
		U$_{19}$ - U$_{20}$	-140.84	1.60	-22.87	0.55	-8.68	0.90	1.00	1.44	-20.58	0.55	-8.68	Pedestrian	Pedestrian	-----	-230.64	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	14.67	18.34
	Structure 2	U$_0$ - U$_1$	-147.44	-29.54	-18.33	-4.88	0.36	0.90	1.00	-16.50	-26.59	0.36	-4.88	Vehicle	Vehicle	-----	-249.28	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	11.28	18.80
		U$_1$ - U$_2$	-319.06	-23.62	-46.36	1.96	-13.36	0.90	1.00	-21.26	-41.72	1.96	-13.36	Vehicle	Vehicle	-----	-505.18	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	6.79	11.32
		U$_2$ - U$_3$	-460.91	9.57	-38.82	-20.95	3.77	0.90	1.00	8.61	-34.94	3.77	-20.95	Pedestrian	Pedestrian	-----	-690.00	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.69	4.00	0.69	16.00	95.35	272.00	30.22	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	8.83	11.03
		U$_3$ - U$_4$	-580.03	45.31	-147.96	5.92	-27.68	0.90	1.00	40.78	-133.16	5.92	-27.68	Vehicle	Vehicle	-----	-1042.56	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.17	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.43	5.72
		U$_4$ - U$_5$	-616.49	58.79	-169.36	7.86	-31.35	0.90	1.00	52.91	-152.43	7.86	-31.35	Vehicle	Vehicle	-----	-1131.69	15.14	69.44	54.2975	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.65	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.43	5.71
		U$_5$ - U$_6$	-604.71	72.36	-184.02	9.87	-32.88	0.90	1.00	65.12	-165.62	9.87	-32.88	Vehicle	Vehicle	-----	-1144.96	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.39	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.20	5.33
		U$_6$ - U$_7$	-514.78	82.51	-178.72	11.56	-31.23	0.90	1.00	74.26	-160.85	11.56	-31.23	Vehicle	Vehicle	-----	-1017.72	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.71	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.08	5.14
		U$_7$ - U$_8$	-512.83	82.58	-178.38	11.57	-31.18	0.90	1.00	74.33	-160.54	11.57	-31.18	Vehicle	Vehicle	-----	-1014.51	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.78	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.10	5.16
		U$_8$ - U$_9$	-373.51	91.48	-154.31	13.16	-27.41	0.90	1.00	82.33	-138.88	13.16	-27.41	Vehicle	Vehicle	-----	-786.47	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	3.25	5.42
		U$_9$ - U$_{10}$	-181.05	95.19	-115.70	14.25	-21.42	0.90	1.00	85.67	-104.13	14.25	-21.42	Vehicle	Vehicle	-----	-460.97	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	4.06	6.77
		U$_{10}$ - U$_{11}$	26.18	97.84	-76.42	15.21	-14.40	0.90	1.00	88.06	-68.77	15.21	-14.40	Vehicle	Vehicle	224.82	-114.98	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	6.03	10.04	6.94	11.57
		U$_{11}$ - U$_{12}$	237.39	94.64	-33.26	15.56	-6.85	0.90	1.00	85.18	-29.93	15.56	-6.85	Vehicle	Vehicle	493.16	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	4.74	7.90	-----	-----
		U$_{12}$ - U$_{13}$	435.89	91.64	4.73	15.82	0.56	0.90	1.00	82.48	4.26	15.82	0.56	Vehicle	Vehicle	745.36	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	5.12	8.53	-----	-----
		U$_{13}$ - U$_{14}$	595.84	21.51	35.63	15.74	6.91	0.90	1.00	32.06	19.36	15.74	6.91	Pedestrian	Pedestrian	852.27	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	16.21	20.26	-----	-----
		U$_{14}$ - U$_{15}$	615.53	121.50	-5.46	24.37	0.00	0.90	1.00	109.35	-4.91	24.37	0.00	Vehicle	Vehicle	1037.12	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.21	8.68	-----	-----
		U$_{15}$ - U$_{16}$	486.15	67.42	11.60	14.17	3.08	0.90	1.00	60.68	10.44	14.17	3.08	Vehicle	Vehicle	763.47	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	7.77	12.96	-----	-----
		U$_{16}$ - U$_{17}$	339.27	43.41	-4.92	11.57	0.00	0.90	1.00	39.07	-4.43	11.57	0.00	Vehicle	Vehicle	525.71	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	10.82	18.04	-----	-----
		U$_{17}$ - U$_{18}$	192.13	26.79	-5.44	4.46	0.00	0.90	1.00	24.11	-4.90	4.46	0.00	Vehicle	Vehicle	302.01	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	14.29	23.81	-----	-----
		U$_{18}$ - U$_{19}$	53.83	85.46	-40.65	-2.79	-12.78	0.90	1.00	76.91	-36.58	-2.79	-12.78	Vehicle	Pedestrian	236.63	-10.23	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	5.56	9.26	11.36	14.21
		U$_{19}$ - U$_{20}$	-58.94	88.05	-120.54	15.07	-15.67	0.90	1.00	79.24	-108.48	15.07	-15.67	Vehicle	Vehicle	95.07	-311.67	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.66	11.09	3.51	5.84
	Structure 3	U$_0$ - U$_1$	-125.32	87.98	-125.82	14.77	-16.52	0.90	1.00	79.18	-113.24	14.77	-16.52	Vehicle	Vehicle	8.65	-408.27	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.46	14.11	3.77	6.28
		U$_1$ - U$_2$	-146.72	87.13	-122.04	14.37	-22.74	0.90	1.00	78.41	-109.84	14.37	-22.74	Vehicle	Vehicle	-----	-428.71	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.77	6.28
		U$_2$ - U$_3$	-146.49	86.99	-121.75	14.36	-22.72	0.90	1.00	78.29	-109.57	14.36	-22.72	Vehicle	Vehicle	-----	-427.84	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.78	6.30
		U$_3$ - U$_4$	-112.53	83.47	-104.68	13.88	-21.04	0.90	1.00	75.12	-94.21	13.88	-21.04	Vehicle	Vehicle	16.48	-350.42	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.82	14.70	4.61	7.69
		U$_4$ - U$_5$	-36.03	79.54	-45.90	13.40	-15.01	0.90	1.00	71.59	-41.31	13.40	-15.01	Vehicle	Pedestrian	108.28	-138.36	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	7.18	11.96	9.33	11.66
		U$_5$ - U$_6$	80.94	73.11	-49.48	12.93	-12.15	0.90	1.00	65.80	-44.54	12.93	-12.15	Vehicle	Vehicle	247.78	-----	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	6.25	10.42	-----	-----
		U$_6$ - U$_7$	220.82	67.18	-16.19	12.57	-5.86	0.90	1.00	60.46	-14.57	12.57	-5.86	Vehicle	Pedestrian	418.06	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	5.41	9.02	-----	-----
		U$_7$ - U$_8$	363.48	59.81	16.97	12.37	0.18	0.90	1.00	53.82	15.27	12.37	0.18	Vehicle	Vehicle	589.15	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	7.59	12.64	-----	-----
		U$_8$ - U$_9$	503.92	4.42	10.56	12.24	3.11	0.90	1.00	9.50	3.98	12.24	3.11	Pedestrian	Pedestrian	690.41	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	28.28	35.35	-----	-----
		U$_9$ - U$_{10}$	616.62	-11.02	127.28	0.00	7.42	0.90	1.00	114.56	-9.92	7.42	0.00	Vehicle	Vehicle	1049.81	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Lower Chord	Structure 1	L$_0$- L$_1$	-1.94	-5.28	0.68	-2.06	0.37	0.90	1.00	0.61	-4.75	0.37	-2.06	Pedestrian	Pedestrian	-----	-13.59	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	-----	-----	**49.51**	**61.88**
		L$_1$ - L$_2$	67.93	37.67	-18.03	0.00	5.88	0.90	1.00	33.91	-16.23	5.88	0.00	Vehicle	Vehicle	161.77	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.69**	**12.82**	-----	-----
		L$_2$ - L$_3$	78.83	-38.85	76.11	-7.39	15.48	0.90	1.00	68.50	-34.97	15.48	-7.39	Vehicle	Vehicle	250.89	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**5.17**	**8.61**	-----	-----
		L$_3$ - L$_4$	39.11	-53.62	72.66	-10.83	18.09	0.90	1.00	65.40	-48.26	18.09	-10.83	Vehicle	Vehicle	192.53	-53.73	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	**5.78**	**9.63**	**7.49**	**12.48**
		L$_4$ - L$_5$	-166.44	-76.17	40.21	-16.91	10.96	0.90	1.00	36.19	-68.55	10.96	-16.91	Vehicle	Vehicle	-----	-364.90	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**2.92**	**4.87**
		L$_5$ - L$_6$	-301.30	-81.30	14.18	-18.94	3.24	0.90	1.00	12.76	-73.17	3.24	-18.94	Vehicle	Vehicle	-----	-550.22	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	42.72	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**2.94**	**4.90**
		L$_6$ - L$_7$	-439.01	-86.43	-8.88	-21.52	-4.99	0.90	1.00	-7.99	-77.78	-4.99	-21.52	Pedestrian	Vehicle	-----	-739.24	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	44.12	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.90**	**6.50**
		L$_7$ - L$_8$	-551.71	-8.23	-115.97	0.00	-35.56	0.90	1.00	-7.41	-104.37	0.00	-35.56	Vehicle	Pedestrian	-----	-944.60	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	44.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.70**	**4.63**
		L$_8$ - L$_9$	-570.55	-126.08	4.28	-37.48	0.00	0.90	1.00	3.85	-113.47	0.00	-37.48	Vehicle	Vehicle	-----	-987.56	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	43.03	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.33**	**5.54**
		L$_9$ - L$_{10}$	-355.55	-48.22	-33.75	-13.03	-11.67	0.90	1.00	-30.37	-43.40	-11.67	-13.03	Pedestrian	Vehicle	-----	-556.24	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**8.15**	**13.59**
		L$_{10}$ - L$_{11}$	-118.56	-26.33	20.95	-12.42	0.00	0.90	1.00	18.85	-23.69	0.00	-12.42	Vehicle	Pedestrian	-----	-212.80	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**8.46**	**10.57**
		L$_{11}$ - L$_{12}$	103.33	23.92	0.00	0.50	0.00	0.90	1.00	21.52	0.00	0.50	0.00	Vehicle	Vehicle	180.96	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	**13.68**	**22.80**	-----	-----
		L$_{12}$ - L$_{13}$	300.47	-30.93	106.85	-8.15	17.86	0.90	1.00	96.17	-27.84	17.86	-8.15	Vehicle	Vehicle	598.96	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.21**	**7.01**	-----	-----
		L$_{13}$ - L$_{14}$	441.01	-26.49	121.22	-6.62	24.18	0.90	1.00	109.10	-23.84	24.18	-6.62	Vehicle	Vehicle	809.70	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.77**	**7.95**	-----	-----
		L$_{14}$ - L$_{15}$	546.80	-16.93	120.29	-3.50	24.61	0.90	1.00	108.26	-15.24	24.61	-3.50	Vehicle	Vehicle	945.40	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.70**	**9.49**	-----	-----
		L$_{15}$ - L$_{16}$	505.90	-11.45	103.07	-2.04	20.37	0.90	1.00	92.77	-10.31	20.37	-2.04	Vehicle	Vehicle	858.66	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**6.91**	**11.52**	-----	-----
		L$_{16}$ - L$_{17}$	398.64	-14.89	78.00	-0.84	12.78	0.90	1.00	70.20	-13.40	12.78	-0.84	Vehicle	Vehicle	670.33	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	**6.99**	**11.65**	-----	-----
		L$_{17}$ - L$_{18}$	263.76	-2.29	49.84	0.15	4.73	0.90	1.00	44.86	-2.06	4.73	0.15	Vehicle	Vehicle	440.07	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	**8.29**	**13.81**	-----	-----
		L$_{18}$ - L$_{19}$	118.86	-9.70	25.73	0.70	-3.28	0.90	1.00	23.16	-8.73	0.70	-3.28	Vehicle	Pedestrian	204.69	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**9.94**	**16.57**	-----	-----
		L$_{19}$ - L$_{20}$	-23.25	3.08	2.08	1.27	-12.00	0.90	1.00	2.78	1.87	1.27	-12.00	Pedestrian	Pedestrian	-----	-46.68	1.95	17.93	15.9750	591.53	131.71	10.8073	5.7170	17.13	32.72	-498.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	-----	-----	-----	-----
		L$_0$- L$_1$	-35.95	-16.52	5.09	-5.13	1.19	0.90	1.00	4.58	-14.87	1.19	-5.13	Vehicle	Pedestrian	-----	-79.24	1.88	24.95	23.0700	823.35	131.71	10.8828	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	45.00	Pass	6.32	12.00	Pass	6.32	12.00	Pass	-----	-----	**19.96**	**24.95**
		L$_1$ - L$_2$	132.83	21.02	-4.26	2.94	-0.07	0.90	1.00	18.92	-3.83	2.94	-0.07	Vehicle	Vehicle	213.66	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**15.87**	**26.46**	-----	-----
		L$_2$ - L$_3$	304.11	68.95	20.25	10.53	-1.80	0.90	1.00	62.06	18.22	10.53	-1.80	Vehicle	Vehicle	529.80	-----	6.20	38.45	32.2500	1268.85	131.71	10.7370	6.1675	15.67	32.77	-1070.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	**6.50**	**10.83**	-----	-----
		L$_3$ - L$_4$	445.92	44.95	59.42	0.00	13.17	0.90	1.00	53.48	40.45	13.17	0.00	Vehicle	Vehicle	695.56	-----	9.45	51.58	42.1250	1701.98	131.71	10.7370	5.7558	16.79	32.73	-1434.93	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	**9.69**	**16.14**	-----	-----
		L$_4$ - L$_5$	567.84	-50.18	151.77	-6.10	24.82	0.90	1.00	136.60	-45.16	24.82	-6.10	Vehicle	Vehicle	1034.15	-----	11.00	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.90	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.75**	**7.92**	-----	-----
		L$_5$ - L$_6$	603.64	-63.75	173.09	-8.06	28.47	0.90	1.00	155.78	-57.37	28.47	-8.06	Vehicle	Vehicle	1122.25	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.58**	**7.63**	-----	-----
		L$_6$ - L$_7$	599.48	-80.60	194.19	-10.41	30.26	0.90	1.00	174.77	-72.54	30.26	-10.41	Vehicle	Vehicle	1158.00	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	**4.18**	**6.97**	-----	-----
		L$_7$ - L$_8$	373.94	-99.58	165.39	-13.66	24.93	0.90	1.00	148.85	-89.62	24.93	-13.66	Vehicle	Vehicle	808.63	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	**3.90**	**6.50**	-----	-----
		L$_8$ - L$_9$	195.71	-106.81	133.78	-15.12	19.52	0.90	1.00	120.40	-96.13	19.52	-15.12	Vehicle	Vehicle	515.29	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	**4.51**	**7.51**	-----	-----
		L$_9$ - L$_{10}$	-13.21	-109.67	94.33	-16.11	12.45	0.90	1.00	84.90	-98.70	12.45	-16.11	Vehicle	Vehicle	166.77	-231.03	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	**6.18**	**10.31**	**4.34**	**7.24**
		L$_{10}$ - L$_{11}$	-217.32	-110.50	56.28	-17.02	5.50	0.90	1.00	50.65	-99.45	5.50	-17.02	Vehicle	Vehicle	-----	-497.98	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.78	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	44.50	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**2.61**	**4.36**
		L$_{11}$ - L$_{12}$	-419.93	-107.74	17.71	-17.31	-2.04	0.90	1.00	15.94	-96.96	-2.04	-17.31	Vehicle	Vehicle	-----	-756.00	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	43.22	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.16**	**5.27**
		L$_{12}$ - L$_{13}$	-591.41	-108.84	-9.58	-18.75	-7.09	0.90	1.00	-8.62	-97.95	-7.09	-18.75	Pedestrian	Vehicle	-----	-981.06	9.73	59.10	49.3700	1950.30	131.71	10.9531	5.8186	16.94	32.73	-1644.04	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	44.24	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**4.12**	**6.87**
		L$_{13}$ - L$_{14}$	-724.23	-9.65	-152.30	0.00	-35.12	0.90	1.00	-8.69	-137.07	0.00	-35.12	Vehicle	Vehicle	-----	-1238.48	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.11	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.46**	**5.77**
		L$_{14}$ - L$_{15}$	-747.05	-163.72	10.77	-36.29	0.00	0.90	1.00	9.69	-147.34	0.00	-36.29	Vehicle	Vehicle	-----	-1290.40	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	42.24	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.13**	**5.21**
		L$_{15}$ - L$_{16}$	-632.15	11.59	-36.58	0.00	-31.21	0.90	1.00	10.43	-32.93	0.00	-31.21	Vehicle	Pedestrian	-----	-926.02	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**8.02**	**10.03**
		L$_{16}$ - L$_{17}$	-488.62	-95.35	20.06	-25.39	0.00	0.90	1.00	18.05	-85.81	0.00	-25.39	Vehicle	Vehicle	-----	-821.14	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	44.01	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.91**	**6.51**
		L$_{17}$ - L$_{18}$	-336.98	-12.94	-21.75	-18.12	0.00	0.90	1.00	-11.65	-19.57	0.00	-18.12	Vehicle	Pedestrian	-----	-499.33	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**8.29**	**10.36**
		L$_{18}$ - L$_{19}$	-183.61	-58.12	28.62	-11.34	4.48	0.90	1.00	25.76	-52.30	4.48	-11.34	Vehicle	Vehicle	-----	-352.02	1.25	26.75	25.5000	882.75	131.71	10.6406	5.6472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.47**	**7.46**
		L$_{19}$ - L$_{20}$	-45.77	-60.93	48.40	-9.58	8.92	0.90	1.00	43.56	-54.83	8.92	-9.58	Vehicle	Vehicle	34.88	-178.30	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**9.98**	**16.64**	**5.78**	**9.63**
	Structure 2	L$_{20}$ - L$_{21}$	68.00	-65.95	107.68	-9.12	11.57	0.90	1.00	96.92	-59.36	11.57	-9.12	Vehicle	Vehicle	298.38	-40.21	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**5.55**	**9.25**	**8.92**	**14.86**
		L$_{21}$ - L$_{22}$	133.90	-65.93	112.78	-8.82	13.61	0.90	1.00	101.50	-59.34	13.61	-8.82	Vehicle	Vehicle	394.00	-----	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.91**	**8.18**	-----	-----
		L$_{22}$ - L$_{23}$	122.50	-64.70	97.66	-7.58	11.79	0.90	1.00	87.89	-58.23	11.79	-7.58	Vehicle	Vehicle	349.68	-----	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.75**	**9.58**	-----	-----
		L$_{23}$ - L$_{24}$	46.70	-60.86	74.77	-7.09	8.09	0.90	1.00	67.29	-54.78	8.09	-7.09	Vehicle	Vehicle	206.51	-57.98	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**8.18**	**13.64**	**9.43**	**15.72**
		L$_{24}$ - L$_{25}$	-66.76	-57.66	7.88	-6.24	2.64	0.90	1.00	7.09	-51.89	2.64	-6.24	Pedestrian	Vehicle	-----	-199.21	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**5.86**	**9.77**
		L$_{25}$ - L$_{26}$	-205.83	-51.89	14.70	-5.88	-3.61	0.90	1.00	13.23	-46.70	-3.61	-5.88	Vehicle	Vehicle	-----	-368.76	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.73**	**7.88**
		L$_{26}$ - L$_{27}$	-350.61	-62.32	-14.18	-5.26	-6.72	0.90	1.00	-12.77	-56.08	-5.26	-6.72	Pedestrian	Vehicle	-----	-577.31	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	43.71	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**4.03**	**6.72**
		L$_{27}$ - L$_{28}$	-494.76	-52.97	-44.65	-5.10	-12.12	0.90	1.00	-40.19	-47.68	-5.10	-12.12	Vehicle	Vehicle	-----	-746.49	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**6.96**	**11.60**
		L$_{28}$ - L$_{29}$	-620.88	-45.06	44.17	-31.79	-17.19	0.90	1.00	39.75	-40.55	-17.19	-31.79	Vehicle	Pedestrian	-----	-924.69	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**7.24**	**9.05**
		L$_{29}$ - L$_{30}$	-716.82	-33.01	-140.75	0.00	-36.30	0.90	1.00	-29.71	-126.67	0.00	-36.30	Vehicle	Vehicle	-----	-1206.32	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.68	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.78**	**6

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Artic
(Case I considered in Max. Tension/Compression Load)

			Member Forces from STAAD													Member Capicity in Tension				Member Capicity in Compression							Plate Thickness/Ratios																				Axial Force Rating			
																												Web		Top Flange Component		Bot. Flange Component			Σ(s/t)	Area Enclosed	Web Members			Top Flange Component			Bot. Flange Component			Tension Member		Comp. Member	
Location		Member	D (kips)	LL_{max} (kips)	LL_{min} (kips)	Pedestrian $Load_{MAX}$	Pedestrian $Load_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL_{MAX}	Lane Reduction and Impact LL_{MIN}	Impact & Pedestrian $Load_{MAX}$	Impact & Pedestrian $Load_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	A_{deduct} (in^2) **	A_{gross} (in^2)	A_{net} (in^2)	$C_{Nominal}$ (kips)	C_c	L (feet)	r_{min} (in)	KL/r_{min} ***	F_{crit} **** (ksi)	$C_{nominal}$ (kips)	Depth (in)	Thickness (in)	Length (in)	Thickness (in)	Length (in)	Thickness (in)	Overall Width (in)		Enclosed (in^2)	b/t	Max. b/t	Pass	b/t	Max. b/t	Pass	b/t	Max. b/t	Pass	Inventory RF	Operating RF	Inventory RF	Operating RF
Structure 1		U_0 - L_0	-93.63	5.91	-59.06	3.44	-12.32	0.90	1.00	5.32	-53.15	3.44	-12.32	Pedestrian	Vehicle	-----	-236.88	1.63	16.85	15.2186	556.00	131.71	9.3438	1.9682	42.73	31.26	-447.73	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	2.83	4.72
		U_1 - L_1	-46.50	16.45	-39.66	2.93	-9.05	0.90	1.00	14.80	-35.69	2.93	-9.05	Vehicle	Vehicle	-----	-137.78	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.14	8.56
		U_2 - L_2	-0.07	14.71	-28.58	2.84	-5.68	0.90	1.00	13.24	-25.73	2.84	-5.68	Vehicle	Vehicle	28.60	-55.83	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	19.38	32.30	8.21	13.68
		U_3 - L_3	39.61	18.50	-3.84	2.70	-2.12	0.90	1.00	16.65	-3.46	2.70	-2.12	Vehicle	Pedestrian	87.57	-----	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	13.99	23.31	-----	-----
		U_4 - L_4	-30.21	-7.51	0.00	-3.47	0.00	0.90	1.00	0.00	-6.76	0.00	-3.47	Vehicle	Pedestrian	-----	-55.88	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	25.01	31.26
		U_5 - L_5	-130.50	-37.01	1.41	-10.24	0.00	0.90	1.00	1.27	-33.31	0.00	-10.24	Vehicle	Vehicle	-----	-241.83	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	5.31	8.85
		U_6 - L_6	-158.19	-39.12	6.08	-13.06	0.00	0.90	1.00	5.47	-35.21	0.00	-13.06	Vehicle	Pedestrian	-----	-284.08	3.13	24.86	21.7294	820.36	131.71	9.9479	2.0895	42.85	31.25	-660.40	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	5.80	7.25
		U_7 - L_7	-152.33	-41.93	10.78	-13.25	0.00	0.90	1.00	9.70	-37.74	0.00	-13.25	Vehicle	Pedestrian	-----	-280.87	2.88	23.11	20.2294	762.61	131.71	11.7292	2.0414	51.71	30.46	-598.26	16.25	0.44	10.00	0.50	-----	-----	16.25	-----	-----	37.14	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	4.83	6.04
		U_8 - L_8	-455.44	-24.17	-75.60	-12.74	-18.98	0.90	1.00	-21.75	-68.04	-12.74	-18.98	Pedestrian	Vehicle	-----	-739.48	3.28	51.23	47.9548	1690.75	131.71	16.6563	4.0434	37.07	31.69	-1380.20	15.25	0.82	15.64	1.31	-----	-----	15.25	-----	-----	18.60	45.00	Pass	5.96	12.00	Pass	-----	-----	-----	-----	-----	5.35	8.91
		U_9 - L_9	-287.50	3.30	-71.11	0.00	-18.21	0.90	1.00	2.97	-64.00	0.00	-18.21	Vehicle	Vehicle	-----	-512.41	3.50	31.56	28.0625	1041.56	131.71	12.1563	2.5582	42.77	31.26	-838.65	16.25	0.50	12.00	0.63	-----	-----	16.25	-----	-----	32.50	44.74	Pass	9.60	12.00	Pass	-----	-----	-----	-----	-----	3.35	5.59
		U_{10} - L_{10}	-276.27	1.76	-71.33	0.00	-17.55	0.90	1.00	1.58	-64.19	0.00	-17.55	Vehicle	Vehicle	-----	-498.23	2.76	36.13	33.3715	1192.34	131.71	10.7083	2.3777	40.53	31.44	-965.49	16.16	0.83	11.50	0.80	-----	-----	16.16	-----	-----	19.50	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	4.36	7.27
		U_{11} - L_{11}	-232.54	0.00	-63.41	0.00	-14.42	0.90	1.00	0.00	-57.07	0.00	-14.42	Vehicle	Vehicle	-----	-425.96	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.30	7.16
		U_{12} - L_{12}	-178.38	1.18	-53.56	0.00	-11.20	0.90	1.00	1.06	-48.20	0.00	-11.20	Vehicle	Vehicle	-----	-336.33	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	-----	-----	16.25	-----	-----	32.50	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	4.41	7.35
		U_{13} - L_{13}	-127.70	1.07	-22.73	0.00	-7.88	0.90	1.00	0.96	-20.46	0.00	-7.88	Vehicle	Pedestrian	-----	-212.06	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	7.14	8.92
		U_{14} - L_{14}	-30.38	-8.16	-7.66	0.00	-3.03	0.90	1.00	-6.90	-7.35	0.00	-3.03	Vehicle	Pedestrian	-----	-56.36	0.00	16.85	16.8486	556.00	131.71	9.2605	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	24.23	30.28
		U_{15} - L_{15}	-28.93	-20.81	6.52	-4.53	1.55	0.90	1.00	5.87	-18.73	1.55	-4.53	Vehicle	Vehicle	-----	-78.18	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	10.07	16.78
		U_{16} - L_{16}	-75.99	-26.54	6.38	-7.07	1.39	0.90	1.00	5.74	-23.89	1.39	-7.07	Vehicle	Vehicle	-----	-150.54	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.67	11.11
		U_{17} - L_{17}	-161.81	-40.00	6.95	-10.66	1.30	0.90	1.00	6.25	-36.00	1.30	-10.66	Vehicle	Vehicle	-----	-288.35	0.00	20.66	20.0644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	4.16	6.93
		U_{18} - L_{18}	-190.09	-41.75	5.96	-12.69	1.12	0.90	1.00	5.37	-37.57	1.12	-12.69	Vehicle	Pedestrian	-----	-328.80	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	5.34	6.67
		U_{19} - L_{19}	-228.09	-43.24	5.11	-14.99	0.97	0.90	1.00	4.60	-38.92	0.97	-14.99	Vehicle	Pedestrian	-----	-384.11	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	5.76	7.20
		U_{20} - L_{20}	-242.54	-42.25	-5.98	-15.62	0.95	0.90	1.00	-5.38	-38.02	0.95	-15.62	Vehicle	Pedestrian	-----	-402.46	0.00	27.86	27.8600	919.38	131.71	20.3229	2.7881	65.60	28.91	-684.53	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.24	5.30
		U_0 - L_0	-302.99	4.44	-78.50	2.22	-15.08	0.90	1.00	4.00	-70.65	2.22	-15.08	Pedestrian	Vehicle	-----	-546.97	0.00	33.27	33.2657	1097.77	131.71	19.1510	2.8573	60.32	29.54	-835.23	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	44.45	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	2.88	4.81
		U_1 - L_1	-268.80	17.28	-68.22	2.12	-13.67	0.90	1.00	15.55	-61.40	2.12	-13.67	Vehicle	Vehicle	-----	-482.46	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.94	6.57
		U_2 - L_2	-220.88	18.55	-63.77	2.34	-12.32	0.90	1.00	16.70	-57.39	2.34	-12.32	Vehicle	Vehicle	-----	-411.50	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.70	6.16
		U_3 - L_3	-175.24	19.88	-57.11	2.49	-10.35	0.90	1.00	17.89	-51.40	2.49	-10.35	Vehicle	Vehicle	-----	-339.19	0.00	22.73	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	45.00	Pass	4.91	12.00	Pass	-----	-----	-----	-----	-----	3.23	5.38
		U_4 - L_4	-82.09	17.07	-38.79	2.21	-6.62	0.90	1.00	15.36	-34.91	2.21	-6.62	Vehicle	Vehicle	-----	-182.35	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	4.42	7.36
		U_5 - L_5	-19.91	16.84	-27.37	2.23	-4.16	0.90	1.00	15.16	-24.63	2.23	-4.16	Vehicle	Vehicle	6.96	-79.24	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	17.72	29.53	7.81	13.02
		U_6 - L_6	60.32	12.21	-7.57	1.75	-0.47	0.90	1.00	10.98	-6.81	1.75	-0.47	Vehicle	Vehicle	102.21	-----	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	20.07	33.45	-----	-----
		U_7 - L_7	-41.78	-6.63	-0.92	-2.49	0.00	0.90	1.00	-0.83	-5.97	0.00	-2.49	Vehicle	Pedestrian	-----	-68.05	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	28.27	35.33
		U_8 - L_8	-189.01	-40.85	0.13	-8.38	0.00	0.90	1.00	0.11	-36.77	0.00	-8.38	Vehicle	Vehicle	-----	-325.38	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	-----	-----	15.75	-----	-----	36.00	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	5.57	9.29
		U_9 - L_9	-254.00	-56.93	1.59	-10.55	0.00	0.90	1.00	1.43	-51.24	0.00	-10.55	Vehicle	Vehicle	-----	-441.21	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	5.12	8.53
		U_{10} - L_{10}	-290.02	-67.03	3.58	-12.18	0.00	0.90	1.00	3.22	-60.32	0.00	-12.18	Vehicle	Vehicle	-----	-507.72	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.86	8.10
		U_{11} - L_{11}	-312.19	-65.27	10.32	-12.59	0.00	0.90	1.00	9.29	-58.74	0.00	-12.59	Vehicle	Vehicle	-----	-533.12	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.62	7.71
		U_{12} - L_{12}	-327.27	-64.90	15.51	-13.01	-0.93	0.90	1.00	13.96	-58.41	-0.93	-13.01	Vehicle	Vehicle	-----	-551.99	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.87	8.12
		U_{13} - L_{13}	-277.23	-51.80	21.22	-11.39	0.00	0.90	1.00	19.10	-46.62	0.00	-11.39	Vehicle	Vehicle	-----	-461.42	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	5.31	8.86
		U_{14} - L_{14}	-505.47	-34.33	-53.48	-9.95	-11.35	0.90	1.00	-30.90	-48.13	-9.95	-11.35	Vehicle	Vehicle	-----	-761.40	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	-----	-----	-----	6.81	11.35
		U_{15} - L_{15}	-232.92	13.44	-65.77	1.67	-11.17	0.90	1.00	12.10	-59.19	1.67	-11.17	Vehicle	Vehicle	-----	-431.05	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.63	7.72
		U_{16} - L_{16}	-260.09	9.59	-70.48	0.83	-12.63	0.90	1.00	8.63	-63.43	0.83	-12.63	Vehicle	Vehicle	-----	-475.54	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.84	6.40
		U_{17} - L_{17}	-228.20	8.82	-66.29	0.66	-11.76	0.90	1.00	7.93	-59.66	0.66	-11.76	Vehicle	Vehicle	-----	-425.93	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.97	6.62
		U_{18} - L_{18}	-209.23	4.10	-60.53	-0.02	-11.28	0.90	1.00	3.69	-54.47	-0.02	-11.28	Vehicle	Vehicle	-----	-390.02	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.05	6.76
		U_{19} - L_{19}	-166.51	5.26	-52.28	-0.07	-9.53	0.90	1.00	4.73	-47.05	-0.07	-9.53	Vehicle	Vehicle	-----	-318.41	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	4.40	7.33
Structure 2		U_{20} - L_{20}	-113.91	5.11	-30.88	-0.43	-7.50	0.90	1.00	4.60	-27.79	-0.43	-7.50	Vehicle	Vehicle	-----	-208.29	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	5.64	9.40
		U_{21} - L_{21}	-62.73	5.07	-21.10	0.00	-5.22	0.90	1.00	4.56	-18.99	0.00	-5.22	Vehicle	Vehicle	-----	-122.69	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	8.78	14.63
		U_{22} - L_{22}	-38.93	-8.54	-8.44	-2.04	-2.15	0.90	1.00	-7.60	-7.68	-2.04	-2.15	Vehicle	Vehicle	-----	-67.26	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	23.65	39.42
		U_{23} - L_{23}	-74.45	-29.27	3.33	-6.10	0.48	0.90	1.00	3.00	-26.34	0.48	-6.10	Vehicle	Vehicle	-----	-153.86	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.06	10.10
		U_{24} - L_{24}	-121.37	-51.91	4.77	-8.17	0.37	0.90	1.00	4.29	-46.72	0.37	-8.17	Vehicle	Vehicle	-----	-259.01	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	3.26	5.43
		U_{25} - L_{25}	-169.10	-59.64	7.85	-9.94	0.43	0.90	1.00	7.07	-53.68	0.43	-9.94	Vehicle	Vehicle	-----	-336.14	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	3.83	6.38
		U_{26} - L_{26}	-207.93	-62.37	7.15	-11.42	0.14	0.90	1.00	6.43	-56.14	0.14	-11.42	Vehicle	Vehicle	-----	-391.93	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.95	6.58
		U_{27} - L_{27}	-219.90	-59.83	12.71	-11.49	0.16	0.90	1.00	11.44	-53.85	0.16	-11.49	Vehicle	Vehicle	-----	-402.53	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.49	7.49
		U_{28} - L_{28}	-240.66	-56.72	20.33	-12.59	-0.25	0.90	1.00	18.29	-51.05	-0.25	-12.59	Vehicle	Vehicle	-----	-423.46	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	5.00	8.33
		U_{29} - L_{29}	-202.76	-49.79	28.18	-10.35	0.00	0.90	1.00	25.36	-44.81	0.00	-10.35	Vehicle	Vehicle	-----	-360.67	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	6.53	10.88
		U_{30} - L_{30}	-516.45	-21.81	-58.82	-8.21	-13.75	0.90	1.00	-19.63	-52.94	-8.21	-13.75	Pedestrian	Vehicle	-----	-786.08	11.02	51.81	40.7900	1709.73	131.71	25.6094	4.0330	57.15	29.89	-1316.46	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	-----	-----	-----	5.62

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL_{max} (kips)	LL_{min} (kips)	Pedestrian $Load_{MAX}$	Pedestrian $Load_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL_{MAX}	Lane Reduction and Impact LL_{MIN}	Impact & Pedestrian $Load_{MAX}$	Impact & Pedestrian $Load_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A_{deduct} (in^2) **	A_{gross} (in^2)	A_{net} (in^2)	$C_{Nominal}$ (kips)	Member Capicity in Compression: C_c	L (feet)	r_{min} (in)	KL/r_{min} ***	F_{crit} **** (ksi)	$C_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Diagonals	Structure 1	U_0 - L_1	87.61	-11.46	5.42	14.00	-4.60	0.90	1.00	4.87	-10.31	14.00	-4.60	Pedestrian	Pedestrian	144.55	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	**21.14**	**26.43**	-----	-----
		U_1 - L_2	23.84	-25.31	48.22	-4.72	9.20	0.90	1.00	43.39	-22.78	9.20	-4.72	Vehicle	Vehicle	125.02	-18.37	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**5.58**	**9.31**	**9.46**	**15.77**
		U_2 - L_3	-49.05	-20.80	-8.16	-4.33	3.33	0.90	1.00	-7.34	-18.72	3.33	-4.33	Vehicle	Vehicle	-----	-104.31	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**9.14**	**15.24**
		U_3 - L_4	-108.90	-18.82	-1.98	-4.21	-2.10	0.90	1.00	-1.78	-16.94	-2.10	-4.21	Pedestrian	Vehicle	-----	-178.26	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**8.06**	**13.43**
		U_4 - L_4	153.14	9.76	37.23	3.12	7.00	0.90	1.00	33.51	8.78	7.00	3.12	Vehicle	Pedestrian	271.69	-----	0.00	20.66	20.6644	681.93	131.71	11.6953	2.0011	52.60	30.37	-533.41	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**6.65**	**11.08**	-----	-----
		U_5 - L_5	186.37	7.92	40.63	2.79	10.66	0.90	1.00	36.57	7.13	10.66	2.79	Vehicle	Pedestrian	321.52	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**7.62**	**12.70**	-----	-----
		U_6 - L_6	177.53	-12.45	51.51	1.60	12.54	0.90	1.00	46.36	-11.21	12.54	1.60	Vehicle	Vehicle	331.23	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**6.12**	**10.21**	-----	-----
		U_7 - L_7	173.15	-0.89	35.01	0.41	13.46	0.90	1.00	31.51	-0.80	13.46	0.41	Pedestrian	Vehicle	298.17	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**8.50**	**10.62**	-----	-----
		U_8 - L_8	328.03	-3.65	78.02	-0.14	19.45	0.90	1.00	70.21	-3.29	19.45	-0.14	Vehicle	Vehicle	578.56	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.42**	**9.03**	-----	-----
		U_9 - L_{10}	339.64	-1.22	83.47	0.85	18.90	0.90	1.00	75.13	-1.10	18.90	0.85	Vehicle	Vehicle	604.30	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**4.97**	**8.29**	-----	-----
		U_{10} - L_{11}	313.15	3.55	77.08	1.69	16.46	0.90	1.00	69.37	3.19	16.46	1.69	Vehicle	Pedestrian	557.40	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**5.17**	**8.61**	-----	-----
		U_{11} - L_{12}	270.62	4.40	69.50	1.81	13.03	0.90	1.00	62.55	3.96	13.03	1.81	Vehicle	Pedestrian	487.32	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.86**	**8.10**	-----	-----
		U_{12} - L_{13}	194.11	-1.43	25.19	0.00	10.79	0.90	1.00	22.67	-1.29	10.79	0.00	Pedestrian	Vehicle	306.72	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**10.45**	**13.06**	-----	-----
		U_{13} - L_{14}	123.52	-1.22	23.55	0.00	5.97	0.90	1.00	21.20	-1.10	5.97	0.00	Vehicle	Vehicle	206.49	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.61**	**14.35**	-----	-----
		U_{14} - L_{15}	-16.31	-9.52	18.93	-2.35	1.47	0.90	1.00	17.04	-8.57	1.47	-2.35	Vehicle	Vehicle	15.71	-39.77	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**15.64**	**26.06**	**21.85**	**36.41**
		U_{15} - L_{15}	59.11	-8.87	28.34	-2.09	6.08	0.90	1.00	25.50	-7.98	6.08	-2.09	Vehicle	Vehicle	132.10	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.67**	**14.45**	-----	-----
		U_{17} - L_{16}	172.05	-9.66	46.32	-1.86	9.93	0.90	1.00	41.68	-8.70	9.93	-1.86	Vehicle	Vehicle	313.99	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**5.07**	**8.46**	-----	-----
		U_{18} - L_{17}	210.69	-8.22	47.57	-1.53	12.50	0.90	1.00	42.81	-7.39	12.50	-1.53	Vehicle	Vehicle	366.67	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**6.17**	**10.28**	-----	-----
		U_{19} - L_{18}	242.30	-6.56	50.04	-1.21	13.72	0.90	1.00	45.03	-5.91	13.72	-1.21	Vehicle	Vehicle	412.57	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**6.23**	**10.39**	-----	-----
		U_{20} - L_{19}	257.77	-5.39	45.56	-1.03	15.71	0.90	1.00	41.00	-4.85	15.71	-1.03	Pedestrian	Vehicle	427.26	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**6.38**	**7.98**	-----	-----
		U_0 - L_1	299.01	-7.66	8.67	-2.21	14.21	0.90	1.00	7.81	-6.89	14.21	-2.21	Pedestrian	Vehicle	424.48	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**17.39**	**21.74**	-----	-----
		U_1 - L_2	284.23	-21.52	75.30	-2.66	14.05	0.90	1.00	67.77	-19.37	14.05	-2.66	Vehicle	Vehicle	516.32	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.37**	**7.28**	-----	-----
		U_2 - L_3	221.45	-22.84	65.84	-2.85	11.83	0.90	1.00	59.26	-20.55	11.83	-2.85	Vehicle	Vehicle	416.27	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.35**	**7.24**	-----	-----
		U_3 - L_4	178.33	-25.79	63.44	-3.23	10.08	0.90	1.00	57.10	-23.21	10.08	-3.23	Vehicle	Vehicle	355.53	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**4.19**	**6.98**	-----	-----
		U_4 - L_5	53.52	-21.86	36.26	-2.87	5.38	0.90	1.00	32.64	-19.67	5.38	-2.87	Vehicle	Vehicle	140.28	-----	0.00	16.85	16.8486	556.00	131.71	15.3958	1.9682	70.40	28.29	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**6.88**	**11.47**	-----	-----
		U_5 - L_6	-16.50	-21.73	26.44	-2.92	2.23	0.90	1.00	23.80	-19.56	2.23	-2.92	Vehicle	Vehicle	30.11	-63.83	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**11.20**	**18.67**	**9.49**	**15.81**
		U_6 - L_7	-133.20	-16.56	-6.36	-2.50	-2.48	0.90	1.00	-5.72	-14.91	-2.48	-2.50	Pedestrian	Vehicle	-----	-205.46	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	**9.10**	**15.17**
		U_7 - L_7	208.77	2.11	41.92	0.00	8.33	0.90	1.00	37.73	1.90	8.33	0.00	Vehicle	Vehicle	353.14	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**6.27**	**10.46**	-----	-----
		U_8 - L_8	289.58	2.98	66.77	0.00	8.99	0.90	1.00	60.09	2.68	8.99	0.00	Vehicle	Vehicle	506.65	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**4.20**	**7.00**	-----	-----
		U_{10} - L_9	327.97	4.93	69.69	1.53	11.09	0.90	1.00	62.72	4.44	11.09	1.53	Vehicle	Pedestrian	562.26	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.30**	**7.17**	-----	-----
		U_{11} - L_{10}	349.27	-5.61	79.04	0.55	12.45	0.90	1.00	71.14	-5.05	12.45	0.55	Vehicle	Vehicle	608.18	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.18**	**6.96**	-----	-----
		U_{12} - L_{11}	358.20	-11.74	74.83	0.48	13.32	0.90	1.00	67.34	-10.57	13.32	0.48	Vehicle	Vehicle	611.56	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.33**	**7.22**	-----	-----
		U_{13} - L_{12}	307.76	-23.74	64.95	-0.24	12.26	0.90	1.00	58.46	-21.36	12.26	-0.24	Vehicle	Vehicle	526.74	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.82**	**8.04**	-----	-----
		U_{14} - L_{13}	260.25	-15.15	53.92	-1.50	11.73	0.90	1.00	48.53	-13.63	11.73	-1.50	Vehicle	Vehicle	443.48	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**6.40**	**10.66**	-----	-----
		U_{15} - L_{14}	208.41	-16.43	57.59	-2.52	11.04	0.90	1.00	51.83	-14.79	11.04	-2.52	Vehicle	Vehicle	383.24	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.12**	**8.53**	-----	-----
		U_{16} - L_{15}	243.53	-13.57	70.59	-1.48	11.54	0.90	1.00	63.53	-12.21	11.54	-1.48	Vehicle	Vehicle	454.24	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.84**	**6.41**	-----	-----
		U_{17} - L_{16}	255.83	-10.17	70.44	-0.85	11.67	0.90	1.00	63.40	-9.16	11.67	-0.85	Vehicle	Vehicle	469.93	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**4.30**	**7.17**	-----	-----
		U_{18} - L_{17}	235.25	-10.04	70.80	-0.75	10.45	0.90	1.00	63.72	-9.03	10.45	-0.75	Vehicle	Vehicle	443.89	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.91**	**6.52**	-----	-----
		U_{19} - L_{18}	212.06	-4.72	62.59	0.01	8.95	0.90	1.00	56.33	-4.25	8.95	0.01	Vehicle	Vehicle	397.73	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.67**	**7.79**	-----	-----
		U_{20} - L_{20}	168.18	-10.04	54.96	0.06	9.14	0.90	1.00	49.46	-9.03	9.14	0.06	Vehicle	Vehicle	325.81	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**5.28**	**8.80**	-----	-----
	Structure 2	U_{26} - L_{21}	97.21	-6.76	26.56	0.45	6.66	0.90	1.00	23.90	-6.08	6.66	0.45	Vehicle	Vehicle	178.16	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.30**	**13.83**	-----	-----
		U_{21} - L_{22}	30.55	-6.69	17.84	0.58	3.66	0.90	1.00	16.05	-6.02	3.66	0.58	Vehicle	Vehicle	74.50	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**14.84**	**24.74**	-----	-----
		U_{23} - L_{22}	49.81	-5.64	29.99	-0.72	5.11	0.90	1.00	26.99	-5.07	5.11	-0.72	Vehicle	Vehicle	123.24	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.40**	**14.00**	-----	-----
		U_{24} - L_{23}	115.09	-6.33	39.32	-0.72	8.00	0.90	1.00	35.39	-5.70	8.00	-0.72	Vehicle	Vehicle	226.29	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.30**	**8.83**	-----	-----
		U_{25} - L_{24}	179.20	-10.69	69.73	-0.73	10.10	0.90	1.00	62.76	-9.62	10.10	-0.73	Vehicle	Vehicle	368.94	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**4.05**	**6.76**	-----	-----
		U_{26} - L_{25}	220.95	-10.26	72.69	-0.57	11.89	0.90	1.00	65.42	-9.23	11.89	-0.57	Vehicle	Vehicle	428.97	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.94**	**6.57**	-----	-----
		U_{27} - L_{26}	234.79	-18.34	68.30	-0.35	11.44	0.90	1.00	61.47	-16.50	11.44	-0.35	Vehicle	Vehicle	438.40	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.06**	**6.77**	-----	-----
		U_{28} - L_{27}	253.01	-18.32	64.33	-0.28	12.25	0.90	1.00	57.89	-16.49	12.25	-0.28	Vehicle	Vehicle	454.35	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**4.74**	**7.90**	-----	-----
		U_{29} - L_{28}	215.83	-32.24	54.66	0.00	10.20	0.90	1.00	49.19	-29.02	10.20	0.00	Vehicle	Vehicle	387.17	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.30**	**8.84**	-----	-----
		U_{30} - L_{29}	179.92	-27.25	37.26	-0.93	8.89	0.90	1.00	33.53	-24.52	8.89	-0.93	Vehicle	Vehicle	306.54	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**8.42**	**14.04**	-----	-----
		U_{31} - L_{31}	294.37	-13.01	62.77	-1.65	12.88	0.90	1.00	56.49	-11.71	12.88	-1.65	Vehicle	Vehicle	505.07	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.13**	**8.55**	-----	-----
		U_{32} - L_{32}	342.78	-11.62	71.75	-0.55	13.71	0.90	1.00	64.57	-10.45	13.71	-0.55	Vehicle	Vehicle	585.52	-----	0.00	30.63	30.6305	1010.81	131.71	17.8750	2.8427	56.59	29.95	-779.87	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.04**	**6.73**	-----	-----
		U_{33} - L_{33}	363.31	-4.01	73.84	0.37	13.77	0.90	1.00	66.46	-3.61	13.77	0.37	Vehicle	Vehicle	616.29	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18

Moment (Start) - AI2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1998

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Min) End (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	U_0-L_1	-131.25	-22.60	1.01	-1.16	-2.28	-3.11	10.92	-12.57	-25.71	-33.53
	L_1-L_2	-54.49	-51.15	0.28	3.04	-1.45	-9.18	3.00	-32.88	-15.66	-99.18
	L_2-L_3	-39.79	-39.79	3.27	3.27	-4.47	-4.47	0.00	-44.72	-44.72	-44.72
	L_3-L_4	-52.26	-61.06	2.75	4.32	-5.82	-12.57	29.71	-66.63	-62.86	-135.72
	L_4-L_5	-28.29	-50.99	3.03	4.21	-5.82	-9.72	34.11	-58.73	-20.10	-90.27
	L_5-U_6	38.79	42.55	3.89	5.82	6.99	10.72	86.81	89.07	-133.31	21.93
	U_6-U_7	34.63	34.63	5.82	5.82	6.99	6.99	111.98	118.87	28.13	28.13
	U_7-L_8	-69.92	-603.38	2.10	5.86	-8.31	15.21	22.70	63.29	-89.73	164.05
	L_8-L_9	531.73	-129.19	17.57	-5.82	0.00	0.00	1102.30	-104.12	691.25	-167.95
	L_9-L_{10}	68.54	43.95	3.46	0.00	0.00	0.00	37.08	-6.63	0.00	0.00
	L_{10}-L_{11}	100.48	-176.70	5.10	-6.13	0.00	0.00	55.11	-66.24	0.00	0.00
	L_{11}-U_{12}	2.12	-160.13	2.46	-2.12	0.00	-3.66	37.26	-72.96	-83.23	-2.84
	U_{12}-L_{13}	-56.66	-218.08	2.73	1.00	-1.36	-5.88	29.61	-72.84	-14.73	-63.46
	L_{13}-L_{14}	-173.90	-344.96	1.82	1.82	-4.97	-24.25	19.66	-72.36	-64.44	-267.88
	L_{14}-U_{15}	-287.80	-237.44	2.40	1.38	-23.80	-7.53	25.87	14.93	-257.07	-81.27
	U_{15}-L_{16}	-196.20	-337.71	2.33	0.16	-6.26	-7.42	25.13	1.77	-67.58	-80.16
	L_{16}-L_{17}	-299.83	-154.75	1.02	0.22	-13.06	-3.66	29.53	-141.02	-89.63	-141.02
	L_{17}-U_{18}	-189.93	-29.96	0.76	-0.71	-7.45	-2.51	8.22	-7.67	-80.41	27.15
	U_{18}-L_{19}	-179.63	-29.55	0.89	-0.37	-7.75	-2.22	8.22	-7.67	-67.45	-59.98
	L_{19}-L_{20}	-249.78	-258.69	0.65	7.66	-18.13	-861	7.66	-18.13	-861	-161.62
	L_{20}-U_{21}	-28.62	-172.11	2.09	-3.20	-2.07	-5.42	22.54	-34.57	-22.40	-58.56
	U_{21}-L_{22}	-24.91	-195.34	1.14	-0.58	-1.76	-5.42	22.54	-34.57	-22.40	-58.56
	L_{22}-L_{23}	-53.03	-283.30	0.05	-4.36	-1.22	-8.48	0.00	-47.72	-13.14	-91.59
	L_{23}-U_{24}	-39.68	-287.90	0.07	-3.39	-1.22	-8.48	0.00	-47.72	-13.14	-91.59
	U_{24}-L_{25}	-360.46	-389.97	1.05	2.25	-7.67	-18.83	11.33	-24.41	-62.83	-203.34
	L_{25}-L_{26}	-403.42	-403.42	1.05	2.89	-7.67	-7.67	11.33	-24.41	-147.56	-127.05
	L_{26}-U_{27}	-349.63	-209.07	5.22	0.66	-13.49	-31.12	56.32	54.65	-145.70	-336.10
	U_{27}-L_{28}	-253.78	-280.71	4.01	5.58	-31.78	-12.15	43.26	60.31	-343.18	-131.20
	L_{28}-L_{29}	-237.02	-39.51	5.81	7.26	-18.60	-4.06	62.73	78.42	-200.87	-43.83
	L_{29}-U_{30}	-152.08	-152.08	5.81	5.81	-17.05	-17.05	77.37	77.37	-224.10	-224.10
	U_{30}-L_{31}	-116.69	170.75	6.17	4.93	-12.35	2.22	66.66	53.24	-133.37	23.99
	L_{31}-L_{32}	3.31	-50.84	0.12	0.12	-0.31	-0.31	0.00	0.00	0.00	0.00
	L_{32}-U_{33}	-211.04	121.68	5.17	4.28	-13.74	26.70	45.04	100.21	-148.36	288.36
	U_{33}-L_{34}	1028.71	-26.69	-82.62	-6.24	-0.78	2.24	440.82	-67.44	-8.37	24.22
	L_{34}-L_{35}	1.91	1.91	3.47	3.47	-0.43	-0.43	17.27	13.75	-1.49	-35.26
	L_{35}-U_{36}	21.39	75.29	10.24	-3.83	0.00	0.00	110.56	-41.39	0.00	0.00
	U_{36}-L_{37}	14.75	14.75	5.04	-1.55	0.00	0.00	75.75	-28.36	0.00	0.00
	L_{37}-L_{38}	156.55	-8.67	4.09	5.52	-0.91	-1.88	44.22	59.59	-9.84	-20.33
	L_{38}-U_{39}	48.55	11.41	4.94	4.94	-3.54	-6.40	53.37	52.25	-38.25	-69.65
	U_{39}-L_{40}	48.55	11.41	4.94	4.94	-3.54	-6.40	53.37	52.25	-38.25	-69.65
	L_{40}-U_{41}	-92.57	-65.85	4.49	5.49	-8.95	-23.81	48.45	59.24	-96.63	-257.11
	U_{41}-L_{42}	-59.44	-59.44	5.49	5.49	-8.95	-8.95	48.45	59.24	-96.63	-96.63
	L_{42}-U_{43}	-48.31	-31.52	4.42	4.11	-8.18	-2.33	47.70	44.42	-88.32	-25.11
	U_{43}-L_{44}	-10.77	-13.67	4.81	3.33	-8.11	2.34	51.95	35.91	-86.40	25.23
	L_{44}-U_{45}	57.22	-122.85	5.08	2.14	-12.05	6.78	54.65	23.13	-130.12	73.27
	U_{45}-L_{46}	86.89	86.89	2.26	2.26	-5.76	-5.76	38.17	38.17	-59.13	-59.13
	L_{46}-U_{47}	85.41	4.86	3.69	0.28	-5.26	-0.57	39.87	3.05	-56.76	-10.50
	U_{47}-L_{48}	-13.52	808.70	2.91	2.91	-2.91	21.55	21.55	24.74	-24.74	287.83
	L_{48}-U_{49}	821.42	-89.58	41.12	-9.09	0.00	0.00	444.05	-97.76	0.00	0.00
	U_{49}-L_{50}	25.52	37.16	1.55	1.55	-1.55	-1.55	16.78	24.65	-16.78	-24.65
	L_{50}-U_{51}	145.67	-52.49	7.71	-10.02	-0.80	-5.54	83.25	-108.16	-8.61	-54.46
	U_{51}-L_{52}	206.03	-3.58	5.93	-2.60	-6.54	0.00	60.05	64.97	-28.09	-65.23
	L_{52}-U_{53}	206.03	-3.58	5.93	-2.60	-6.54	0.00	60.05	64.97	-28.09	-65.23
	U_{53}-L_{54}	-75.13	-230.47	5.88	3.71	-4.07	-11.47	61.45	44.05	-93.47	-123.90
	L_{54}-U_{55}	-206.03	-3.58	5.93	-2.60	-6.54	0.00	53.82	64.97	-28.09	-65.23
	U_{55}-L_{56}	-84.17	-278.54	5.74	5.07	-28.82	-12.75	61.95	54.76	-311.30	-137.68
	L_{56}-U_{57}	-311.81	-274.89	4.57	5.78	-12.65	-12.65	54.76	61.95	-137.68	-311.30
	U_{57}-L_{58}	-274.89	-274.55	5.63	21.38	-10.75	0.00	39.79	5.72	-230.55	-116.08
	L_{58}-U_{59}	-296.96	-269.01	2.23	0.34	-14.20	-7.65	24.05	3.75	-153.40	-82.65
	U_{59}-L_{60}	-154.33	-154.33	1.49	1.49	-0.35	-9.65	16.11	-3.78	-104.17	-21.81
	L_{60}-U_{61}	-296.96	-269.01	2.23	0.34	-14.20	-7.65	24.05	3.75	-153.40	-82.65
	U_{61}-L_{62}	40.05	-167.81	2.51	-3.09	-1.99	-4.89	27.10	-33.37	-21.51	-52.35
	L_{62}-U_{63}	-10.43	-132.23	2.23	-7.15	-0.97	-2.52	24.11	-77.23	-10.43	-27.24
	U_{63}-L_{64}	-136.96	-136.96	1.34	-1.34	-0.31	-3.31	15.02	-15.02	-389.99	-58.12
	L_{64}-U_{65}	-140.08	-260.72	0.26	2.76	-8.36	-37.13	2.76	8.36	-37.13	-95.61
	U_{65}-L_{66}	-140.08	-260.72	0.26	2.76	-8.36	-37.13	2.76	8.36	-37.13	-95.61
	L_{66}-U_{67}	-187.91	-275.87	1.31	1.82	-7.97	-24.57	14.16	19.63	-86.03	-265.39
	U_{67}-L_{68}	-322.39	-140.32	1.91	0.61	-4.58	-7.97	10.70	30.92	-64.94	-37.89
	L_{68}-U_{69}	-162.57	-104.84	0.99	2.86	-6.91	-3.51	10.70	30.92	-64.94	-37.89
	U_{69}-L_{70}	-147.74	26.71	2.17	3.39	-11.92	-9.56	23.38	36.61	-128.78	-5.99
	L_{70}-U_{71}	-162.57	-104.84	0.99	2.86	-6.91	-3.51	10.70	30.92	-64.94	-37.89
	U_{71}-L_{72}	10.81	46.01	3.10	1.72	-5.45	1.94	33.45	18.55	-58.90	21.00
	L_{72}-U_{73}	-13.39	-13.39	1.72	1.72	-1.72	-1.72	13.39	13.39	-21.00	-21.00
	U_{73}-L_{74}	426.14	9.08	19.87	-5.13	0.00	0.00	214.64	-55.30	0.00	0.00
	L_{74}-U_{75}	426.14	9.08	19.87	-5.13	0.00	0.00	214.64	-55.30	0.00	0.00
	U_{75}-L_{76}	128.06	64.05	5.94	1.76	-9.02	-1.36	64.18	-16.96	-0.16	-14.72
	L_{76}-U_{77}	70.11	43.65	4.50	3.27	-3.47	-13.13	48.55	35.32	-37.44	-141.79
	U_{77}-L_{78}	-52.08	-52.08	2.66	2.66	-3.63	-9.28	28.77	-39.25	-101.25	117.75
Structure 2	U_0-L_1	-131.25	-22.60	1.01	-1.16	-2.28	-3.11	10.92	-12.57	-25.71	-33.53
	L_1-L_2	-54.49	-51.15	0.28	3.04	-1.45	-9.18	3.00	-32.88	-15.66	-99.18
	L_2-L_3	-39.79	-39.79	3.27	3.27	-4.47	-4.47	0.00	-44.72	-44.72	-44.72
	L_3-L_4	-52.26	-61.06	2.75	4.32	-5.82	-12.57	29.71	-66.63	-62.86	-135.72
	L_4-L_5	-28.29	-50.99	3.03	4.21	-5.82	-9.72	34.11	-58.73	-20.10	-90.27
	L_5-U_6	38.79	42.55	3.89	5.82	6.99	10.72	86.81	89.07	-133.31	21.93
	U_6-U_7	34.63	34.63	5.82	5.82	6.99	6.99	111.98	118.87	28.13	28.13
	U_7-L_8	-69.92	-603.38	2.10	5.86	-8.31	15.21	22.70	63.29	-89.73	164.05
	L_8-L_9	531.73	-129.19	17.57	-5.82	0.00	0.00	1102.30	-104.12	691.25	-167.95
	L_9-L_{10}	68.54	43.95	3.46	0.00	0.00	0.00	37.08	-6.63	0.00	0.00
	L_{10}-L_{11}	100.48	-176.70	5.10	-6.13	0.00	0.00	55.11	-66.24	0.00	0.00
	L_{11}-U_{12}	2.12	-160.13	2.46	-2.12	0.00	-3.66	37.26	-72.96	-83.23	-2.84
	U_{12}-L_{13}	-56.66	-218.08	2.73	1.00	-1.36	-5.88	29.61	-72.84	-14.73	-63.46
	L_{13}-L_{14}	-173.90	-344.96	1.82	1.82	-4.97	-24.25	19.66	-72.36	-64.44	-267.88
	L_{14}-U_{15}	-287.80	-237.44	2.40	1.38	-23.80	-7.53	25.87	14.93	-257.07	-81.27
	U_{15}-L_{16}	-196.20	-337.71	2.33	0.16	-6.26	-7.42	25.13	1.77	-67.58	-80.16
	L_{16}-L_{17}	-299.83	-154.75	1.02	0.22	-13.06	-3.66	29.53	-141.02	-89.63	-141.02
	L_{17}-U_{18}	-189.93	-29.96	0.76	-0.71	-7.45	-2.51	8.22	-7.67	-80.41	27.15
	U_{18}-L_{19}	-179.63	-29.55	0.89	-0.37	-7.75	-2.22	8.22	-7.67	-67.45	-59.98
	L_{19}-L_{20}	-249.78	-258.69	0.65	7.66	-18.13	-861	7.66	-18.13	-861	-161.62
	L_{20}-U_{21}	-28.62	-172.11	2.09	-3.20	-2.07	-5.42	22.54	-34.57	-22.40	-58.56
	U_{21}-L_{22}	-24.91	-195.34	1.14	-0.58	-1.76	-5.42	22.54	-34.57	-22.40	-58.56
	L_{22}-L_{23}	-53.03	-283.30	0.05	-4.36	-1.22	-8.48	0.00	-47.72	-13.14	-91.59
	L_{23}-U_{24}	-39.68	-287.90	0.07	-3.39	-1.22	-8.48	0.00	-47.72	-13.14	-91.59
	U_{24}-L_{25}	-360.46	-389.97	1.05	2.25	-7.67	-18.83	11.33	-24.41	-62.83	-203.34
	L_{25}-L_{26}	-403.42	-403.42	1.05	2.89	-7.67	-7.67	11.33	-24.41	-147.56	-127.05
	L_{26}-U_{27}	-349.63	-209.07	5.22	0.66	-13.49	-31.12	56.32	54.65	-145.70	-336.10
	U_{27}-L_{28}	-253.78	-280.71	4.01	5.58	-31.78	-12.15	43.26	60.31	-343.18	-131.20
	L_{28}-L_{29}	-237.02	-39.51	5.81	7.26	-18.60	-4.06	62.73	78.42	-200.87	-43.83
	L_{29}-U_{30}	-152.08	-152.08	5.81	5.81	-17.05	-17.05	77.37	77.37	-224.10	-224.10
	U_{30}-L_{31}	-116.69	170.75	6.17	4.93	-12.35	2.22	66.66	53.24	-133.37	23.99
	L_{31}-L_{32}	3.31	-50.84	0.12	0.12	-0.31	-0.31	0.00	0.00	0.00	0.00
	L_{32}-U_{33}	-211.04	121.68	5.17	4.28	-13.74	26.70	45.04	100.21	-148.36	288.36
	U_{33}-L_{34}	1028.71	-26.69	-82.62	-6.24	-0.78	2.24	440.82	-67.44	-8.37	24.22
	L_{34}-L_{35}	1.91	1.91	3.47	3.47	-0.43	-0.43	17.27	13.75	-1.49	-35.26
	L_{35}-U_{36}	21.39	75.29	10.24	-3.83	0.00	0.00	110.56	-41.39	0.00	0.00
	U_{36}-L_{37}	14.75	14.75	5.04	-1.55	0.00	0.00	75.75	-28.36	0.00	0.00
	L_{37}-L_{38}	156.55	-8.67	4.09	5.52	-0.91	-1.88	44.22	59.59	-9.84	-20.33
	L_{38}-U_{39}	48.55	11.41	4.94	4.94	-3.54	-6.40	53.37	52.25	-38.25	-69.65
	U_{39}-L_{40}	48.55	11.41	4.94	4.94	-3.54	-6.40	53.37	52.25	-38.25	-69.65
	L_{40}-U_{41}	-92.57	-65.85	4.49	5.49	-8.95	-23.81	48.45	59.24	-96.63	-257.11
	U_{41}-L_{42}	-59.44	-59.44	5.49	5.49	-8.95	-8.95	48.45	59.24	-96.63	-96.63
	L_{42}-U_{43}	-48.31	-31.52	4.42	4.11	-8.18	-2.33	47.70	44.42	-88.32	-25.11
	U_{43}-L_{44}	-10.77	-13.67	4.81	3.33	-8.11	2.34	51.95	35.91	-86.40	25.23
	L_{44}-U_{45}	57.22	-122.85	5.08	2.14	-12.05	6.78	54.65	23.13	-130.12	73.27
	U_{45}-L_{46}	86.89	86.89	2.26	2.26	-5.76	-5.76	38.17	38.17	-59.13	-59.13
	L_{46}-U_{47}	85.41	4.86	3.69	0.28	-5.26	-0.57	39.87	3.05	-56.76	-10.50
	U_{47}-L_{48}	-13.52	808.70	2.91	2.91	-2.91	21.55	21.55	24.74	-24.74	287.83
	L_{48}-U_{49}	821.42	-89.58	41.12	-9.09	0.00	0.00	444.05	-97.76	0.00	0.00
	U_{49}-L_{50}	25.52	37.16	1.55	1.55	-1.55	-1.55	16.78	24.65	-16.78	-24.65
	L_{50}-U_{51}	145.67	-52.49	7.71	-10.02	-0.80	-5.54	83.25	-108.16	-8.61	-54.46
	U_{51}-L_{52}	206.03	-3.58	5.93	-2.60	-6.54	0.00	60.05	64.97	-28.09	-65.23
	L_{52}-U_{53}	206.03	-3.58	5.93	-2.60	-6.54	0.00	60.05	64.97	-28.09	-65.23
	U_{53}-L_{54}	-75.13	-230.47	5.88	3.71	-4.07	-11.47	61.45	44.05	-93.47	-123.90
	L_{54}-U_{55}	-206.03	-3.58	5.93	-2.60	-6.54	0.00	53.82	64.97	-28.09	-65.23
	U_{55}-L_{56}	-84.17	-278.54	5.74	5.07	-28.82	-12.75	61.95	54.76	-311.30	-137.68
	L_{56}-U_{57}	-311.81	-274.89	4.57	5.78	-12.65	-12.65	54.76	61.95	-137.68	-311.30
	U_{57}-L_{58}	-274.89	-274.55	5.63	21.38	-10.75	0.00	39.79	5.72	-230.55	-116.08
	L_{58}-U_{59}	-296.96	-269.01	2.23	0.34	-14.20	-7.65	24.05	3.75	-153.40	-82.65
	U_{59}-L_{60}	-154.33	-154.33	1.49	1.49	-0.35	-9.65	16.11	-3.78	-104.17	-21.81
	L_{60}-U_{61}	-296.96	-269.01	2.23	0.34	-14.20	-7.65	24.05	3.75	-153.40	-82.65
	U_{61}-L_{62}	40.05	-167.81	2.51	-3.09	-1.99	-4.89	27.10	-33.37	-21.51	-52.35
	L_{62}-U_{63}	-10.43	-132.23	2.23	-7.15	-0.97	-2.52	24.11	-77.23	-10.43	-27.24
	U_{63}-L_{64}	-136.96	-136.96	1.34	-1.34	-0.31	-3.31	15.02	-15.02	-389.99	-58.12
	L_{64}-U_{65}	-140.08	-260.72	0.26	2.76	-8.36	-37.13	2.76	8.36	-37.13	-95.61
	U_{65}-L_{66}	-140.08	-260.72	0.26	2.76	-8.36	-37.13	2.76	8.36	-37.13	-95.61
	L_{66}-U_{67}	-187.91	-275.87	1.31	1.82	-7.97	-24.57	14.16	19.63	-86.03	-265.39
	U_{67}-L_{68}	-322.39	-140.32	1.91	0.61	-4.58	-7.97	10.70	30.92	-64.94	-37.89
	L_{68}-U_{69}	-162.57	-104.84	0.99	2.86	-6.91	-3.51	10.70	30.92	-64.94	-37.89
	U_{69}-L_{70}	-147.74	26.71	2.17	3.39	-11.92	-9.56	23.38	36.61	-128.78	-5.99
	L_{70}-U_{71}	-162.57	-104.84	0.99	2.86	-6.91	-3.51	10.70	30.92	-64.94	-37.89
	U_{71}-L_{72}	10.81	46.01	3.10	1.72	-5.45	1.94	33.45	18.55	-58.90	21.00
	L_{72}-U_{73}	-13.39	-13.39	1.72	1.72	-1.72	-1.72	13.39	13.39	-21.00	-21.00
	U_{73}-L_{74}	426.14	9.08	19.87	-5.13	0.00	0.00	214.64	-55.30	0.00	0.00
	L_{74}-U_{75}	426.14	9.08	19.87	-5.13	0.00	0.00	214.64	-55.30	0.00	0.00
	U_{75}-L_{76}	128.06	64.05	5.94	1.76	-9.02	-1.36	64.18	-16.96	-0.16	-14.72
	L_{76}-U_{77}	70.11	43.65	4.50	3.27	-3.47	-13.13	48.55	35.32	-37.44	-141.79
	U_{77}-L_{78}	-52.08	-52.08	2.66	2.66	-3.63	-9.28	28.77	-39.25	-101.25	117.75
Structure 3	U_0-L_1	-131.25	-22.60	1.01	-1.16	-2.28	-3.11	10.92	-12.57	-25.71	-33.53
	L_1-L_2	-54.49	-51.15	0.28	3.04	-1.45	-9.18	3.00	-32.88	-15.66	-99.18
	L_2-L_3	-39.79	-39.79	3.27	3.27	-4.47	-4.47	0.00	-44.72	-44.72	-44.72
	L_3-L_4	-52.26	-61.06	2.75	4.32	-5.82	-12.57	29.71	-66.63	-62.86	-135.72
	L_4-L_5	-28.29	-50.99	3.03	4.21	-5.82	-9.72	34.11	-58.73	-20.10	-90.27
	L_5-U_6	38.79	42.55	3.89	5.82	6.99	10.72	86.81	89.07	-133.31	21.93
	U_6-U_7	34.63	34.63	5.82	5.82	6.99	6.99	111.98	118.87	28.13	28.13
	U_7-L_8	-69.92	-603.38	2.10	5.86	-8.31	15.21	22.70	63.29	-89.73	164.05
	L_8-L_9	531.73	-129.19	17.57	-5.82	0.00	0.00	1102.30	-104.12	691.25	-167.95
	L_9-L_{10}	68.54	43.95	3.46	0.00	0.00	0.00	37.08	-6.63	0.00	0.00
	L_{10}-L_{11}	100.48	-176.70	5.10	-6.13	0.00	0.00	55.11	-66.24	0.00	0.00
	L_{11}-U_{12}	2.12	-160.13	2.46	-2.12	0.00	-3.66	37.26	-72.96	-83.23	-2.84
	U_{12}-L_{13}	-56.66	-218.08	2.73	1.00	-1.36	-5.88	29.61	-72.84	-14.73	-63.46
	L_{13}-L_{14}	-173.90	-344.96	1.82	1.82	-4.97	-24.25	19.66	-72.36	-64.44	-267.88
	L_{14}-U_{15}	-287.80	-237.44	2.40	1.38	-23.80	-7.53	25.87	14.93	-257.07	-81.27
	U_{15}-L_{16}	-196.20	-337.71	2.33	0.16	-6.26	-7.42	25.13	1.77	-67.58	-80.16
	L_{16}-L_{17}	-299.83	-154.75	1.02	0.22	-13.06	-3.66	29.53	-141.02	-89.63	-141.02
	L_{17}-U_{18}	-189.93	-29.96	0.76	-0.71	-7.45	-2.51	8.22	-7.67	-80.41	27.15
	U_{18}-L_{19}	-179.63	-29.55	0.89	-0.37	-7.75	-2.22	8.22	-7.67	-67.45	-59.98
	L_{19}-L_{20}	-249.78	-258.69	0.65	7.66	-18.13	-861	7.66	-18.13	-861	-161.62
	L_{20}-U_{21}	-28.62	-172.11	2.09	-3.20	-2.07	-5.42	22.54	-34.57	-22.40	-58.56
	U_{21}-L_{22}	-24.91	-195.34	1.14	-0.58	-1.76	-5.42	22.54	-34.57	-22.40	-58.56
	L_{22}-L_{23}	-53.03	-283.30	0.05	-4.36	-1.22	-8.48	0.00	-47.72	-13.14	-91.59
	L_{23}-U_{24}	-39.68	-287.90	0.07	-3.39	-1.22	-8.48	0.00	-47.72	-13.14	-91.59
	U_{24}-L_{25}	-360.46	-389.97	1.05	2.25	-7.67	-18.83	11.33	-24.41	-62.83	-203.34
	L_{25}-L_{26}	-403.42	-403.42	1.05	2.89	-7.67	-7.67	11.33	-24.41	-147.56	-127.05
	L_{26}-U_{27}	-349.63	-209.07	5.22	0.66	-13.49	-31.12	56.32	54.65	-145.70	-336.10
	U_{27}-L_{28}	-253.78	-280.71	4.01	5.58	-31.78	-12.15	43.26	60.31	-343.18	-131.20
	L_{28}-L_{29}	-237.02	-39.51	5.81	7.26	-18.60	-4.06	62.73	78.42	-200.87	-43.83
	L_{29}-U_{30}	-152.08	-152.08	5.81	5.81	-17.05	-17.05	77.37	77.37	-224.10	-224.10
	U_{30}-L_{31}	-116.69	170.75	6.17	4.93	-12.35	2.22	66.66	53.24	-133.37	23.99
	L_{31}-L_{32}	3.31	-50.84	0.12	0.12	-0.31	-0.31	0.00	0.00	0.00	0.00
	L_{32}-U_{33}	-211.04	121.68	5.17	4.28	-13.74	26.70	45.04	100.21	-148.36	288.36
	U_{33}-L_{34}	1028.71	-26.69	-82.62	-6.24	-0.78	2.24	440.82	-67.44	-8.37	24.22
	L_{34}-L_{35}	1.91	1.91	3.47	3.47	-0.43	-0.43	17.27	13.75	-1.49	-35.26
	L_{35}-U_{36}	21.39	75.29	10.24	-3.83	0.00	0.00	110.56	-41.39	0.00	0.00
	U_{36}-L_{37}

Moment (Start) - AI2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: **HS20 Lane**
Condition: **As Inspected**

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
Condition for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

M_y Information

| Location | Member | ZZ Axis Moments from STAAD: Dead Load (k-in) | Dead Load (k-ft) | Live Load (k-in) | Live Load (k-ft) | Pedestrian Load (k-in) | Pedestrian Load (k-ft) | Lane Reduction & Impact Live Load Start-(k-in) | Lane Reduction & Impact Live Load End-(k-in) | Impact Pedestrian Load Max Start-(k-in) | Impact Pedestrian Load Max End-(k-in) | Max. Neg. Mom. Start (k-in) | Max. Neg. Mom. End (k-in) | S_{top} (in^3) | S_{bot} (in^3) | Z_z (in^3) | I_z (in^4) | Shape Factor | M_p (k-in) | Formula 1.8 Term * F'c/S_{top} | M_z (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor C_{mx} | C_{mx} | YY Axis Moments from STAAD: Dead Load (k-in) | Dead Load (k-ft) | Live Load (k-in) | Live Load (k-ft) | Pedestrian Load (k-in) | Pedestrian Load (k-ft) | Lane Reduction & Impact Live Load Max-(k-in) | Lane Reduction & Impact Live Load Min-(k-in) | Impact Pedestrian Load Max Start-(k-in) | Impact Pedestrian Load Max End-(k-in) | Max. Neg. Mom. Start (k-in) | Max. Neg. Mom. End (k-in) | S_{top} (in^3) | S_{bot} (in^3) | Z_y (in^3) | I_{yy} (in^4) | Shape Factor | M_p (k-in) | P_{crit} (kip) | Formula 1.8 Term * F'c/M_{cr} | M_{cr} (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor C_{mx} | C_{mx} | Axial Compression | Moment Compression | Total | Pass | Axial Compression | Moment Compression | Total | Pass | Axial Compression | Moment Compression | Total | Pass |
|---|---|---|---

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans:
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information — ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Min) Start (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)	Max. Neg. Mom. Start (k-ft)	Max. Neg. Mom. End (k-ft)	S_{top} (in^3)	S_{bot} (in^3)	Z_z (in^3)	I_z (in^4)	I_{xx} (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F_y/S_{bot}	M_r (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor $C_{m(x)}$	Equivalent Mom. Factor $C_{m(y)}$
Structure 1	U_0–L_1	-55.75	82.39	0.76	-0.98	-2.69	3.20					0.00	0.00	-54.59	84.11	-130.51	181.99	13.2	13.18	15.42	20.35	2	618.4	1.54	672	1.5	652.4	-0.745	0.30	0.30
	U_1–L_1	-14.37	23.26	0.98	-0.99	-2.49	2.64					0.00	0.00	4.30	6.97	-76.88	92.03	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.835	0.27	0.27
	U_1–L_2	36.81	-39.20	1.03	-1.26	-1.77	2.00					0.00	0.00	29.92	-38.53	-40.69	53.01	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.904	0.22	0.22
	U_2–L_2	49.94	-49.31	1.52	-1.80	-1.05	1.19					0.00	0.00	71.89	-75.34	6.49	0.99	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.904	0.22	0.22
	U_2–L_3	57.83	-70.07	3.59	-3.81	0.00	0.00					0.00	0.00	-107.56	107.56	-52.18	75.18	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.998	0.20	0.20
	U_3–L_3	57.83	-70.07	3.59	-3.81	0.00	0.00					0.00	0.00	159.12	-180.12	75.18	-91.09	19.4	19.37	19.31	29.87	3	907.0	1.54	986	1.5	958.8	-0.883	0.25	0.25
	U_3–L_4	49.94	-49.31	1.52	-1.80	-1.05	1.19					0.00	0.00	71.89	-75.34	6.49	0.99	19.4	19.37	19.31	29.87	3	907.0	1.54	986	1.5	958.8	-0.883	0.25	0.25
	U_4–L_4	36.81	-39.20	1.03	-1.26	-1.77	2.00					0.00	0.00	29.92	-38.53	-40.69	53.01	19.4	19.37	19.31	29.87	3	907.0	1.54	986	1.5	958.8	-0.895	0.24	0.24
	U_4–L_5	57.83	-70.07	3.59	-3.81	0.00	0.00					0.00	0.00	159.12	-180.12	75.18	-91.09	19.4	19.37	19.31	29.87	3	907.0	1.54	986	1.5	958.8	-0.883	0.25	0.25
	U_5–L_5	57.83	-70.07	3.59	-3.81	0.00	0.00					0.00	0.00	38.74	-41.09	0.00	0.00	19.4	19.37	19.31	29.87	3	907.0	1.54	986	1.5	958.8	-0.883	0.25	0.25
	U_5–L_6	49.94	-49.31	1.52	-1.80	-1.05	1.19					0.00	0.00	35.36	-37.95	-8.80	2.01	19.4	19.37	19.31	29.87	3	907.0	1.54	986	1.5	958.8	-0.895	0.24	0.24
	U_6–L_6	102.14	-112.44	4.61	-4.77	-0.14	0.11					0.00	0.00	48.75	-51.55	-1.49	1.18	0.00	0.00	0.00	0.00	0	238.41	-257.86	129.55	-143.63	16.2	16.18	18.36	27.38
	U_6–L_7	-10.55	7.04	4.91	-5.88	-3.76	4.50					0.00	0.00	101.15	-128.37	-102.10	114.36	107.1	107.13	107.11	162.71	26	2056.9	1.52	5369	1.5	5302.9	-0.786	0.26	0.26
	U_7–L_7	-14.63	19.25	4.91	-5.88	-3.76	4.50					0.00	0.00	-181.76	210.77	-294.01	336.05	31.4	32.44	32.44	52.07	14	1356.4	1.60	1718	1.5	1593.3	-0.873	0.25	0.25
	U_7–L_8	-101.27	95.46	0.14	-0.32	-3.55	3.35					0.00	0.00	-128.29	116.57	-214.70	202.40	32.8	32.76	33.44	54.32	14	1236.0	1.66	1793	1.5	1621.6	-0.943	0.22	0.22
	U_8–L_8	-111.05	100.91	0.00	0.00	-3.82	3.60					0.00	0.00	-144.36	202.98	-245.54	322.44	42.4	42.74	42.74	69.36	8	1389.6	1.53	2155	1.5	2115.6	-0.793	0.28	0.28
	U_8–L_9	-96.41	93.86	0.00	0.00	-3.60	3.76					0.00	0.00	-125.33	122.02	-229.55	210.07	21.1	21.09	21.09	36.48	10	1137.6	1.68	1770	1.5	1744.0	-0.998	0.20	0.20
	U_9–L_9	-60.90	75.93	0.00	0.00	-3.72	3.91					0.00	0.00	-79.17	98.71	-166.22	190.29	17.2	17.24	17.24	26.54	2	824.7	1.54	876	1.5	853.4	-0.873	0.25	0.25
	U_9–L_{10}	-33.53	39.66	0.00	0.00	-3.72	3.91					0.00	0.00	-44.11	51.55	-71.02	84.77	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.904	0.22	0.22
	U_{10}–L_{10}	8.32	-15.88	2.56	-2.68	-0.74	0.81					0.00	0.00	27.69	-28.95	-7.96	8.69	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.849	0.26	0.26
	U_{10}–L_{11}	47.73	-50.39	2.56	-2.68	-0.73	0.72					0.00	0.00	128.95	-136.57	-44.99	48.59	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.998	0.20	0.20
	U_{11}–L_{11}	61.54	-72.81	3.27	-3.42	-0.55	0.56					0.00	0.00	35.26	-36.94	-5.95	6.02	0.00	0.00	0.00	0.00	0	156.40	-174.68	67.11	-81.62	19.4	19.37	19.37	29.87
	U_{11}–L_{12}	133.07	-138.05	5.24	-5.48	-0.76	0.77					0.00	0.00	66.57	-67.21	-8.23	8.27	0.00	0.00	0.00	0.00	0	310.47	-322.24	195.52	-181.54	19.4	19.37	19.37	29.87
	U_{12}–L_{12}	158.01	-154.56	6.52	-6.23	-0.78	0.70					0.00	0.00	70.39	-67.24	-8.42	7.57	0.00	0.00	0.00	0.00	0	357.93	-346.62	187.18	-184.52	42.7	42.74	42.74	69.30
	U_{12}–L_{13}	131.43	-213.61	2.94	-5.27	-0.34	0.57					0.00	0.00	31.76	-56.88	-3.64	6.13	0.00	0.00	0.00	0.00	0	239.71	-401.19	163.00	-264.66	42.0	41.97	42.74	63.05
	U_{13}–L_{13}	-144.09	187.26	0.00	0.00	-4.64	5.00					0.00	0.00	-168.60	218.73	-339.76	439.71	42.4	42.74	42.74	69.30	8	1389.6	1.53	2155	1.5	2115.6	-0.793	0.28	0.28
	U_{13}–L_{14}	-122.98	131.23	0.98	-1.02	-4.76	5.10					0.00	0.00	-136.82	146.69	-211.13	289.85	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.835	0.23	0.23
	U_{14}–L_{15}	-101.82	111.77	0.54	-0.59	-4.21	4.19					0.00	0.00	-124.56	132.84	-184.55	254.79	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.904	0.22	0.22
	U_{15}–L_{16}	-62.37	68.86	0.78	-0.80	-2.79	2.97					0.00	0.00	-62.90	71.05	-146.36	159.24	21.5	21.54	21.54	33.27	3	987.9	1.54	1098	1.5	1066.2	-0.919	0.23	0.23
	U_{16}–L_{17}	-37.80	43.18	1.00	-1.00	-2.67	2.87					0.00	0.00	-38.06	32.96	-73.19	59.63	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.998	0.20	0.20
	U_{17}–L_{18}	-9.72	15.71	1.17	-1.22	-2.43	2.72					0.00	0.00	12.59	-13.12	-29.24	29.41	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.817	0.27	0.27
	U_{18}–L_{19}	14.83	-14.93	0.97	-1.10	-2.03	2.11					0.00	0.00	10.52	-11.87	-21.92	22.82	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.932	0.23	0.23
	U_{19}–L_{20}	39.68	-43.44	1.05	-1.20	-1.37	1.43					0.00	0.00	11.30	-13.19	0.00	0.00	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.998	0.20	0.20
	U_{20}–L_{21}	88.70	-97.90	4.00	-4.09	0.00	0.00					0.00	0.00	43.18	-44.18	0.00	0.00	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.998	0.20	0.20
	U_{21}–L_{22}	133.02	-133.03	5.39	-5.47	0.00	0.00					0.00	0.00	66.51	-66.51	0.00	0.00	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.998	0.20	0.20
	U_{22}–L_{23}	140.07	-146.97	5.60	-6.00	-0.03	0.10					0.00	0.00	60.48	-64.79	-0.31	1.07	0.00	0.00	0.00	0.00	0	313.13	-331.44	181.41	-188.75	43.0	43.01	42.96	68.66
	U_{23}–L_{24}	148.94	-153.41	5.62	-5.89	-0.18	0.25					0.00	0.00	60.69	-63.60	-1.97	3.02	0.00	0.00	0.00	0.00	0	325.10	-337.23	189.36	-192.88	43.0	43.01	42.96	68.66
	U_{24}–L_{25}	141.49	-146.45	5.62	-5.89	-0.18	0.25					0.00	0.00	54.81	-56.74	-2.07	2.96	0.00	0.00	0.00	0.00	0	325.10	-337.23	189.36	-192.88	43.0	43.01	42.96	68.66
	U_{25}–L_{26}	185.37	-182.48	7.03	-6.97	-0.60	0.43					0.00	0.00	75.90	-75.30	-6.46	4.63	0.00	0.00	0.00	0.00	0	405.43	-400.37	226.98	-227.18	39.2	39.17	39.11	63.33
	U_{26}–L_{27}	72.78	7.71	0.00	0.00	-1.96	2.31					0.00	0.00	80.08	-67.33	50.63	-50.63	0.00	0.00	0.00	0.00	0	112.72	-112.60	71.14	-71.12	39.2	39.17	39.11	63.33
	U_{27}–L_{28}	-128.23	129.95	1.16	-1.02	-6.41	6.32					0.00	0.00	12.48	-11.02	-69.21	68.20	0.00	0.00	0.00	0.00	0	139.65	145.06	316.65	316.70	39.2	39.17	39.11	63.33
	U_{28}–L_{29}	-83.92	83.27	1.21	-1.13	-4.21	4.19					0.00	0.00	9.87	-11.10	-49.66	48.66	0.00	0.00	0.00	0.00	0	96.24	98.72	218.13	218.15	39.2	39.17	39.11	63.33
	U_{29}–L_{30}	-125.93	122.62	1.01	-1.03	-7.56	7.46					0.00	0.00	9.87	-11.10	-91.66	90.66	0.00	0.00	0.00	0.00	0	142.32	135.35	340.64	333.69	42.7	42.74	42.74	69.30
	U_{30}–L_{31}	-109.68	106.90	0.68	-0.92	-5.97	6.55					0.00	0.00	7.38	-9.97	-84.52	82.77	0.00	0.00	0.00	0.00	0	126.60	119.97	-282.38	294.91	39.8	39.83	38.83	59.23
	U_{31}–L_{32}	-93.35	90.39	0.00	0.00	-5.27	5.78					0.00	0.00	6.12	-8.26	-72.20	70.85	0.00	0.00	0.00	0.00	0	112.72	106.87	-252.00	262.38	39.8	39.83	38.83	59.23
	U_{32}–L_{33}	-43.26	43.75	0.25	-0.30	-2.80	3.00					0.00	0.00	2.66	-3.25	-30.23	32.37	0.00	0.00	0.00	0.00	0	50.49	49.83	-121.74	127.00	17.2	17.24	17.24	26.54
	U_{33}–L_{34}	-29.76	34.29	0.51	-0.52	-1.92	1.99					0.00	0.00	3.49	-3.49	-21.54	20.69	0.00	0.00	0.00	0.00	0	50.49	49.83	-121.74	127.00	17.2	17.24	17.24	26.54
	U_{34}–L_{35}	-5.29	1.62	0.54	-0.61	-0.69	0.91					0.00	0.00	5.81	-6.53	-7.43	8.70	0.00	0.00	0.00	0.00	0	50.49	49.83	-121.74	127.00	17.2	17.24	17.24	26.54
	U_{35}–L_{36}	28.80	32.71	2.79	-3.05	-0.89	0.97					0.00	0.00	30.80	-33.25	-3.96	4.24	0.00	0.00	0.00	0.00	0	127.26	-138.60	51.94	-57.35	17.2	17.24	17.24	26.54
	U_{36}–L_{37}	46.56	-51.09	2.85	-3.08	-0.97	0.39					0.00	0.00	46.74	-46.38	-5.81	6.36	0.00	0.00	0.00	0.00	0	127.26	-138.60	91.94	-85.73	17.2	17.24	17.24	26.54
	U_{37}–L_{38}	98.15	-107.49	4.19	-4.29	-0.54	0.55					0.00	0.00	88.07	-87.32	-10.93	10.85	0.00	0.00	0.00	0.00	0	238.41	-257.86	129.55	-143.63	16.2	16.18	18.36	27.38
	U_{38}–L_{39}	98.15	-107.49	4.19	-4.29	-0.54	0.55					0.00	0.00	90.32	-89.21	-10.94	10.89	0.00	0.00	0.00	0.00	0	238.41	-257.86	129.55	-143.63	16.2	16.18	18.36	27.38
	U_{39}–L_{40}	108.55	-105.78	8.32	-8.41	-1.13	1.16					0.00	0.00	89.85	-90.78	-12.19	12.52	0.00	0.00	0.00	0.00	0	333.18	-334.19	112.10	-110.37	42.7	42.74	42.74	69.30
	U_{40}–L_{41}	108.55	-105.78	8.32	-8.41	-1.13	1.16					0.00	0.00	89.85	-90.78	-12.19	12.52	0.00	0.00	0.00	0.00	0	333.18	-334.19	112.10	-110.37	42.7	42.74	42.74	69.30
	U_{41}–L_{42}	114.59	-114.85	7.83	-7.67	-0.73	0.57					0.00	0.00	84.97	-82.84	-7.93	6.16	0.00	0.00	0.00	0.00	0	332.21	-328.78	131.79	-135.96	39.2	39.17	39.11	63.33
	U_{42}–L_{43}	114.59	-114.85	7.83	-7.67	-0.73	0.57					0.00	0.00	84.97	-82.84	-7.93	6.16	0.00	0.00	0.00	0.00	0	332.21	-328.78	131.79	-135.96	39.2	39.17	39.11	63.33
	U_{43}–L_{44}	72.78	-67.33	5.39	-5.47	0.00	0.00					0.00	0.00	80.08	-67.33	50.63	-50.63	0.00	0.00	0.00	0.00	0	112.72	-112.60	71.14	-71.12	39.2	39.17	39.11	63.33
	U_{44}–L_{45}	-122.25	119.98	0.90	-0.85	-6.25	6.23					0.00	0.00	9.67	-9.25	-67.45	67.33	0.00	0.00	0.00	0.00	0	137.98	136.03	-305.05	301.85	39.2	39.17	39.11	63.33
	U_{45}–L_{46}	-93.65	87.71	1.00	-1.00	-5.26	4.70					0.00	0.00	7.57	-10.81	-56.76	50.80	0.00	0.00	0.00	0.00	0	105.34	90.60	-244.73	224.10	43.2	43.24	43.16	70.66
	U_{46}–L_{47}	-47.04	47.04	0.64	-0.71	-2.64	2.64					0.00	0.00	2.47	-3.64	-41.22	41.22	0.00	0.00	0.00	0.00	0	64.80	64.80	-164.11	164.11	42.7	42.74	42.74	69.30
	U_{47}–L_{48}	-96.77	103.24	0.03	-0.17	-4.77	5.13					0.00	0.00	0.37	-1.85	-51.48	55.36	0.00	0.00	0.00	0.00	0	129.01	130.21	-237.35	254.16	43.0	43.01	42.96	68.66
	U_{48}–L_{49}	-70.52	72.62	0.00	0.00	-3.58	3.85					0.00	0.00	0.00	0.00	-47.41	47.41	0.00	0.00	0.00	0.00	0	143.66	143.66	-297.67	297.67	43.0	43.01	42.96	68.66
	U_{49}–L_{50}	-63.40	70.58	0.00	0.00	-4.25	4.39					0.00	0.00	0.00	0.00	-45.85	47.41	0.00	0.00	0.00	0.00	0	82.48	91.76	-181.92	194.48	20.8	20.80	20.67	34.64
	U_{50}–L_{51}	-32.67	38.68	0.00	0.00	-1.22	1.44					0.00	0.00	0.00	0.00	-13.20	15.57	0.00	0.00	0.00	0.00	0	42.47	50.28	-71.07	84.02	15.4	15.42	15.42	23.71
	U_{51}–L_{52}	-16.12	17.79	0.00	0.00	-0.60	0.71					0.00	0.00	0.00	0.00	-5.36	6.33	0.00	0.00	0.00	0.00	0	42.47	50.28	-71.07	84.02	15.4	15.42	15.42	23.71
	U_{52}–L_{53}	4.43	-6.37	2.18	-2.48	-1.25	1.30					0.00	0.00	0.00	0.00	-26.81	-13.51	14.01	0.00	0.00	0.00	0	95.74	-68.97	-23.52	19.46	15.4	15.42	15.42	23.71
	U_{53}–L_{54}	36.77	-38.90	3.19	-3.49	-0.95	0.96					0.00	0.00	0.00	0.00	-34.49	-19.24	19.96	0.00	0.00	0.00	0	141.05	-149.83	39.15	-43.29	21.5	21.54	21.54	33.27
	U_{54}–L_{55}	47.21	-50.58	3.41	-3.59	-0.95	0.96					0.00	0.00	36.77	-38.90	-10.26	10.37	0.00	0.00	0.00	0.00	0	141.05	-149.83	39.15	-43.29	21.5	21.54	21.54	33.27
	U_{55}–L_{56}	97.75	-97.45	7.03	-7.03	-1.35	1.35					0.00	0.00	85.52	-83.00	-10.26	10.04	0.00	0.00	0.00	0.00	0	309.69	-308.63	103.56	-115.31	46.5	46.71	46.71	71.43
	U_{56}–L_{57}	104.42	-111.67	7.09	-6.90	-1.36	1.26					0.00	0.00	76.69	-74.52	-14.67	13.78	0.00	0.00	0.00	0.00	0	309.69	-308.63	103.56	-115.31	46.5	46.71	46.71	71.43
	U_{57}–L_{58}	108.14	-102.78	3.05	-6.07	-0.68	1.12					0.00	0.00	32.98	-65.57	-7.37	12.04	0.00	0.00	0.00	0.00	0	212.05	-314.69	124.62	-146.54	46.7	46.71	46.71	71.43
	U_{58}–L_{59}	97.75	-97.45	7.03	-7.03	-1.35	1.35					0.00	0.00	85.52	-83.00	-10.26	10.04	0.00	0.00	0.00	0.00	0	309.69	-308.63	103.56	-115.31	46.5	46.71	46.71	71.43
	U_{59}–L_{60}	-123.31	121.35	0.63	-0.70	-6.32	6.32					0.00	0.00	9.65	-9.32	-68.37	67.33	0.00	0.00	0.00	0.00	0	139.65	145.06	316.65	316.70	39.2	39.17	39.11	63.33
	U_{60}–L_{61}	-109.30	107.29	0.52	-0.49	-5.49	5.49					0.00	0.00	5.65	-5.32	-59.30	57.48	0.00	0.00	0.00	0.00	0	129.85	140.93	-240.22	255.01	42.4	42.74	42.74	69.30
	U_{61}–L_{62}	-95.12	93.31	0.00	0.00	-4.77	4.77					0.00	0.00	4.91	-4.62	-51.57	49.95	0.00	0.00	0.00	0.00	0	112.72	106.87	-252.00	262.38	39.8	39.83	38.83	59.23
	U_{62}–L_{63}	-48.62	58.77	0.43	-0.44	-2.66	2.73					0.00	0.00	4.68	-4.73	-27.64	29.44	0.00	0.00	0.00	0.00	0	63.08	66.13	-120.93	140.19	19.4	19.37	19.37	29.87
	U_{63}–L_{64}	-16.12	17.79	0.00	0.00	-0.60	0.71					0.00	0.00	0.00	0.00	-5.36	6.33	0.00	0.00	0.00	0.00	0	42.47	50.28	-71.07	84.02	15.4	15.42	15.42	23.71
	U_{64}–L_{65}	-5.41	11.54	0.68	-0.73	-2.92	3.01					0.00	0.00	0.00	0.00	-7.53	-31.51	33.20	0.00	0.00	0.00	0	8.30	1.96	-79.31	86.94	15.4	15.42	15.42	23.71
	U_{65}–L_{66}	27.84	-30.65	0.86	-0.90	0.00	0.04					0.00	0.00	9.27	-9.67	-0.01	0.39	0.00	0.00	0.00	0.00	0	58.27	60.79	36.17	39.01	15.4	15.42	15.42	23.71
	U_{66}–L_{67}	37.80	-43.18	1.00	-1.00	2.67	-2.87					0.00	0.00	38.06	-32.96	73.19	-59.63	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.998	0.20	0.20
	U_{67}–L_{68}	62.37	-68.86	0.78	-0.80	2.79	-2.97					0.00	0.00	62.90	-71.05	146.36	-159.24	21.5	21.54	21.54	33.27	3	987.9	1.54	1098	1.5	1066.2	-0.919	0.23	0.23
	U_{68}–L_{69}	37.80	-43.18	1.00	-1.00	2.67	-2.87					0.00	0.00	38.06	-32.96	73.19	-59.63	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.998	0.20	0.20
	U_{69}–L_{70}	62.37	-68.86	0.78	-0.80	2.79	-2.97					0.00	0.00	62.90	-71.05	146.36	-159.24	21.5	21.54	21.54	33.27	3	987.9	1.54	1098	1.5	1066.2	-0.919	0.23	0.23
	U_{70}–L_{71}	37.80	-43.18	1.00	-1.00	2.67	-2.87					0.00	0.00	38.06	-32.96	73.19	-59.63	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.998	0.20	0.20
	U_{71}–L_{72}	9.72	-15.71	1.17	1.22	2.43	-2.72					0.00	0.00	12.59	-13.12	29.24	29.41	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.817	0.27	0.27
	U_{72}–L_{73}	14.83	-14.93	0.97	1.10	2.03	-2.11					0.00	0.00	10.52	-11.87	21.92	22.82	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.932	0.23	0.23
	U_{73}–L_{74}	39.68	-43.44	1.05	1.20	1.37	-1.43					0.00	0.00	11.30	-13.19	0.00	0.00	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.998	0.20	0.20
	U_{74}–L_{75}	88.70	-97.90	4.00	4.09	0.00	0.00					0.00	0.00	43.18	-44.18	0.00	0.00	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5

Moment (Start) - AI2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.80

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

| Location | Member | ZZ Axis Moments from STAAD | | |

Moment (Start) - AI2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1998

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

| Location | Member | ZZ Axis Moments from STAAD: Dead Load (k-in) | Dead Load End (k-in) | Live Load (Max) (k-in) | Live Load (Min) End (k-in) | Pedestrian Load (Max) (k-in) | Pedestrian Load (Min) (k-in) | Lane Reduction & Impact Live Load (Max) (k-in) | Lane Reduction & Impact Live Load (Min) End (k-in) | Impact Pedestrian Load Max (k-in) | Impact Pedestrian Load Min (k-in) | Max. Neg. Mom. Start (k-in) | Max. Neg. Mom. End (k-in) | S_{bb} (in^3) | S_{tb} (in^3) | S_{tb} (in^3) | Z_z (in^3) | I_{zz} (in^4) | Shape Factor f | M_z (k-in) | Formula 1.8 Term / F_y/S_xx | M_z k-in | ZZ Axis Moment Properties: Equivalent Mom. Factor a | $C_{m(a)}$ | $C_{m(b)}$ | YY Axis Moments from STAAD: Dead Load (k-in) | Live Load (Max) (k-in) | Live Load (Min) End (k-in) | Pedestrian Load (Max) (k-in) | Pedestrian Load (Min) (k-in) | Lane Reduction & Impact Live Load (Max) (k-in) | Lane Reduction & Impact Live Load (Min) End (k-in) | Impact Pedestrian Load Max (k-in) | Impact Pedestrian Load Min (k-in) | YY Axis Moment Properties: Max. Pos. Mom. Start (k-in) | Max. Pos. Mom. End (k-in) | Max. Neg. Mom. Start (k-in) | Max. Neg. Mom. End (k-in) | S_{bb} (in^3) | S_{tb} (in^3) | S_{tb} (in^3) | Z_y (in^3) | I_{yy} (in^4) | Shape Factor f | M_y (k-in) | r_{min} (in) | Formula 1.8 Term / F_y/S_xx | M_y k-in | Equivalent Mom. Factor a | $C_{m(a)}$ | $C_{m(b)}$ | Yield: Axial Portion | Yield: Moment Portion | Yield: Total | Pass | Tension: Axial Portion | Tension: Moment Portion | Tension: Total | Pass | Fracture: Axial Portion | Fracture: Moment Portion | Fracture: Total | Pass | Buckle: Axial Portion | Buckle: Moment Portion | Buckle: Total | Pass | Compression: Axial Portion | Compression: Moment Portion | Compression: Total | Pass |
|---|---|---|---

Moment (Start) - AI2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
Gusset Plates Evaluated for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

Location	Member	ZZ Axis Moments from STAAD: Dead Load Start-(k-ft)	End-(k-ft)	Live Load (Max) Start-(k-ft)	End-(k-ft)	Live Load (Min) Start-(k-ft)	End-(k-ft)	Pedestrian Load (Max) Start-(k-ft)	End-(k-ft)	Pedestrian Load (Min) Start-(k-ft)	End-(k-ft)	Lane Reduction & Impact Live Load Start-(k-ft)	End-(k-ft)	Lane Reduction & Impact Live Load Min Start-(k-ft)	End-(k-ft)	Impact Pedestrian Load Max Start-(k-ft)	End-(k-ft)	Impact Pedestrian Load Min Start-(k-ft)	End-(k-ft)	Max. Occ. Mom. Start-k-in	End-k-in	S_{top} (in^3)	S_b (in^3)	Z_z (in^3)	I (in^4)	$I_{t/n}$ (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F_y/S_top	M_n (k-in)	Equivalent Mem. Factor a	$C_{m/n}$	C_{min}	Total	Pass
Structure 1	L_0-L_1	-15.50	-73.38	2.73	-3.45	-0.50	0.56					24.59	-31.09	-6.12	8.78	0.00	0.00	0.00	0.00	33.12	-192.74	37.74	-76.36	83.6	83.58	74.65	100.97	2577	1026.3	1.21	3332	0.99000394	2705.4	-0.204	0.52	0.52	
	L_1-L_2	39.75	-88.06	0.00	0.00	-1.16	-4.08					0.00	0.00	-10.41	-36.70	0.00	0.00	0.00	0.00	51.68	-114.47	29.11	-154.00	83.6	83.58	67.49	100.97	2577	1026.3	1.21	3332	0.99000394	2705.4	-0.150	0.54	0.54	
	L_2-L_3	39.30	-42.24	1.26	-2.42	-5.32	-5.32					12.27	-21.58	-27.89	-47.87	-47.67	-47.67	0.00	0.00	-76.72	-6.18	83.6	83.58	91.00	125.40	3409	1372.0	1.26	4141	0.99991188	3294.8	-0.205	-158.27	99.9	99.93	84.14	
	L_3-L_4	-11.39	11.52	1.25	3.99	-4.33	-8.56					11.27	35.90	-38.97	-77.06	0.00	0.00	0.00	0.00	9.61	92.77	-99.24	-151.98	99.9	99.93	84.14	125.49	3409	1372.0	1.26	4141	0.99991188	3294.8	0.653	0.86	0.86	
	L_4-L_5	-49.18	208.14	3.02	3.21	-11.04	2.98					27.14	28.85	-117.34	-23.79	0.00	0.00	0.00	0.00	-5.15	323.18	-57.81	320.12	92.6	92.58	76.68	114.47	3286	1322.2	1.24	4089	0.99991065	3052.4	-0.073	0.59	0.59	
	L_5-L_6	-5.43	187.22	2.32	5.30	-4.61	-0.61					20.84	47.67	-40.59	-5.45	0.00	0.00	0.00	0.00	44.58	338.88	-88.51	223.77	104.6	104.58	95.61	136.37	4040	1678.1	1.31	4520	0.99992345	3448.5	0.132	0.65	0.65	
	L_6-L_7	41.36	78.74	2.69	-1.37	-4.07	-4.07					2.26	-13.52	-21.94	-37.31	-37.31	-37.31	0.00	0.00	81.98	2.36	92.6	92.58	79.91	114.47	3286	1322.2	1.24	4089	0.99991065	3052.4	0.684	0.87	0.87	
	L_7-L_8	-25.09	448.92	0.00	0.00	-1.40	-18.69					0.00	0.00	-12.36	-168.21	0.00	0.00	0.00	0.00	-32.62	583.39	-59.84	948.05	145.8	145.75	130.44	228.84	6500	2932.4	1.57	7552	0.99992911	4806.3	-0.063	0.57	0.57	
	L_8-L_9	-426.08	-36.00	17.11	-1.28	0.00	0.00					154.05	-11.53	0.00	0.00	0.00	0.00	0.00	0.00	187.57	-71.78	553.91	-66.81	145.8	145.75	130.74	228.84	6500	2932.4	1.57	7552	0.99992911	4806.4	-0.081	0.57	0.57	
	L_9-L_{10}	-150.12	-105.15	2.89	-3.06	-2.12	1.88					26.04	-27.50	-19.09	16.88	0.00	0.00	0.00	0.00	251.07	-224.11	153.79	-127.93	144.9	144.85	129.09	192.84	5210	2360.8	1.34	6364	0.99991494	4178.1	-0.051	0.24	0.24	
	L_{10}-L_{11}	-120.53	-116.03	6.04	-2.89	0.00	0.00					54.38	-26.02	0.00	0.00	0.00	0.00	0.00	0.00	274.51	-207.22	156.69	-150.84	92.6	92.58	83.65	114.47	3295	1304.9	1.24	3777	0.99991387	3052.5	-0.705	0.30	0.30	
	L_{11}-L_{12}	-39.16	-98.25	1.60	-4.30	0.00	0.00					12.42	-39.32	0.00	0.00	0.00	0.00	0.00	0.00	277.15	-342.42	256.77	-257.65	92.6	92.58	83.65	114.47	3295	1304.9	1.24	3777	0.99991387	3052.5	-0.859	0.30	0.30	
	L_{12}-L_{13}	-45.20	-121.29	1.99	0.82	-2.70	-3.63					17.93	8.32	-25.07	-32.66	0.00	0.00	0.00	0.00	-19.91	-139.66	-113.08	-228.44	130.1	130.08	121.10	170.72	3885	1793.2	1.31	5634	0.99992522	4288.6	0.495	0.80	0.80	
	L_{13}-L_{14}	96.42	-350.16	3.20	-16.53	-0.01	-13.54					28.64	-148.81	-4.61	-121.52	0.00	0.00	0.00	0.00	187.83	-784.12	115.36	-725.66	162.9	162.89	147.19	219.93	6087	2613.8	1.35	7258	0.99991006	5370.6	-0.240	0.50	0.50	
	L_{14}-L_{15}	19.62	-76.82	1.62	-3.14	0.00	0.00					6.26	-37.16	-1.39	-29.26	0.00	0.00	0.00	0.00	-427.99	-20.45	-376.15	-19.64	162.9	162.89	147.19	219.93	6087	2613.8	1.35	7258	0.99991006	5370.6	-0.240	0.50	0.50	
	L_{15}-L_{16}	-192.00	-318.69	0.71	0.26	-7.75	-8.24					6.38	2.36	-89.79	-74.15	0.00	0.00	0.00	0.00	-235.77	-409.19	-602.80	-574.96	179.7	179.69	170.68	251.43	7453	3050.7	1.40	8297	0.99991252	5924.6	0.697	0.88	0.88	
	L_{16}-L_{17}	-39.57	-84.87	3.57	-0.29	-4.95	0.18					9.09	2.60	-80.55	1.62	0.00	0.00	0.00	0.00	-430.81	52.60	-616.35	61.74	103.9	103.89	139.16	206.43	5023	2467.7	1.34	6912	0.99991414	5073.9	-0.100	0.56	0.56	
	L_{17}-L_{18}	-154.69	-31.48	0.31	-0.21	-4.45	1.62					2.81	-1.93	-40.06	14.60	0.00	0.00	0.00	0.00	-194.98	-45.10	-287.86	-9.30	121.1	121.08	112.11	157.22	3591	1640.0	1.30	5188	0.99990448	3891.8	0.032	0.61	0.61	
	L_{18}-L_{19}	-216.17	148.84	0.45	-0.44	-2.16	1.41					4.01	-2.71	-18.45	12.77	0.00	0.00	0.00	0.00	272.31	189.29	-387.16	230.79	83.6	83.58	74.62	100.97	2577	1026.3	1.21	3332	0.99990547	2705.5	-0.078	0.56	0.56	
	L_{19}-L_{20}	-136.64	-69.93	0.34	-0.19	-5.88	3.56					3.00	-1.70	-52.77	32.00	0.00	0.00	0.00	0.00	-177.02	-61.23	-291.96	-134.23	83.6	83.58	67.49	100.97	2577	1026.3	1.21	3332	0.99990547	2705.5	-0.409	0.56	0.56	
	L_0-L_1	2.99	-170.85	3.52	-7.93	-0.77	1.52					31.71	-71.39	-6.97	13.64	0.00	0.00	0.00	0.00	-72.99	-376.78	-11.20	-192.54	98.1	98.05	103.28	125.70	3592	1066.5	1.28	4148	0.99991164	3232.5	-0.193	0.52	0.52	
	L_1-L_2	56.19	-245.94	7.27	-10.75	0.00	0.00					26.05	-85.34	-7.70	19.48	0.00	0.00	0.00	0.00	-254.96	-495.96	16.52	-322.01	98.1	98.05	103.28	125.70	3592	1066.5	1.28	4148	0.99991164	3232.5	-0.153	0.52	0.52	
	L_2-L_3	-6.26	-180.81	1.66	-6.54	-1.30	-4.67					14.90	-58.82	-11.71	-41.99	0.00	0.00	0.00	0.00	24.14	-362.50	33.50	-326.02	162.9	162.89	147.19	219.93	6087	2613.8	1.35	7258	0.99991006	5370.7	-0.067	0.57	0.57	
	L_3-L_4	-39.57	-84.87	3.57	-0.29	-4.95	0.18					9.09	2.60	-80.55	1.62	0.00	0.00	0.00	0.00	-430.81	52.60	-616.35	61.74	103.9	103.89	139.16	206.43	5023	2467.7	1.34	6912	0.99991414	5073.9	-0.100	0.56	0.56	
	L_4-L_5	-253.03	-295.08	1.50	2.75	-8.74	-11.10					13.53	24.72	-78.69	-99.89	0.00	0.00	0.00	0.00	-299.66	-330.04	-499.45	-600.04	174.3	174.28	163.71	320.70	7266	3127.5	1.84	10583	0.99992244	5746.8	0.832	0.93	0.93	
	L_5-L_6	-59.31	-48.43	1.53	-1.20	-2.46	-1.78					1.17	-1.37	-18.46	-5.21	0.00	0.00	0.00	0.00	-81.24	-607.15	-235.40	-481.84	174.3	174.28	163.71	320.70	7266	3127.5	1.84	10583	0.99992244	5746.8	0.832	0.93	0.93	
	L_6-L_7	-475.14	-292.78	4.28	4.39	-14.53	-17.56					4.07	0.00	-150.93	-182.35	0.00	0.00	0.00	0.00	-534.20	-242.31	-890.94	-470.07	216.3	216.33	205.74	344.78	7625	3425.8	1.99	11778	0.99991114	7132.6	0.744	0.90	0.90	
	L_7-L_8	-280.52	-64.48	3.57	6.30	-18.35	-5.86					32.09	56.68	-164.69	-32.78	0.00	0.00	0.00	0.00	-295.13	38.98	-721.50	-198.18	205.7	205.71	195.15	274.47	5445	2642.2	1.33	9057	0.99989547	6781.3	0.275	0.71	0.71	
	L_8-L_9	-292.37	219.77	4.49	3.92	-15.62	-3.54					45.28	32.97	-85.43	-43.98	0.00	0.00	0.00	0.00	-427.99	292.06	-507.13	-550.17	168.2	168.24	149.99	221.24	6743	3050.7	1.40	8297	0.99991252	5924.6	0.697	0.88	0.88	
	L_9-L_{10}	-225.89	141.33	3.14	0.00	-12.17	0.24					28.25	54.01	-109.49	2.18	0.00	0.00	0.00	0.00	-232.41	300.25	-530.83	188.45	149.0	149.01	130.61	189.42	4793	1908.4	1.27	6251	0.99991268	4912.7	-0.355	0.46	0.46	
	L_{10}-L_{11}	-203.56	285.05	4.99	0.05	-11.49	1.75					44.87	57.85	-82.75	15.71	0.00	0.00	0.00	0.00	-264.78	363.87	-425.92	344.03	149.0	149.01	130.61	189.42	4793	1908.4	1.27	6251	0.99991268	4912.7	-0.355	0.46	0.46	
	L_{11}-L_{12}	-160.00	387.18	3.22	7.26	-8.33	13.68					29.00	65.31	-74.98	123.10	0.00	0.00	0.00	0.00	-145.24	644.97	-370.52	770.06	165.6	165.55	155.01	222.43	5842	2444.6	1.34	7340	0.99991421	5408.6	-0.481	0.41	0.41	
	L_{12}-L_{13}	-202.72	-204.41	4.62	-5.39	-7.27	-1.11					41.54	-48.48	-95.78	49.20	0.00	0.00	0.00	0.00	-173.54	-370.78	-400.20	-267.36	226.0	226.02	205.90	325.96	7665	3194.4	1.35	11452	0.99990035	7449.1	0.709	0.88	0.88	
	L_{13}-L_{14}	-75.75	-103.15	0.00	0.00	-3.51	36.53					0.00	0.00	-46.27	328.80	0.00	0.00	0.00	0.00	-488.47	-504.09	-1035.76	-1035.76	226.0	226.02	205.90	325.96	7665	3194.4	1.35	11452	0.99990035	8222.0	-0.396	0.45	0.45	
	L_{14}-L_{15}	1072.48	-412.36	37.66	-14.67	0.00	0.00					338.91	-132.01	0.00	0.00	0.00	0.00	0.00	0.00	2128.53	-822.10	1394.22	-536.07	249.4	249.40	238.81	347.03	8248	3698.4	1.39	11452	0.99990035	8222.0	-0.396	0.45	0.45	
	L_{15}-L_{16}	339.48	-45.53	11.93	-1.63	0.00	0.00					1.17	-1.06	-16.48	-5.21	0.00	0.00	0.00	0.00	428.39	-16.49	602.15	-285.40	249.4	249.40	238.81	347.03	8248	3698.4	1.39	10093	0.99989782	7449.1	0.709	0.88	0.88	
	L_{16}-L_{17}	475.61	-49.01	15.18	-4.07	0.00	0.00					136.66	-36.59	0.00	0.00	0.00	0.00	0.00	0.00	597.69	-142.98	611.80	-63.72	180.3	180.29	169.70	249.67	6400	2721.8	1.36	8197	0.99991257	5943.6	-0.157	0.54	0.54	
	L_{17}-L_{18}	237.42	-28.63	7.53	-2.53	0.00	0.00					73.62	-18.88	0.00	0.00	0.00	0.00	0.00	0.00	298.84	-73.83	305.90	-32.91	180.3	180.29	169.70	249.67	6400	2721.8	1.36	8197	0.99991257	5943.6	-0.157	0.54	0.54	
	L_{18}-L_{19}	226.53	-41.80	4.76	-3.32	-1.41	-4.41					42.84	29.84	-12.79	-39.66	0.00	0.00	0.00	0.00	387.30	-10.30	266.97	-149.28	127.4	127.41	116.92	157.02	3868	1501.0	1.23	5182	0.99989888	4200.3	0.027	0.61	0.61	
	L_{19}-L_{20}	214.46	-56.64	2.72	4.36	-1.96	-4.96					24.51	39.20	-17.60	-44.62	0.00	0.00	0.00	0.00	231.90	8.95	240.68	113.84	127.4	127.41	108.77	157.02	3868	1501.0	1.23	5182	0.99989891	4200.3	0.027	0.61	0.61	
	L_0-L_1	49.26	-202.49	3.15	4.81	-5.66	-7.21					28.37	43.25	-50.96	-64.91	0.00	0.00	0.00	0.00	125.50	-169.52	-46.37	-463.87	161.2	161.16	142.40	207.64	4574	2128.2	1.29	6852	0.99990257	5313.3	0.115	0.65	0.65	
	L_1-L_2	-197.12	-24.93	3.15	4.81	-5.66	-7.21					44.37	43.25	-50.96	-64.91	0.00	0.00	0.00	0.00	125.50	-169.52	-46.37	-463.87	161.2	161.16	142.40	207.64	4574	2128.2	1.29	6852	0.99990257	5313.3	0.115	0.65	0.65	
	L_2-L_3	-111.93	0.87	3.43	4.41	-8.08	-5.88					30.86	39.72	-81.68	-52.93	0.00	0.00	0.00	0.00	-76.64	87.19	-322.49	-113.54	161.2	161.16	150.63	207.64	4574	2128.2	1.29	6852	0.99990257	5313.3	0.332	0.74	0.74	
	L_3-L_4	-60.79	179.83	3.18	6.49	-4.58	2.12					28.66	40.33	-37.91	19.04	0.00	0.00	0.00	0.00	-16.94	321.26	-297.32	275.02	127.4	127.41	116.92	157.02	3868	1501.0	1.23	5182	0.99989888	4200.3	-0.053	0.58	0.58	
	L_4-L_5	-81.88	265.66	4.61	9.01	-6.20	4.93					41.47	8.19	-73.83	62.93	0.00	0.00	0.00	0.00	-16.59	363.11	-266.40	481.71	149.0	149.01	130.61	189.42	4793	1908.4	1.27	6251	0.99991268	4912.7	0.553	0.38	0.38	
	L_5-L_6	-73.14	411.52	2.32	4.32	-5.32	-3.32					23.76	41.68	-48.99	-30.05	0.00	0.00	0.00	0.00	-16.94	321.26	-297.32	275.02	127.4	127.41	116.92	157.02	3868	1501.0	1.23	5182	0.99989888	4200.3	-0.053	0.58	0.58	
	L_6-L_7	-100.08	-279.84	2.64	-7.67	-4.53	-10.36					23.76	-68.99	-40.73	-93.21	0.00	0.00	0.00	0.00	-78.58	-513.28	-218.34	-565.75	226.0	225.96	215.39	304.84	7460	3191.4	1.35	10060	0.99989785	7449.1	0.386	0.75	0.75	
	L_7-L_8	-372.05	1055.65	4.21	13.32	-11.47	36.53					0.00	0.00	-146.27	328.80	0.00	0.00	0.00	0.00	-1567.01	2246.48	-2744.61	3446.84	226.0	225.96	215.39	325.96	7665	3194.4	1.35	11452	0.99990035	8222.0	-0.396	0.45	0.45	
	L_8-L_9	-1027.57	362.88	38.74	-14.82	0.00	0.00					348.68	-133.40	0.00	0.00	0.00	0.00	0.00	0.00	2091.30	-760.77	1335.83	-471.74	249.4	249.40	238.81	347.03	8248	3698.4	1.39	11452	0.99990035	8221.8	-0.364	0.45	0.45	
	L_9-L_{10}	-227.20	-125.85	0.00	0.00	-10.81	2.17					0.00	0.00	-87.29	-19.53	0.00	0.00	0.00	0.00	-296.35	-160.60	-508.15	-205.91	226.0	225.96	215.39	304.84	7460	3191.4	1.35	10060	0.99989785	7449.1	0.386	0.75	0.75	
	L_{10}-L_{11}	68.89	-114.31	13.32	-7.67	0.00	0.00					26.37	-43.74	-254.61	-42.07	0.00	0.00	0.00	0.00	759.65	-202.26	1035.39	-276.54	226.0	225.96	215.39	325.96	7665	3194.4	1.35	11452	0.99990035	8222.0	-0.396	0.45	0.45	
	L_{11}-L_{12}	-278.16	-133.13	2.95	4.93	0.00	0.00					26.59	44.33	0.00	0.00	0.00	0.00	0.00	0.00	419.21	-77.03	361.60	-173.06	138.2	138.21	119.70	173.22	4264	1707.4	1.25	5716	0.99990142	4598.4	-0.194	0.53	0.53	
	L_{12}-L_{13}	-1027.57	362.88	38.74	-14.82	0.00	0.00					348.68	-133.40	0.00	0.00	0.00	0.00	0.00	0.00	2091.30	-760.77	1335.83	-471.74	249.4	249.40	238.81	347.03	8248	3698.4	1.39	11452	0.99990035	8221.8	-0.364	0.45	0.45	
	L_{13}-L_{14}	-445.18	-93.53	3.68	5.91	-14.89	-14.93					34.68	8.23	-134.00	-34.60	0.00	0.00	0.00	0.00	-503.10	-122.77	-869.07	-412.79	197.7	197.72	179.89	341.80	7583	3368.5	1.73	11279	0.99991758	6519.3	0.475	0.79	0.79	
	L_{14}-L_{15}	-291.76	-319.65	2.16	3.35	-9.36	-11.72					21.18	35.36	-87.03	-103.42	0.00	0.00	0.00	0.00	-333.41	-600.97	-579.54	-1035.76	226.0	225.96	215.39	325.96	7665	3194.4	1.35	11452	0.99990035	8222.0	-0.396	0.45	0.45	
	L_{15}-L_{16}	-392.42	-38.25	1.87	-0.52	-7.91	-1.51					16.83	-4.68	-71.18	-13.56	0.00	0.00	0.00	0.00	-473.68	39.09	-664.38	20.36	176.7	176.70	166.45	258.88	6704	2849.3	1.47	8543	0.99991494	6178.1	0.493	0.80	0.80	
	L_{16}-L_{17}	-297.29	-199.08	1.47	-0.61	-7.01	1.58					11.79	-1.70	-55.03	14.20	0.00	0.00	0.00	0.00	-357.67	194.83	-623.11	237.56	122.0	122.01	103.28	148.92	3592	1395.7	1.22	4914	0.99990336	4022.0	-0.494	0.42	0.42	
	L_{17}-L_{18}	-98.21	12.12	0.67	-0.61	-3.68	1.87					13.24	-5.53	-63.12	14.19	0.00	0.00	0.00	0.00	-357.67	194.83	-623.11	237.56	122.0	122.01	103.28	148.92	3592	1395.7	1.22	4914	0.99990336	4022.0	-0.494	0.42	0.42	
	L_0-L_1	24.89	-109.63	3.53	6.64	-0.32	0.50					31.75	-50.72	-2.85	4.49	0.00	0.00	0.00	0.00	100.89	-252.45	25.91	-132.62	83.6	83.58	67.49	100.97	2577	1026.3	1.21	3332	0.99990547	2705.5	-0.409	0.44	0.44	
	L_1-L_2	-139.96	-178.06	2.23	-6.10	-0.32	0.71					20.08	-54.93	-2.91	6.35	0.00	0.00	0.00	0.00	220.26	-350.48	170.45	-217.71	83.6	83.58	74.62	100.97	2577	1026.3	1.21	3332	0.99990547	2705.5	-0.628	0.35	0.35	
	L_2-L_3	47.96	-293.32	0.00	0.00	-0.74	-7.10					0.00	0.00	-6.64	-64.48	0.00	0.00	0.00	0.00	62.35	-382.10	41.96	-521.80	153.3	153.29	138.16	200.43	5012	2460.7	1.34	6912	0.99991414	5073.9	-0.092	0.56	0.56	
	L_3-L_4	-41.79	-343.26	2.26	1.80	-3.89	-15.66					2.31	16.16	-34.99	-146.93	0.00	0.00	0.00	0.00	-49.31	-411.22	-130.14	-751.69	179.7	179.69	164.15	251.43	6743	3050.7	1.40	8297	0.99991252	5924.6	0.173	0.67	0.67	
	L_4-L_5	-341.31	86.25	1.44	-1.40	-17.16	1.56					12.44	12.56	-159.85	14.03	0.00	0.00	0.00	0.00	-416.75	-139.35	-790.04	-142.91	162.9	162.89	147.19	219.93	6087	2613.8	1.35	7258	0.99991006	5370.6	-0.240	0.50	0.50	
	L_5-L_6	-201.18	152.50	1.21	1.87	-7.19	1.62					10.85	16.81	-84.74	14.61	0.00	0.00	0.00	0.00	-238.02	234.67	-401.80	229.89	92.6	92.58	76.68	114.47	3295	1304.9	1.24	3777	0.99991387	3052.5	-0.572	0.37	0.37	
	L_6-L_7	-148.72	-149.48	2.12	-1.15	-3.95	3.03					19.04	-10.36	-35.52	27.28	0.00	0.00	0.00	0.00	-150.80	-111.88	-269.01	-253.42	142.7	142.71	129.09	191.21	5010	2360.8	1.34	6570	0.99991494	4178.1	-0.092	0.56	0.56	
	L_7-L_8	-428.40	-26.47	18.69	-1.37	0.00	0.00					167.88	-12.29	0.00	0.00	0.00	0.00	0.00	0.00	605.65	-61.02	556.92	-34.41	145.8	145.75	130.44	228.84	6500	2932.4	1.57	7552	0.99992911	4806.3	-0.696	0.57	0.57	
	L_8-L_9	-1027.57	362.88	38.74	-14.82	0.00	0.00					348.68	-133.40	0.00	0.00	0.00	0.00	0.00	0.00	2091.30	-760.77	1335.83	-471.74	249.4	249.40	238.81	347.03	8248	3698.4	1.39	11452	0.99990035	8221.8	-0.364	0.45	0.45	
	L_9-L_{10}	-227.20	-125.85	0.00	0.00	-10.81	2.17					0.00	0.00	-87.29	-19.53	0.00	0.00	0.00	0.00	-296.35	-160.60	-508.15	-205.91	226.0	225.96	215.39	304.84	7460	3191.4	1.35	10060	0.99989785	7449.1	0.386	0.75	0.75	
	L_{10}-L_{11}	68.89	-114.31	13.32	-7.67	0.00	0.00					26.37	-43.74	-254.61	-42.07	0.00	0.00	0.00	0.00	759.65	-202.26	1035.39	-276.54	226.0	225.96	215.39	325.96	7665	3194.4	1.35	11452	0.99990035	8222.0	-0.396	0.45	0.45	
	L_{11}-L_{12}	-278.16	-133.13	2.95	4.93	0.00	0.00					26.59	44.33	0.00	0.00	0.00	0.00	0.00	0.00	419.21	-77.03	361.60	-173.06	138.2	138.21	119.70	173.22	4264	1707.4	1.25	5716	0.99990142	4598.4	-0.194	0.53	0.53	
	L_{12}-L_{13}	-1027.57	362.88	38.74	-14.82	0.00	0.00					348.68	-133.40	0.00	0.00	0.00	0.00	0.00	0.00	2091.30	-760.77	1335.83	-471.74	249.4	249.40	238.81	347.03	8248	3698.4	1.39	11452	0.99990

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: **HS20 Lane**
Condition: **As Inspected**

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.33	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

Owner Town - Vertical

Location	Member	M_2 Information: ZZ Axis Moments from STAAD — Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) (k-in)	Pedestrian Load (Min) Start (k-in)	Pedestrian Load End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)	Max. Neg. Mom. — Start (k-in)	Max. Neg. Mom. — End (k-in)	S_{top} (in^3)	S_b (in^3)	Z_z (in^3)	J (in^4)	I_{yy} (in^4)	Shape Factor f	M_p (k-in)	Formula 1.8 Term * F$_y$/S_{bc}	M_y (k-in)	Equivalent Mom. Factor a	$C_{b(x)}$	$C_{b(m)}$	M_2 Information: YY Axis Moments from STAAD — Dead Load (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) (k-in)	Pedestrian Load (Min) (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load (Max) Start (k-in)	Impact Pedestrian Load (Max) End (k-in)	Tension — Start (k-in)	Tension — End (k-in)	Pass	Fracture — S_{net} (in^3)	Fracture — I_{xx} (in^4)	Pass	Buckle — Axial Factor	Buckle — Moment Factor	Buckle — Total	Pass	Compression — Axial Factor	Compression — Moment Factor	Compression — Total	Pass
Structure 1	U_1–L_1	-29.87	-49.03	0.83	-0.94	-2.45	3.00						7.48	-8.50	-22.05	26.96	0.00	0.00	0.00	-22.67	46.33	-86.61	122.14	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.709	0.32	0.32	-105.35	-33.79	1.43	0.46	-12.84	-4.12																										
	U_1–L_2	-9.08	15.18	0.80	-0.84	-2.42	2.41						7.18	-7.60	-21.74	21.73	0.00	0.00	0.00	31.84	-33.54	-25.76	35.06	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.882	0.25	0.25	-12.55	-8.49	1.45	0.61	-1.19	-0.45																										
	L_1–L_1	13.70	13.70	0.80	-0.84	-2.42	2.41						7.18	-8.60	-18.01	22.01	0.00	0.00	0.00	31.84	-33.54	-25.76	35.06	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.721	0.31	0.31	-13.70	7.04	0.72	0.70	1.91	1.47																										
	U_1–L_3	33.45	-34.40	0.91	-1.11	-2.28	2.44						8.20	-9.95	-20.52	21.52	0.00	0.00	0.00	61.24	-66.29	-0.98	2.79	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.924	0.23	0.23	-64.34	-2.06	-0.82	-1.41	0.78	1.66																										
	L_1–L_2	41.64	-42.40	1.84	-1.97	-4.71	5.41						16.07	-18.85	-39.00	43.58	0.00	0.00	0.00	90.02	-81.79	-0.01	38.06	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-1.691	0.21	0.21	-123.65	-67.39	1.11	0.88	-28.14	-13.75																										
	U_2–L_2	45.56	-51.10	4.15	-4.28	0.00	0.00						37.32	-38.51	0.00	0.00	0.00	0.00	0.00	140.09	-149.86	59.22	-66.42	19.4	19.37	19.31	29.87	3	907.0	1.54	986	1.5	958.8	-0.935	0.23	0.23	-115.93	-55.77	1.22	0.35	0.00	0.00																										
	L_2–L_2	16.60	-16.60	3.30	-3.66	0.00	0.00						16.60	-16.60	0.00	0.00	0.00	0.00	0.00	134.55	-134.55	72.28	-72.28	23.8	20.80	20.67	34.66	4	1076.0	1.67	1144	1.5	1028.6	-0.960	0.21	0.21	-85.80	-26.05	-13.32	-6.16	13.53	12.00																										
	U_2–L_3	91.24	-101.87	5.12	-5.45	0.00	0.00						46.12	-49.09	0.00	0.00	0.00	0.00	0.00	218.53	-238.79	118.61	-132.43	18.5	18.45	18.36	30.78	3	1020.9	1.67	1016	1.5	913.3	-0.915	0.23	0.23	-100.40	-33.61	3.62	1.47	0.00	0.00																										
	L_2–L_3	-20.57	21.23	-3.45	-3.61	-3.09	3.70						40.16	-48.67	-27.80	33.32	0.00	0.00	0.00	60.27	-77.86	-86.97	99.76	107.1	107.13	107.11	162.71	26	2058.9	1.52	3269	1.5	3302.9	-0.972	0.25	0.25	-568.73	-52.55	9.98	2.55	-102.37	-3.69																										
	U_3–L_3	-135.26	109.48	0.00	0.00	-4.57	5.51						0.00	0.00	-41.16	49.56	0.00	0.00	0.00	-175.84	202.65	-265.01	310.03	33.1	33.05	32.91	54.51	14	1408.8	1.65	1799	1.5	1636.0	-0.956	0.26	0.26	-188.42	-131.91	0.00	0.00	2.74	-3.54																										
	L_3–L_3	-88.47	88.21	0.00	0.00	-3.37	3.22						0.00	0.00	-30.36	28.99	0.00	0.00	0.00	-115.01	114.67	-180.79	177.48	39.5	39.52	39.44	58.46	14	1309.7	1.65	1929	1.5	1758.2	-0.982	0.21	0.21	-156.98	-112.09	0.00	0.00	-1.58	-1.51																										
	U_3–L_4	-91.11	91.11	0.00	0.00	-3.55	3.55						0.00	0.00	-35.60	42.42	0.00	0.00	0.00	-118.44	161.28	-195.86	253.18	42.7	42.74	42.74	65.30	8	1389.6	1.53	2130	1.5	2115.6	-0.772	0.25	0.25	-207.12	-24.24	0.00	0.00	-27.22	-5.04																										
	L_3–L_4	-79.57	78.39	0.00	0.00	-3.33	3.51						0.00	0.00	-30.01	31.57	0.00	0.00	0.00	-103.44	101.90	-168.46	170.31	21.1	21.09	21.09	36.40	10	1137.6	1.68	1170	1.5	1044.0	-0.989	0.20	0.20	-96.08	4.08	0.00	0.00	0.44	-0.98																										
	U_4–L_4	-49.26	60.16	0.00	0.00	-3.88	3.99						0.00	0.00	-34.90	35.84	0.00	0.00	0.00	-64.04	78.21	-139.66	155.86	17.2	17.24	17.24	26.54	2	824.7	1.54	876	1.5	853.4	-0.896	0.24	0.24	-81.85	34.69	0.00	0.00	0.56	1.39																										
	L_4–L_4	-29.77	34.66	0.00	0.00	-1.53	1.59						0.00	0.00	-13.90	16.90	0.00	0.00	0.00	-37.30	43.61	-64.65	75.62	7.5	7.53	7.53	11.62	1	359.9	1.53	552	1.5	763.3	-0.707	0.28	0.28	-167.08	-22.40	-18.67	-2.00	-22.60	-1.14																										
	U_4–L_5	-1.50	-2.65	3.07	-3.10	-0.47	0.52						27.59	-27.86	-4.27	4.67	0.00	0.00	0.00	57.81	-63.81	-11.20	6.68	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.906	0.24	0.24	-127.88	-89.96	0.79	-1.21	0.12	0.31																										
	L_4–L_5	34.13	-36.55	0.32	-0.34	-2.63	-0.48	0.00					32.47	-38.73	10.34	-6.70	0.00	0.00	0.00	53.47	-58.75	13.34	-8.74	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.947	0.22	0.22	-131.11	-101.42	1.00	-1.15	0.07	-0.37																										
	U_5–L_5	46.23	-55.85	2.98	-3.09	-0.32	0.33						26.83	-27.82	-2.92	3.00	0.00	0.00	0.00	118.23	-132.87	53.78	-66.11	19.4	19.37	19.37	29.87	3	907.0	1.54	986	1.5	958.8	-0.890	0.24	0.24	-139.67	-87.50	4.19	0.51	0.21	0.26																										
	L_5–L_5	110.44	-114.63	4.92	-4.72	-0.44	0.44						46.46	-47.27	-3.24	3.98	0.00	0.00	0.00	231.23	-240.64	130.07	-140.42	19.3	19.29	19.09	30.01	3	1157.0	1.68	1166	1.5	1137.0	-0.951	0.22	0.22	-138.58	-44.74	3.84	0.21	-0.34	-0.09																										
	L_5–L_6	121.36	-131.26	4.60	-4.79	-0.39	0.39						41.44	-43.08	-3.49	3.47	0.00	0.00	0.00	247.54	-263.98	150.20	-163.13	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.938	0.22	0.22	-42.91	25.18	5.91	1.62	-0.18	-0.42																										
	U_6–L_6	-134.59	-173.50	4.36	-5.28	-0.22	0.31						39.22	-47.54	-1.94	2.42	0.00	0.00	0.00	-259.95	-328.54	170.78	-219.44	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.791	0.28	0.28	-48.55	6.36	9.18	1.20	-0.86	-0.11																										
	L_6–L_6	-114.23	168.91	3.15	-3.34	-0.19	0.19						37.02	-44.08	-1.79	2.23	0.00	0.00	0.00	-126.02	193.48	-93.26	143.26	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.796	0.28	0.28	-222.67	-29.66	1.49	0.24	-10.69	-1.81																										
	L_6–L_7	-123.79	131.39	1.16	-1.22	-4.77	5.21						10.42	-11.01	-42.94	46.88	0.00	0.00	0.00	-138.34	146.95	-253.06	272.38	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.932	0.23	0.23	-27.17	-60.93	1.46	0.13	-12.89	-3.10																										
	L_7–L_7	-55.49	113.46	1.36	-1.46	-4.63	4.89						11.92	-12.66	-42.63	43.97	0.00	0.00	0.00	-111.17	169.93	-203.52	312.03	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.911	0.23	0.23	-13.70	4.16	1.46	0.39	0.62	0.69																										
	U_7–L_7	-56.01	62.13	0.80	-0.84	-2.30	2.54						7.16	-7.52	-20.74	22.82	0.00	0.00	0.00	-57.31	64.47	-117.74	130.22	21.5	21.54	21.54	33.27	5	987.9	1.54	1098	1.5	1066.2	-0.964	0.24	0.24	-12.22	76.70	0.92	0.75	-8.01	-4.32																										
	L_7–L_7	-27.39	27.39	0.00	0.00	-0.87	0.87						0.00	0.00	-12.29	12.29	0.00	0.00	0.00	-27.39	27.39	-34.80	34.80	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.825	0.26	0.26	-33.20	31.92	0.00	0.00	14.68	0.00																										
	L_7–L_8	-7.04	-12.29	0.92	-0.96	-1.88	2.10						8.26	-8.64	-16.95	18.94	0.00	0.00	0.00	8.74	-2.74	-45.88	57.01	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.805	0.28	0.28	-66.81	41.04	-0.11	-0.56	0.95	1.99																										
	U_8–L_8	15.85	-15.59	0.77	-0.87	-1.77	1.83						6.91	-7.83	-15.96	18.44	0.00	0.00	0.00	35.58	-37.23	-13.97	15.36	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.956	0.22	0.22	-81.22	27.20	-0.14	-0.65	0.93	1.74																										
	L_8–L_8	38.85	-49.54	1.08	-1.28	-2.63	2.96						9.71	-11.34	-24.00	27.00	0.00	0.00	0.00	71.55	-82.99	-52.51	58.42	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.947	0.22	0.22	-138.58	-44.74	3.84	0.21	-0.34	-0.09																										
	L_8–L_9	86.91	-96.07	3.92	-3.92	0.00	0.00						35.28	-39.27	0.00	0.00	0.00	0.00	0.00	189.43	-201.31	112.99	-124.89	20.8	20.80	20.67	34.64	5	1037.5	1.67	1143	1.5	1029.6	-0.941	0.22	0.22	-127.87	-86.71	-7.22	-5.54	0.00	0.00																										
	L_9–L_9	-155.08	-189.43	4.47	-5.08	0.00	0.00						38.48	-46.50	0.00	0.00	0.00	0.00	0.00	298.41	-359.27	217.32	-262.68	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2212.1	-0.964	0.23	0.23	-85.64	-84.79	0.00	-2.29	0.00	0.00																										
	L_9–L_9	-141.23	-149.41	5.17	-5.35	0.00	0.00						46.61	-48.19	0.00	0.00	0.00	0.00	0.00	284.38	-298.96	183.69	-194.24	43.0	43.01	42.96	68.66	14	1479.6	1.60	2366	1.5	2129.0	-0.952	0.22	0.22	-124.75	-58.90	1.60	-0.28	0.00	0.00																										
	L_9–L_{10}	-192.55	-192.83	4.59	-5.19	0.00	0.00						41.28	-46.74	0.00	0.00	0.00	0.00	0.00	295.16	-297.34	195.71	-199.08	43.0	43.01	42.96	68.66	14	1479.6	1.60	2366	1.5	2129.0	-0.969	0.22	0.22	-93.98	-9.99	0.79	0.90	0.00	0.00																										
	L_{10}–L_{10}	147.41	-148.81	5.04	-5.20	0.00	0.00						47.46	-47.74	0.00	0.00	0.00	0.00	0.00	287.44	-288.52	189.71	-190.66	43.0	43.01	43.24	43.76	70.66	16	1515.6	1.64	2424	1.5	2212.1	-0.964	0.23	0.23	-93.64	-8.62	0.79	0.90	0.00	0.00																										
	L_{10}–L_{11}	203.52	-203.17	5.75	-6.79	0.00	-0.18						60.72	-61.10	-0.02	-1.64	0.00	0.00	0.00	396.14	-396.50	264.54	-267.66	39.2	39.17	39.11	63.33	14	1392.6	1.62	2090	1.5	1938.9	-0.999	0.20	0.20	-62.07	64.32	0.67	0.84	-1.52	-1.30																										
	L_{11}–L_{11}	60.05	-59.11	5.39	-6.09	0.74	0.00						53.06	-53.76	-0.74	-5.39	0.00	0.00	0.00	193.01	-178.84	-21.76	5.49	39.2	39.17	39.11	63.33	14	1392.6	1.62	2090	1.5	1938.9	-0.991	0.20	0.20	-77.82	32.92	0.26	0.80	0.00	0.00																										
	L_{11}–L_{12}	-109.89	162.81	1.08	-1.91	-6.75	6.72						9.71	-8.20	-60.74	60.44	0.00	0.00	0.00	-186.78	193.89	-338.43	342.62	39.2	39.17	39.11	63.33	14	1392.6	1.62	2090	1.5	1938.9	-0.991	0.20	0.20	-93.14	-69.02	1.33	1.38	-9.34	-11.41																										
	L_{12}–L_{12}	-130.33	130.15	1.15	-1.31	-5.41	5.39						7.78	-6.56	-48.59	48.35	0.00	0.00	0.00	-149.42	155.11	-270.74	274.09	39.2	39.17	39.11	63.33	14	1392.6	1.62	2090	1.5	1938.9	-0.999	0.20	0.20	-74.46	55.44	0.53	0.84	-1.22	-1.04																										
	L_{12}–L_{13}	-130.37	127.18	0.66	-0.83	-7.62	7.53						5.90	-7.48	-68.62	67.79	0.00	0.00	0.00	-156.68	149.13	-318.19	312.21	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.981	0.21	0.21	-81.62	-40.51	0.70	0.21	-0.94	-0.85																										
	L_{13}–L_{13}	-113.07	114.60	0.38	-0.52	-5.33	5.67						3.38	-6.50	-47.96	52.79	0.00	0.00	0.00	-139.66	134.90	-250.91	263.36	39.8	39.83	39.83	59.23	6	1284.6	1.53	1993	1.5	1922.1	-0.953	0.22	0.22	-82.25	-34.41	0.64	-0.16	-22.91	-3.36																										
	L_{13}–L_{14}	-67.70	67.44	0.34	-0.47	-3.26	3.45						3.58	-4.07	-26.64	26.64	0.00	0.00	0.00	-84.87	84.87	-150.27	150.27	32.9	32.92	32.92	49.01	10	1037.5	1.57	1413	1.5	1307.5	-0.971	0.23	0.23	-80.57	-58.68	0.34	-0.26	-14.29	-2.26																										
	L_{14}–L_{14}	-44.77	-66.58	0.05	-0.10	-2.30	2.47						0.47	-0.89	-20.69	22.20	0.00	0.00	0.00	-57.18	58.62	-103.03	108.65	17.2	17.24	17.24	26.54	2	824.7	1.54	876	1.5	853.4	-0.948	0.22	0.22	-85.99	-10.12	-0.18	-1.27	-0.57	1.36																										
	L_{14}–L_{15}	-30.30	-34.39	0.18	-0.27	-1.30	1.39						0.00	0.00	-11.48	11.48	0.00	0.00	0.00	-35.95	35.95	-62.59	62.59	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.894	0.26	0.26	-100.89	-35.54	-5.30	-1.70	1.48	0.56																										
	L_{15}–L_{15}	-9.69	4.33	0.70	-0.80	-0.47	0.55						6.34	-7.21	-4.26	4.88	0.00	0.00	0.00	8.53	-9.99	-14.02	16.41	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.854	0.26	0.26	-100.89	-35.54	-5.30	-1.70	1.48	0.56																										
	L_{15}–L_{16}	-22.65	25.72	3.20	-3.56	-0.86	0.98						22.43	-23.64	-1.07	1.18	0.00	0.00	0.00	100.40	-106.01	49.49	-52.23	17.2	17.24	17.24	26.54	2	824.7	1.54	876	1.5	853.4	-0.947	0.22	0.22	-103.12	-39.19	0.72	-1.18	0.03	0.07																										
	L_{16}–L_{16}	68.57	-67.50	3.67	-3.80	-0.10	0.16						33.01	-32.40	-0.89	1.44	0.00	0.00	0.00	-158.07	-157.95	84.61	-84.63	18.7	18.71	18.61	31.48	8	970.0	1.68	1039	1.5	926.1	-0.999	0.20	0.20	-97.18	-21.29	3.45	0.02	0.08	1.00																										
	L_{16}–L_{17}	-70.00	122.51	0.48	-0.61	-4.96	5.06						5.06	-4.96	-45.93	46.03	0.00	0.00	0.00	-113.89	196.13	-154.45	265.99	18.7	18.71	18.61	31.48	8	970.0	1.68	1039	1.5	926.1	-0.999	0.20	0.20	-175.76	-84.23	1.13	0.89	0.45	0.52																										
	L_{17}–L_{17}	-38.29	-139.04	8.15	-8.15	-0.48	0.53						73.37	-73.34	-4.34	4.34	0.00	0.00	0.00	-338.74	-339.65	170.37	-170.39	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.997	0.20	0.20	-106.86	6.96	0.85	0.95	-0.19	0.70																										
	L_{17}–L_{18}	-124.04	-126.64	0.74	-0.89	-4.74	4.74						0.00	0.00	-45.80	42.65	0.00	0.00	0.00	-193.01	-178.84	-21.76	5.49	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2212.1	-0.993	0.20	0.20	-77.82	32.92	0.26	0.80	0.00	0.00																										
	L_{18}–L_{18}	-173.96	-176.28	7.52	-7.84	-0.07	-0.23						71.32	-70.52	-0.62	-2.07	0.00	0.00	0.00	-360.67	-381.95	-224.81	-233.65	39.2	39.17	39.11	63.33	14	1392.6	1.62	2090	1.5	1938.9	-0.997	0.20	0.20	-75.72	29.87	3.69	1.39	-1.73	-1.41																										
	L_{18}–L_{19}	-2.25	2.82	0.34	-0.43	-0.14	0.17						4.93	-4.64	-59.66	59.71	0.00	0.00	0.00	-59.28	34.64	-185.98	112.72	18.7	18.71	18.61	31.48	8	970.0	1.68	1039	1.5	926.1	-0.997	0.20	0.20	-59.28	34.64	-185.98	112.72	18.7	18.71	18.61	31.48	8	970.0	1.68	1039	1.5	926.1	-0.997	0.20	0.20	-75.72	29.87	3.69	1.39	-1.73	-1.41																										
	L_{19}–L_{19}	-167.25	167.49	3.55	-3.52	-6.63	6.63						4.93	-4.64	-59.66	59.71	0.00	0.00	0.00	-206.73	207.67	-346.68	347.10	39.2	39.17	39.11	63.33	14	1392.6	1.62	2090	1.5	1938.9	-0.999	0.20	0.20	-134.56	-62.84	0.65	-0.10	-9.34	-11.41																										
	L_{19}–L_{20}	-116.13	110.00	0.47	-0.91	-5.59	5.10						4.21	-8.23	-50.27	45.91	0.00	0.00	0.00	-141.84	125.17	-259.88	242.46	43.2	43.24	43.16	70.66	19	1515.6	1.63	2332	1.5	2140.4	-0.933	0.23	0.23	-132.21	-73.84	-0.17	-0.18	-2.21	-0.65																										
	L_{20}–L_{20}	-124.39	121.90	0.47	-0.91	-5.59	5.10						4.21	-8.23	-50.27	45.91	0.00	0.00	0.00	-167.71	158.07	-307.71	299.38	43.2	43.24	43.16	70.66	19	1515.6	1.63	2332	1.5	2140.4	-0.933	0.23	0.23	-79.08	-73.84	-0.17	-0.18	-2.21	-0.65																										
	L_{20}–L_{21}	-119.87	124.44	0.00	0.00	-3.65	3.59						0.00	0.00	-34.61	35.73	0.00	0.00	0.00	-155.83	161.77	-230.83	239.18	43.0	43.01	42.96	68.66	14	1479.6	1.60	2366	1.5	2129.0	-0.965	0.21	0.21	-78.64	14.47	0.00	0.00	2.42	-1.95																										
	L_{21}–L_{21}	-81.40	82.42	0.00	0.00	-3.04	3.04						0.00

Moment (Start) - Al2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	U_0-L_1	-12.57	3.38	0.39	-0.24	-1.07	0.66				
	L_1-L_2	-1.68	-7.06	0.33	-10.14	-0.99	0.35				
	L_2-L_3	-0.68	-8.38	0.66	-11.01	-0.86	0.21				
	L_3-L_4	9.78	-11.76	0.37	0.04	-0.88	-0.93				
	L_4-U_5	-10.33	-17.60	0.13	-13.92	-1.04	-2.90				
	U_5-L_5	-26.83	58.49	0.24	1.08	-2.29	1.58				
	L_5-L_6	-74.80	111.68	3.26	0.46	-2.37	2.07				
	L_6-U_7	-58.84	54.78	0.37	0.72	-1.98	1.17				
	U_7-L_7	-55.25	39.07	0.00	0.00	-2.16	2.10				
	L_7-L_8	-55.25	39.07	0.00	0.00	-2.16	2.10				
	L_8-U_9	-20.99	7.38	0.00	0.00	-1.53	0.30				
	U_9-L_9	-1.58	-30.29	0.00	0.00	-0.27	-1.95				
	L_9-L_{10}	-19.00	4.09	0.24	-0.20	-1.34	1.06				
	L_{10}-U_{11}	-28.64	12.99	0.23	0.00	-1.95	1.21				
	U_{11}-L_{11}	-89.35	58.13	0.34	-0.29	-3.26	2.80				
	L_{11}-L_{12}	-89.35	61.38	0.30	-0.31	-3.26	2.57				
	L_{12}-U_{13}	-105.39	89.05	0.17	0.18	-3.39	2.94				
	U_{13}-L_{13}	-82.31	86.26	0.94	-0.88	-4.25	3.90				
	L_{13}-L_{14}	-81.74	86.26	0.76	-0.88	-4.25	3.76				
	L_{14}-U_{15}	-61.24	62.98	1.04	-0.85	-3.56	2.67				
	U_{15}-L_{15}	-17.36	7.00	0.55	-0.42	-1.38	0.99				
	L_{15}-L_{16}	-17.36	7.00	0.55	-0.42	-1.38	0.99				
	L_{16}-U_{17}	7.43	-21.61	0.01	-1.02	-0.25	0.17				
	U_{17}-L_{17}	7.43	-23.92	0.44	-0.27	-0.91	-0.11				
	L_{17}-L_{18}	-44.32	35.88	0.00	0.00	-2.13	0.82				
	L_{18}-U_{19}	-66.39	68.66	0.12	0.00	-3.20	2.25				
	U_{19}-L_{19}	-88.55	73.83	0.40	0.73	-3.61	1.75				
	L_{19}-L_{20}	-110.40	89.00	0.00	0.00	-3.89	2.29				
	L_{20}-U_{21}	-108.38	116.68	0.43	0.51	-4.38	4.25				
	U_{21}-L_{21}	-154.28	139.71	0.48	-0.19	-5.27	4.83				
	L_{21}-L_{22}	-80.83	80.83	0.00	0.00	-3.25	3.25				
	L_{22}-U_{23}	-24.73	100.38	1.26	-0.79	-2.41	3.35				
	U_{23}-L_{23}	-98.38	3.24	0.10	-0.32	-4.68	0.29				
	L_{23}-L_{24}	-74.14	95.51	0.85	-0.37	-4.40	5.00				
	L_{24}-U_{25}	-55.49	68.89	0.89	-0.20	-3.06	2.82				
	U_{25}-L_{25}	-55.49	68.89	0.89	-0.20	-3.06	2.82				
	L_{25}-L_{26}	-32.97	39.97	0.35	0.20	-2.11	1.62				
	L_{26}-U_{27}	-10.32	16.64	0.14	0.00	-0.66	0.51				
	U_{27}-L_{27}	-10.32	4.39	0.14	0.19	-1.39	0.00				
	L_{27}-L_{28}	-17.08	16.16	0.21	0.07	-1.44	1.15				
	L_{28}-U_{29}	-25.34	25.34	0.36	0.00	-2.17	2.17				
	U_{29}-L_{29}	-55.69	65.14	0.23	0.25	-3.14	2.58				
	L_{29}-L_{30}	-69.22	80.41	0.58	0.08	-4.46	3.99				
	L_{30}-U_{31}	-98.38	3.24	0.10	-0.32	-4.68	0.29				
	U_{31}-L_{31}	-106.11	102.57	0.52	-0.46	-5.30	4.75				
	L_{31}-L_{32}	-70.71	70.71	0.00	0.00	-3.25	3.25				
	L_{32}-U_{33}	-47.67	126.15	1.19	-0.55	-3.11	4.23				
	U_{33}-L_{33}	-89.53	99.33	0.64	0.22	-4.30	4.17				
	L_{33}-L_{34}	-86.54	82.57	0.82	0.55	-3.31	2.13				
	L_{34}-U_{35}	-60.17	67.66	0.04	0.81	-3.12	2.13				
	U_{35}-L_{35}	-60.17	67.66	0.04	0.81	-3.12	2.13				
	L_{35}-L_{36}	-12.59	26.40	0.49	0.25	-1.05	-0.01				
	L_{36}-U_{37}	6.51	-17.79	0.56	-0.39	-1.24	0.80				
	U_{37}-L_{37}	-17.88	6.51	0.07	-0.39	-1.24	0.80				
	L_{37}-L_{38}	-38.92	20.55	0.60	-0.30	-2.21	1.80				
	L_{38}-U_{39}	-68.53	71.15	0.80	-0.68	-3.69	3.07				
	U_{39}-L_{39}	-68.53	71.15	0.80	-0.68	-3.69	3.07				
	L_{39}-L_{40}	-70.40	69.24	0.39	0.33	-4.04	3.18				
	L_{40}-U_{41}	-86.92	56.40	0.39	-0.29	-3.03	2.23				
	U_{41}-L_{41}	-28.11	12.70	0.26	-0.20	-1.66	1.23				
	L_{41}-L_{42}	-28.11	12.70	0.26	-0.20	-1.66	1.23				
	L_{42}-U_{43}	-5.07	-18.30	0.22	-0.17	-1.16	-0.33				
	U_{43}-L_{43}	-5.07	-18.30	0.22	-0.17	-1.16	-0.33				
	L_{43}-L_{44}	-50.49	35.10	0.00	0.00	-2.21	2.14				
	L_{44}-U_{45}	-59.60	20.61	0.30	0.59	-2.92	0.82				
	U_{45}-L_{45}	-84.29	82.10	0.60	-0.25	-3.19	3.22				
	L_{45}-L_{46}	-77.34	67.11	0.08	0.65	-2.50	2.30				
	L_{46}-U_{47}	-84.29	82.10	0.60	-0.25	-3.19	3.22				
	U_{47}-L_{47}	-2.84	82.10	0.60	1.25	-1.28	2.67				
	L_{47}-L_{48}	-54.59	58.66	0.14	0.60	-3.32	3.34				
	L_{48}-U_{49}	-9.15	17.58	0.10	0.69	-1.53	-0.39				
	U_{49}-L_{49}	-9.15	17.58	0.10	0.69	-1.53	-0.39				
	L_{49}-L_{50}	-0.13	-8.77	0.45	-0.17	-0.95	-0.14				
	L_{50}-U_{51}	-23.22	7.61	0.14	-0.15	-0.62	0.65				

ZZ Axis Moment Properties

Location	Member	Max. Pos. Moment Start (k-in)	Max. Pos. Moment End (k-in)	Max. Neg. Moment Start (k-in)	Max. Neg. Moment End (k-in)	S_{top} (in^3)	S_b (in^3)	Z_z (in^3)	I (in^4)	I_{xx} (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F/S_{bc}	M_2 (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor C_{mx}	Equivalent Mom. Factor $C_{mx/m}$
Structure 1	U_0-L_1	-8.71	0.23	37.12	17.34	15.6	15.63	15.58	25.56	5	804.0	1.66	857	1.5	773.7	-0.467	0.41	0.41
	L_1-L_2	4.17	-11.99	-21.29	-2.36	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	0.110	0.64	0.64
	L_2-L_3	8.69	-13.59	-10.78	-6.80	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	0.400	0.76	0.76
	L_3-L_4	19.89	-14.51	-4.44	-33.39	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	0.133	0.65	0.65
	L_4-U_5	-10.85	34.07	-13.92	-13.35	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	0.446	0.77	0.77
	U_5-L_5	-30.22	97.18	-79.56	106.83	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5	1737.0	-0.745	0.30	0.30
	L_5-L_6	-72.72	85.01	-158.70	24.51	35.1	35.09	35.09	53.13	4	1183.7	1.51	1753	1.5	1737.0	-0.978	0.21	0.21
	L_6-U_7	-59.84	53.07	-147.31	125.12	40.7	40.70	40.44	67.92	25	1661.0	1.67	2241	1.5	2014.7	-0.949	0.26	0.26
	L_7-L_8	-66.62	85.19	-112.57	94.04	39.8	39.77	39.56	65.61	21	1610.3	1.65	2165	1.5	1968.6	-0.835	0.27	0.27
	L_8-U_9	-16.17	41.61	-126.12	69.78	42.7	42.74	42.74	63.30	8	1389.6	1.53	2155	1.5	2115.6	-0.292	0.46	0.46
	L_9-L_{10}	0.00	0.00	-19.48	18.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{10}-U_{11}	27.28	9.59	-57.02	15.46	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.271	0.49	0.49
	L_{11}-L_{12}	5.75	-26.40	-32.72	13.05	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.271	0.49	0.49
	L_{12}-U_{13}	-19.94	1.40	-50.85	26.02	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.572	0.40	0.40
	U_{13}-L_{13}	-32.72	13.05	-75.23	40.51	15.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.338	0.48	0.48
	L_{13}-L_{14}	-109.56	89.86	-181.71	130.11	35.1	35.09	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.716	0.31	0.31
	L_{14}-U_{15}	-115.39	75.29	-180.79	123.96	35.1	35.09	34.83	59.23	3	1264.6	1.53	1955	1.5	1922.1	-0.852	0.32	0.32
	L_{15}-U_{15}	-133.68	112.19	-263.14	173.09	38.8	38.83	38.83	59.23	3	1264.6	1.53	1955	1.5	1922.1	-0.852	0.26	0.26
	L_{16}-U_{17}	-88.65	96.04	-189.84	188.23	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.992	0.20	0.20
	L_{17}-U_{17}	-128.16	72.45	-233.56	153.76	42.7	42.74	42.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.702	0.29	0.29
	L_{18}-U_{19}	-67.27	55.23	-214.76	194.96	133.93	35.1	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.766	0.29	0.29
	L_{19}-L_{20}	-83.63	83.63	-170.34	152.01	38.8	38.83	38.83	59.23	3	1264.6	1.53	1955	1.5	1922.1	-0.852	0.24	0.24
	L_{20}-U_{21}	-105.37	67.61	-172.14	116.89	38.8	38.83	38.83	59.23	6	1264.6	1.53	1955	1.5	1922.1	-0.679	0.33	0.33
	L_{21}-U_{21}	-83.71	50.09	-167.63	109.74	38.8	38.83	38.83	59.23	6	1264.6	1.53	1955	1.5	1922.1	-0.679	0.33	0.33
	L_{22}-U_{23}	-28.82	12.65	-66.26	40.57	19.4	19.37	19.37	29.87	1	907.0	1.54	986	1.5	958.8	-0.612	0.36	0.36
	L_{23}-U_{23}	-52.73	30.79	-92.52	59.66	19.4	19.37	19.37	29.87	1	907.0	1.54	986	1.5	958.8	-0.612	0.36	0.36
	L_{24}-U_{25}	-27.55	7.07	-42.20	23.29	15.6	15.63	15.58	25.56	5	804.0	1.66	857	1.5	773.7	-0.552	0.38	0.38

YY Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	U_0-L_1	2.73	2.13	-33.50	-16.65	0.00	0.00	0.00	0.00	-82.73	-20.42
	L_1-L_2	-4.37	0.28	-25.29	-16.62	0.00	0.00	0.00	0.00	-50.47	-38.39
	L_2-L_3	14.56	13.10	-2.26	-0.16	0.00	0.00	0.00	0.00	-30.06	-54.14
	L_3-L_4	17.14	24.53	-27.66	-27.08	0.00	0.00	0.00	0.00	-79.47	4.48
	L_4-U_5	29.19	36.18	-30.18	-26.06	0.00	0.00	0.00	0.00	-89.69	-37.43
	U_5-L_5	36.34	34.61	-165.06	-24.81	0.00	0.00	0.00	0.00	-267.49	170.84
	L_5-L_6	-32.72	13.05	-75.23	40.51	0.00	0.00	0.00	0.00	-268.32	110.44
	L_6-U_7	45.08	14.11	-26.12	-3.61	0.00	0.00	0.00	0.00	-340.79	205.67
	L_7-L_8	59.07	22.16	11.75	26.64	0.00	0.00	0.00	0.00	-210.98	183.15
	L_8-U_9	2.35	3.55	8.29	-22.27	0.00	0.00	0.00	0.00	-94.51	168.47
	L_9-L_{10}	7.58	8.69	-1.40	5.12	0.00	0.00	0.00	0.00	-36.60	-50.30
	L_{10}-U_{11}	10.24	10.17	-22.86	-27.08	0.00	0.00	0.00	0.00	-170.14	-141.10
	L_{11}-L_{12}	0.00	0.00	-20.73	-21.84	0.00	0.00	0.00	0.00	-229.48	-196.46
	L_{12}-U_{13}	0.00	0.00	-37.52	-21.97	0.00	0.00	0.00	0.00	-359.52	-257.20
	L_{13}-L_{14}	-67.78	-135.55	0.00	0.12	-3.83	-3.83	0.00	0.00	-64.70	-167.98
	L_{14}-U_{15}	3.47	3.78	-30.92	-25.97	0.00	0.00	0.00	0.00	-65.68	-108.27
	L_{15}-U_{15}	1.63	3.53	-23.09	-21.69	0.00	0.00	0.00	0.00	-29.80	-90.64
	L_{16}-U_{17}	-2.22	1.40	-37.36	-23.20	0.00	0.00	0.00	0.00	-15.98	-50.68
	L_{17}-U_{17}	-1.54	1.41	-36.29	-21.06	0.00	0.00	0.00	0.00	-15.98	-50.68
	L_{18}-U_{19}	1.54	-1.32	-40.67	-17.87	0.00	0.00	0.00	0.00	-6.61	-44.98
	L_{19}-L_{20}	1.08	3.91	-50.33	-27.16	0.00	0.00	0.00	0.00	-131.57	41.32
	L_{20}-U_{21}	9.50	7.76	-49.44	-22.23	0.00	0.00	0.00	0.00	-85.17	-170.34
	L_{21}-U_{21}	4.47	-3.05	-51.54	-2.99	0.00	0.00	0.00	0.00	-85.17	-170.34
	L_{22}-U_{23}	0.68	1.44	-24.07	-26.70	0.00	0.00	0.00	0.00	-214.41	-158.79
	L_{23}-U_{23}	10.54	12.52	-22.53	-26.70	0.00	0.00	0.00	0.00	-214.41	-158.79
	L_{24}-U_{25}	11.76	16.22	-12.74	-69.12	0.00	0.00	0.00	0.00	-188.82	-139.79
	L_{25}-U_{25}	0.00	0.00	-31.25	-18.11	0.00	0.00	0.00	0.00	-25.60	-113.30
	L_{26}-U_{27}	0.00	0.00	-37.52	-21.97	0.00	0.00	0.00	0.00	-359.52	-257.20
	L_{27}-U_{27}	0.00	0.00	-37.52	-21.97	0.00	0.00	0.00	0.00	-359.52	-257.20
	L_{28}-U_{29}	0.00	0.00	-37.52	-21.97	0.00	0.00	0.00	0.00	-359.52	-257.20
	L_{29}-U_{29}	0.00	0.00	-37.52	-21.97	0.00	0.00	0.00	0.00	-359.52	-257.20
	L_{30}-U_{31}	-67.78	-135.55	0.00	0.12	-3.83	-3.83	0.00	0.00	-64.70	-167.98
	L_{31}-U_{31}	3.47	3.78	-30.92	-25.97	0.00	0.00	0.00	0.00	-65.68	-108.27
	L_{32}-U_{33}	1.63	3.53	-23.09	-21.69	0.00	0.00	0.00	0.00	-29.80	-90.64
	L_{33}-U_{33}	-2.22	1.40	-37.36	-23.20	0.00	0.00	0.00	0.00	-15.98	-50.68
	L_{34}-U_{35}	-1.54	1.41	-36.29	-21.06	0.00	0.00	0.00	0.00	-15.98	-50.68
	L_{35}-U_{35}	1.54	-1.32	-40.67	-17.87	0.00	0.00	0.00	0.00	-6.61	-44.98
	L_{36}-U_{37}	1.08	3.91	-50.33	-27.16	0.00	0.00	0.00	0.00	-131.57	41.32
	L_{37}-U_{37}	9.50	7.76	-49.44	-22.23	0.00	0.00	0.00	0.00	-85.17	-170.34
	L_{38}-U_{39}	4.47	-3.05	-51.54	-2.99	0.00	0.00	0.00	0.00	-85.17	-170.34
	L_{39}-U_{39}	0.68	1.44	-24.07	-26.70	0.00	0.00	0.00	0.00	-214.41	-158.79
	L_{40}-U_{41}	10.54	12.52	-22.53	-26.70	0.00	0.00	0.00	0.00	-214.41	-158.79
	L_{41}-U_{41}	11.76	16.22	-12.74	-69.12	0.00	0.00	0.00	0.00	-188.82	-139.79
	L_{42}-U_{43}	0.00	0.00	-31.25	-18.11	0.00	0.00	0.00	0.00	-25.60	-113.30
	L_{43}-U_{43}	0.00	0.00	-37.52	-21.97	0.00	0.00	0.00	0.00	-359.52	-257.20
	L_{44}-U_{45}	0.00	0.00	-37.52	-21.97	0.00	0.00	0.00	0.00	-359.52	-257.20
	L_{45}-U_{45}	0.00	0.00	-37.52	-21.97	0.00	0.00	0.00	0.00	-359.52	-257.20
	L_{46}-U_{47}	-67.78	-135.55	0.00	0.12	-3.83	-3.83	0.00	0.00	-64.70	-167.98
	L_{47}-U_{47}	3.47	3.78	-30.92	-25.97	0.00	0.00	0.00	0.00	-65.68	-108.27
	L_{48}-U_{49}	1.63	3.53	-23.09	-21.69	0.00	0.00	0.00	0.00	-29.80	-90.64
	L_{49}-U_{49}	-2.22	1.40	-37.36	-23.20	0.00	0.00	0.00	0.00	-15.98	-50.68
	L_{50}-U_{51}	-1.54	1.41	-36.29	-21.06	0.00	0.00	0.00	0.00	-15.98	-50.68
	L_{51}-U_{51}	1.54	-1.32	-40.67	-17.87	0.00	0.00	0.00	0.00	-6.61	-44.98

YY Axis Moment Properties

Location	Member	Max. Pos. Moment Start (k-in)	Max. Pos. Moment End (k-in)	Max. Neg. Moment Start (k-in)	Max. Neg. Moment End (k-in)	S_{top} (in^3)	S_b (in^3)	Z_y (in^3)	I_{yy} (in^4)	I_{xx} (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F/S_{bc}	M_{2y} (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor C_{my}	Equivalent Mom. Factor $C_{my/m}$
Structure 1	U_0-L_1	2.73	2.13	-33.50	-16.65	0.00	0.00	0.00	0.00	-82.73	-20.42	-141.22	-61.15	100.5	100.60	100.48	126.29
	L_1-L_2	-4.37	0.28	-25.29	-16.62	0.00	0.00	0.00	0.00	-50.47	-38.39	-95.79	-75.02	93.99	93.99	93.99	104.66
	L_2-L_3	14.56	13.10	-2.26	-0.16	0.00	0.00	0.00	0.00	-30.06	-54.14	-108.57	-143.70	94.0	93.99	93.99	104.66
	L_3-L_4	17.14	24.53	-27.66	-27.08	0.00	0.00	0.00	0.00	-79.47	4.48	-176.52	-107.33	94.0	93.99	93.99	104.66
	L_4-U_5	29.19	36.18	-30.18	-26.06	0.00	0.00	0.00	0.00	-89.69	-37.43	-113.47	-113.37	133.37	130.15	82.8	115.36
	U_5-L_5	36.34	34.61	-165.06	-24.81	0.00	0.00	0.00	0.00	-267.49	170.84	-165.06	-24.81	0.00	0.00	0.0	0.00
	L_5-L_6	-32.72	13.05	-75.23	40.51	0.00	0.00	0.00	0.00	-268.32	110.44	-329.38	94.26	0.00	0.00	0.0	0.00
	L_6-U_7	45.08	14.11	-26.12	-3.61	0.00	0.00	0.00	0.00	-340.79	205.67	-186.57	-167.27	148.0	147.96	147.96	167.25
	L_7-L_8	59.07	22.16	11.75	26.64	0.00	0.00	0.00	0.00	-210.98	183.15	-168.47	-192.86	202.9	202.86	190.44	238.56
	L_8-U_9	2.35	3.55	8.29	-22.27	0.00	0.00	0.00	0.00	-94.51	168.47	-94.51	-168.47	202.9	202.86	190.44	238.56
	L_9-L_{10}	7.58	8.69	-1.40	5.12	0.00	0.00	0.00	0.00	-36.60	-50.30	-56.06	-58.52	197.4	197.41	184.99	230.30
	L_{10}-U_{11}	10.24	10.17	-22.86	-27.08	0.00	0.00	0.00	0.00	-170.14	-141.10	-204.22	-223.10	173.7	173.70	173.70	202.71
	L_{11}-L_{12}	0.00	0.00	-20.73	-21.84	0.00	0.00	0.00	0.00	-229.48	-196.46	-274.39	-242.78	133.5	133.45	128.27	155.40
	L_{12}-U_{13}	0.00	0.00	-37.52	-21.97	0.00	0.00	0.00	0.00	-359.52	-257.20	-447.48	-254.80	94.0	93.99	93.99	104.66
	L_{13}-L_{14}	-67.78	-135.55	0.00	0.12	-3.83	-3.83	0.00	0.00	-64.70	-167.98	-249.42	-303.10	148.0	147.96	147.96	167.25
	L_{14}-U_{15}	3.47	3.78	-30.92	-25.97	0.00	0.00	0.00	0.00	-65.68	-108.27	-140.19	-172.74	94.0	93.99	93.99	104.66
	L_{15}-U_{15}	1.63	3.53	-23.09	-21.69	0.00	0.00	0.00	0.00	-29.80	-90.64	-89.74	-113.41	113.37	113.32	82.8	102.57
	L_{16}-U_{17}	-2.22	1.40	-37.36	-23.20	0.00	0.00	0.00	0.00	-15.98	-50.68	-60.15	-103.97	148.0	147.96	147.96	167.25
	L_{17}-U_{17}	-1.54	1.41	-36.29	-21.06	0.00	0.00	0.00	0.00	-15.98	-50.68	-60.15	-103.97	148.0	147.96	147.96	167.25
	L_{18}-U_{19}	1.54	-1.32	-40.67	-17.87	0.00	0.00	0.00	0.00	-6.61	-44.98	-140.53	-13.47	160.8	160.87	160.57	184.25
	L_{19}-L_{20}	1.08	3.91	-50.33	-27.16	0.00	0.00	0.00	0.00	-131.57	41.32	-242.95	-26.00	173.7	173.70	173.70	202.71
	L_{20}-U_{21}	9.50	7.76	-49.44	-22.23	0.00	0.00	0.00	0.00	-85.17	-170.34	-207.39	-169.34	148.0	147.96	147.96	167.25
	L_{21}-U_{21}	4.47	-3.05	-51.54	-2.99	0.00	0.00	0.00	0.00	-85.17	-170.34	-207.39	-169.34	148.0	147.

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.80

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_Z Information

| Location | Member | ZZ Axis Moments from STAAD: Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) Start (k-in) | Pedestrian Load (Max) End (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Start (k-in) | Impact Pedestrian Load End (k-in) | ZZ Axis Moment Properties: Max. Pos. Mom. Start (k-in) | Max. Pos. Mom. End (k-in) | S_{bb} (in^3) | S_b (in^3) | S_T (in^3) | I (in^4) | I_{xx} (in^4) | Shape Factor f | M_p (k-in) | Formula 1.8 Term = F/S_{bb} | M_r (k-in) | Equivalent Mom. Factor a | $C_{b(LL)}$ | $C_{b(DL)}$ | YY Axis Moments from STAAD: Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) Start (k-in) | Pedestrian Load (Max) End (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Start (k-in) | Impact Pedestrian Load End (k-in) | YY Axis Moment Properties: Max. Pos. Mom. Start (k-in) | Max. Pos. Mom. End (k-in) | S_{bb} (in^3) | S_b (in^3) | S_T (in^3) | Z_T (in^3) | I_{yy} (in^4) | Shape Factor f | M_p (k-in) | P_{crit} (kip) | Formula 1.8 Term = F/S_{bb} | M_r (k-in) | Equivalent Mom. Factor a | $C_{b(LL)}$ | $C_{b(DL)}$ | Yield: Axial Portion | Yield: Moment Portion | Yield: Total | Pass | Tension: Axial Portion | Tension: Moment Portion | Tension: Total | Pass | Fracture: Axial Portion | Fracture: Moment Portion | Fracture: Total | Pass | Compression: Axial Portion | Compression: Moment Portion | Compression: Total | Pass |
|---|---|---|---

Moment (Start) - Al2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

M_7 Information

Location	Member	ZZ Axis Moments from STAAD: Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load (Max) Start (k-in)	Lane Reduction & Impact Live Load (Max) End (k-in)	Impact Pedestrian Load (Max) Start (k-in)	Impact Pedestrian Load (Max) End (k-in)	Max. Pos. Mom. Start (k-in)	Max. Pos. Mom. End (k-in)	S_{bb} (in^3)	S_b (in^3)	Z_z (in^3)	I (in^4)	I_{eff} (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F'c/S_{bb}	M_z (k-in)	YY Axis Moments from STAAD: Equivalent Mom. Factor a	C_m	C_{mb}	Dead Load (Max) Start (k-in)	Dead Load (Max) End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load (Max) Start (k-in)	Lane Reduction & Impact Live Load (Max) End (k-in)	Impact Pedestrian Load (Max) Start (k-in)	Impact Pedestrian Load (Max) End (k-in)	Max. Neg. Mom. Start (k-in)	Max. Neg. Mom. End (k-in)	S_{tt} (in^3)	S_t (in^3)	Z_y (in^3)	I_{yy} (in^4)	Tension: Shape Factor	Tension: M_p (k-in)	Tension: P_{yn} (kip)	Tension: Formula 1.8 Term * F'c/S_{tt}	Tension: M_y (k-in)	Tension: Equivalent Mom. Factor a	Tension: C_m	Tension: C_{mb}	Tension: Pass	Compression: Axial Member	Compression: Moment Pattern	Compression: Total	Compression: Pass	Yield: Axial Member	Yield: Moment Pattern	Yield: Total	Yield: Pass
Structure 1	L_0-L_1	-19.48	-91.69	1.75	-2.28	-0.69	0.71	0.30	-0.64	-0.11	0.13	18.90	-24.69	-7.41	7.69	3.54	-7.69	-1.37	1.50	11.14	-171.74	39.58	10.29	83.6	83.58	74.65	100.97	2577	1026.3	1.21	3332	0.99900394	2755.4	-0.065	0.57	0.537	39.17	129.34	-2.25	-8.26	0.09	0.32	0.46	1.68	-0.03	-0.11	-24.28	-89.23	0.93	3.40	5.48	20.16	-6.36	-1.34	15.17	55.90	46.64	49.96	128.3	128.29	121.63	141.18	626.8	1.10	4659	—	0.99805042	4225.3	0.271	0.71	0.71	Pass
	L_1-L_2	30.30	-116.56	0.52	-0.98	-0.65	2.32	0.00	0.00	-0.22	-0.91	51.57	-75.38	-7.21	23.61	-25.09	0.00	0.00	-2.66	-10.86	51.47	-314.36	24.20	-97.17	83.6	83.58	67.49	100.97	2577	1026.3	1.21	3332	0.99900394	2755.4	-0.163	0.53	0.53	169.27	-70.78	-11.20	6.02	1.91	-0.95	0.00	0.00	2.11	-0.99	-120.96	65.06	-10.30	0.00	0.00	25.32	-11.82	-42.02	68.94	264.82	-114.34	126.9	126.9	121.63	139.72	618.9	1.10	4609	—	0.99805042	4225.3	-0.432	0.43	0.43	Pass	0.248	0.151	0.40	Yes	0.151	0.099	0.26	Yes
	L_2-L_3	37.97	-78.01	0.27	-0.51	-0.54	1.94	0.00	0.00	-1.04	-2.27	73.85	-75.38	-11.48	33.93	29.56	-76.39	-11.48	33.93	2.57	-9.39	-12.47	-15.23	-98.56	-40.23	-299.2	-213.59	99.5	99.53	91.00	125.49	3409	1372.0	1.26	4141	0.99901186	3294.8	0.350	0.74	0.74	-139.55	-73.52	-138.38	4.41	0.99	-128.95	73.12	-3.39	5.37	-68.03	-15.97	0.00	-0.53	-21.17	11.63	-174.98	102.12	-63.37	-75.62	1.91	135.9	6220	—	0.99789195	5651.9	-0.971	0.21	0.21	Pass	0.222	0.080	0.30	Yes	0.132	0.050	0.19	Yes
	L_3-L_4	-50.69	-234.13	3.37	-4.44	-1.42	4.48	0.00	0.00	-0.72	-1.48	-0.09	-0.52	-2.11	7.75	8.68	-19.44	-2.11	7.75	8.68	-314.77	92.6	92.59	76.68	83.6	74.65	100.97	2577	1026.3	1.21	3332	0.99900394	2755.4	0.000	0.60	0.60	-66.40	-170.43	0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.36	-1.14	1.94	0.11	-0.11	-0.29	-53.63	2.29	-4.32	2.19	117.49	153.3	151.37	141.59	172.01	694.3	1.10	5620	—	0.99797795	5114.9	-0.391	0.44	0.44	Pass	0.561	0.094	0.66	Yes	0.333	0.059	0.39	Yes
	L_4-L_5	-2.17	-269.23	2.46	-4.55	-2.19	0.52	0.53	1.12	-0.84	0.05	25.55	-49.09	-23.66	5.59	6.36	13.39	-10.07	0.55	54.70	-495.35	54.09	362.12	104.6	104.58	95.61	136.57	4040	1678.1	1.31	4520	0.99902345	3448.5	0.120	0.65	0.65	141.01	-149.73	0.12	-0.26	-1.96	0.21	-0.38	-0.37	1.33	-0.87	1.25	-2.78	-2.24	-4.33	-4.44	15.92	-10.45	16.93	-250.66	137.12	-58.21	23.13	158.6	784.3	1.10	7464	—	0.99778998	6850.4	-0.927	0.23	0.23	Pass	0.744	0.635	0.101	0.74	Yes
	L_5-L_6	-2.23	-54.79	2.83	-2.04	-1.67	1.82	0.62	0.00	-0.97	-1.26	0.12	8.38	-0.64	-2.87	2.32	0.00	0.00	0.00	7.15	-4.81	-10.25	4.12	-58.80	25.56	-48.80	13.05	10.62	10.62	9.70	14.51	1.49	1.49

Columbia Parkway (HAM-471-0025).

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane

Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information | M_7 Information

| Location | Member | ZZ Axis Moments from STAAD: Dead Load Start (k-ft) | Dead Load End (k-ft) | Live Load (Max) Start (k-ft) | Live Load (Max) End (k-ft) | Pedestrian Load (Max) Start (k-ft) | Pedestrian Load (Min) End (k-ft) | Lane Reduction & Impact Live Load Start (k-ft) | Lane Reduction & Impact Live Load End (k-ft) | Impact Pedestrian Load Start (k-ft) | Impact Pedestrian Load End (k-ft) | Max. Pos. Mom. Start (k-ft) | Max. Pos. Mom. End (k-ft) | S_{req} (in^3) | S_x (in^3) | Z_x (in^3) | J (in^4) | I_{xx} (in^4) | Shape Factor | M_p (k-in) | Formula 1.8 Term * F_y/S_x | M_y (k-in) | Equivalent Mom. Factor | | YY Axis Moments from STAAD: Dead Load (k-ft) | Live Load (Max) Start (k-ft) | Live Load (Max) End (k-ft) | Pedestrian Load (Max) Start (k-ft) | Pedestrian Load (Min) End (k-ft) | Lane Reduction & Impact Live Load Start (k-ft) | Lane Reduction & Impact Live Load End (k-ft) | Impact Pedestrian Load Start (k-ft) | Impact Pedestrian Load End (k-ft) | Max. Neg. Mom. Start (k-ft) | Max. Neg. Mom. End (k-ft) | S_{req} (in^3) | S_x (in^3) | Z_y (in^3) | I_{yy} (in^4) | Shape Factor | M_p (k-in) | P_{crit} (kips) | Formula 1.8 Term * F_y/S_x | M_n (k-in) | Equivalent Mom. Factor | | Yield: Axial Analysis | Yield: Moment Analysis | Yield: Total | Yield: Pass | Tension: Axial Analysis | Tension: Moment Analysis | Tension: Total | Tension: Pass | Buckle: Axial Analysis | Buckle: Moment Analysis | Buckle: Total | Buckle: Pass | Compression: Axial Analysis | Compression: Moment Analysis | Compression: Total | Compression: Pass |
|---|---|---|---

Moment (Start) - AI2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

M_y Information

| Location | | Member | ZZ Axis Moments from STAAD: Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) Start (k-in) | Pedestrian Load (Max) End (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Max (k-in) | Impact Pedestrian Load Min (k-in) | Max. Pos. Mom. Start (k-in) | Max. Pos. Mom. End (k-in) | S_{top} (in^3) | S_{bot} (in^3) | Z_z (in^3) | I_z (in^4) | Shape Factor | M_p (k-in) | Formula 1.8 Term * F_y/S_x | M_z (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor C_{mx} | Equivalent Mom. Factor C_{mz} | YY Axis Moments from STAAD: Dead Load Start (k-in) | Dead Load End (k-in) | Live Load (Max) Start (k-in) | Live Load (Max) End (k-in) | Pedestrian Load (Max) Start (k-in) | Pedestrian Load (Max) End (k-in) | Lane Reduction & Impact Live Load Start (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Max (k-in) | Impact Pedestrian Load Min (k-in) | Max. Pos. Mom. Start (k-in) | Max. Pos. Mom. End (k-in) | S_{top} (in^3) | S_{bot} (in^3) | Z_y (in^3) | I_{yy} (in^4) | Shape Factor | M_p (k-in) | r_{min} (in) | Formula 1.8 Term * F_y/S_y | M_y (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor C_{my} | Equivalent Mom. Factor C_{mz} | Tension: Axial Stress (ksi) | Tension: Moment Stress (ksi) | Tension: Pass | Fracture: Axial Stress (ksi) | Fracture: Moment Stress (ksi) | Fracture: Total | Fracture: Pass | Compression: Axial Stress (ksi) | Compression: Moment Stress (ksi) | Compression: Pass | Buckle: Axial Stress (ksi) | Buckle: Moment Stress (ksi) | Buckle: Total | Buckle: Pass | Yield: Axial Stress (ksi) | Yield: Moment Stress (ksi) | Yield: Total | Yield: Pass |
|---|---|---|---

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression																Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield															
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass												
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																												
North Truss - Upper Chord	Structure 1	U_0 - U_1	-----	-596.75	5	-231	-583	-568	60	178	-103	-136	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.182	1.00	Yes	0.805	0.139	0.95	Yes	1.00	**7.41**
		U_1 - U_2	76.15	-596.23	-54	117	-158	-621	-7	-7	-16	-153	0.087	0.173	0.27	Yes	0.060	0.119	0.18	Yes	0.811	0.180	1.00	Yes	0.804	0.148	0.96	Yes	1.00	**2.58**
		U_2 - U_3	187.62	-637.28	-107	305	-454	-299	10	26	-26	129	0.215	0.130	0.35	Yes	0.145	0.085	0.23	Yes	0.867	0.128	1.00	Yes	0.859	0.108	0.97	Yes	1.00	**2.39**
		U_3 - U_4	358.28	-559.86	84	318	-390	-616	5	38	156	61	0.411	0.173	0.59	Yes	0.282	0.118	0.41	Yes	0.762	0.233	1.00	Yes	0.755	0.146	0.91	Yes	1.00	**2.36**
		U_4 - U_5	380.27	-583.27	139	311	-871	-148	21	-31	93	-51	0.436	0.223	0.66	Yes	0.299	0.153	0.46	Yes	0.794	0.195	0.99	Yes	0.787	0.207	1.00	Yes	1.00	**2.48**
		U_5 - U_6	720.06	-359.50	283	497	-451	266	-157	-78	247	-287	0.825	0.166	1.00	Yes	0.557	0.109	0.67	Yes	0.489	0.145	0.64	Yes	0.485	0.118	0.61	Yes	1.00	**3.33**
		U_6 - U_7	894.37	-----	395	232	-331	25	-318	-132	385	-118	0.855	0.137	1.00	Yes	0.598	0.094	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.06**
		U_7 - U_8	990.40	-----	39	1147	-605	1725	-454	24	-2	-373	0.686	0.308	1.00	Yes	0.479	0.210	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.64**
		U_8 - U_9	857.69	-----	1453	-420	691	-168	-435	-91	-237	-120	0.703	0.297	1.00	Yes	0.481	0.202	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.85**
		U_9 - U_{10}	739.30	-----	495	-15	89	57	-263	530	-44	149	0.802	0.196	1.00	Yes	0.543	0.132	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.99**
		U_{10} - U_{11}	-----	-374.87	1856	-2304	131	-230	129	428	120	84	-----	-----	-----	-----	-----	-----	-----	-----	0.483	0.321	0.81	Yes	0.478	0.516	1.00	Yes	1.00	**14.45**
		U_{11} - U_{12}	647.41	-823.75	717	194	-32	-787	-23	334	595	992	0.516	0.249	0.77	Yes	0.350	0.167	0.52	Yes	0.780	0.211	1.00	Yes	0.773	0.130	0.91	Yes	1.00	**8.13**
		U_{12} - U_{13}	-----	-1275.00	9	-234	-193	-574	346	206	538	331	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.133	1.00	Yes	0.852	0.079	0.94	Yes	1.00	**2.11**
		U_{13} - U_{14}	-----	-1350.08	-154	-389	-461	-1405	225	177	383	502	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.213	1.00	Yes	0.774	0.155	0.93	Yes	1.00	**1.69**
		U_{14} - U_{15}	-----	-1349.95	-280	-254	-1310	-604	213	29	589	169	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.210	1.00	Yes	0.774	0.144	0.92	Yes	1.00	**1.68**
		U_{15} - U_{16}	-----	-1485.63	-143	-431	-557	-797	79	36	431	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.136	1.00	Yes	0.852	0.088	0.94	Yes	1.00	**2.06**
		U_{16} - U_{17}	-----	-1426.10	-329	-189	-1099	-403	156	-50	604	57	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.170	1.00	Yes	0.818	0.121	0.94	Yes	1.00	**2.34**
		U_{17} - U_{18}	-----	-1105.61	-203	-80	-676	106	-14	-62	462	-58	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.122	1.00	Yes	0.865	0.110	0.98	Yes	1.00	**2.46**
		U_{18} - U_{19}	-----	-735.58	-191	-74	-712	-38	15	-116	464	-278	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.156	1.00	Yes	0.828	0.143	0.98	Yes	1.00	**2.64**
		U_{19} - U_{20}	-----	-469.51	-237	112	-1546	2338	-117	-6	415	-1350	-----	-----	-----	-----	-----	-----	-----	-----	0.533	0.333	0.87	Yes	0.528	0.470	1.00	Yes	1.00	**5.71**
	Structure 2	U_0 - U_1	-----	-644.87	361	-834	-433	-1257	90	95	-46	-113	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.225	1.00	Yes	0.762	0.213	0.98	Yes	1.00	**8.15**
		U_1 - U_2	-----	-885.43	48	-888	-56	-378	-33	-151	69	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.135	1.00	Yes	0.855	0.135	0.99	Yes	1.00	**3.01**
		U_2 - U_3	-----	-1159.61	-64	-777	-183	-1165	166	826	-101	259	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.168	1.00	Yes	0.823	0.119	0.95	Yes	1.00	**4.01**
		U_3 - U_4	-----	-1454.49	-401	-372	-804	-1056	261	367	173	131	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.157	1.00	Yes	0.828	0.094	0.93	Yes	1.00	**2.24**
		U_4 - U_5	-----	-1583.99	-418	-397	-841	-1421	370	124	225	134	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.173	1.00	Yes	0.813	0.118	0.94	Yes	1.00	**2.07**
		U_5 - U_6	-----	-1644.98	-392	71	-1152	-772	182	-247	264	378	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.143	1.00	Yes	0.845	0.095	0.95	Yes	1.00	**1.96**
		U_6 - U_7	-----	-1397.74	-260	-82	-958	-1434	-152	-197	337	135	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.192	1.00	Yes	0.796	0.128	0.93	Yes	1.00	**1.60**
		U_7 - U_8	-----	-1403.37	-179	-155	-1527	-823	-114	-192	205	52	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.185	1.00	Yes	0.799	0.136	0.94	Yes	1.00	**1.61**
		U_8 - U_9	-----	-1280.91	-243	159	-964	-401	-109	-208	312	-229	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.121	1.00	Yes	0.869	0.102	0.98	Yes	1.00	**1.80**
		U_9 - U_{10}	187.34	-969.98	-49	375	-1136	-129	-149	-157	259	-50	0.137	0.166	0.31	Yes	0.093	0.113	0.21	Yes	0.842	0.151	1.00	Yes	0.837	0.138	0.98	Yes	1.00	**1.90**
		U_{10} - U_{11}	659.17	-829.45	292	470	-1090	-97	-217	-183	335	-135	0.557	0.195	0.76	Yes	0.379	0.126	0.51	Yes	0.829	0.170	1.00	Yes	0.824	0.154	0.98	Yes	1.00	**2.92**
		U_{11} - U_{12}	934.29	-291.25	313	593	-1082	389	-388	-145	427	-112	0.789	0.205	1.00	Yes	0.530	0.137	0.67	Yes	0.291	0.121	0.42	Yes	0.289	0.153	0.45	Yes	1.00	**3.22**
		U_{12} - U_{13}	1261.51	-----	555	159	-754	-302	-474	-411	422	-451	0.852	0.140	1.00	Yes	0.607	0.096	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.79**
		U_{13} - U_{14}	1212.13	-----	25	2125	-1261	3377	-787	-397	-221	-1208	0.596	0.395	1.00	Yes	0.422	0.260	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.07**
		U_{14} - U_{15}	1276.07	-----	3188	-318	1302	67	-1036	-625	-816	-608	0.627	0.366	1.00	Yes	0.444	0.241	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.94**
		U_{15} - U_{16}	1473.53	-----	277	369	-10	-347	-518	361	-298	689	0.891	0.100	1.00	Yes	0.634	0.069	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.03**
		U_{16} - U_{17}	1094.88	-----	1386	-354	353	33	69	137	66	72	0.807	0.189	1.00	Yes	0.537	0.124	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		U_{17} - U_{18}	572.62	-----	1247	-1557	169	-351	-9	1057	437	592	0.575	0.419	1.00	Yes	0.383	0.277	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.93**
		U_{18} - U_{19}	849.38	-8.64	540	442	129	-166	54	111	346	306	0.853	0.142	1.00	Yes	0.559	0.091	0.66	Yes	0.010	0.148	0.16	Yes	0.010	0.092	0.11	Yes	1.00	**3.51**
		U_{19} - U_{20}	876.40	-732.00	527	469	-269	-590	-43	-127	149	455	0.822	0.156	0.98	Yes	0.545	0.102	0.65	Yes	0.813	0.180	1.00	Yes	0.808	0.094	0.91	Yes	1.00	**4.01**
		U_{20} - U_{21}	843.23	-916.16	377	378	-453	-671	-192	-112	336	238	0.654	0.134	0.79	Yes	0.458	0.088	0.55	Yes	0.842	0.155	1.00	Yes	0.836	0.097	0.94	Yes	1.00	**4.12**
		U_{21} - U_{22}	311.20	-833.42	75	153	-509	-1120	-29	30	185	340	0.241	0.199	0.45	Yes	0.171	0.134	0.31	Yes	0.766	0.228	1.00	Yes	0.761	0.162	0.93	Yes	1.00	**1.86**
		U_{22} - U_{23}	311.78	-834.67	162	55	-1105	-506	-3	-10	406	83	0.242	0.204	0.45	Yes	0.171	0.137	0.31	Yes	0.767	0.226	1.00	Yes	0.762	0.160	0.93	Yes	1.00	**1.86**
		U_{23} - U_{24}	936.23	-889.99	413	402	-943	-291	-215	-28	372	-49	0.726	0.177	0.91	Yes	0.508	0.115	0.63	Yes	0.818	0.173	1.00	Yes	0.812	0.137	0.95	Yes	1.00	**4.60**
		U_{24} - U_{25}	530.34	-796.31	300	305	-694	-99	-134	-27	392	-136	0.497	0.164	0.67	Yes	0.330	0.108	0.44	Yes	0.884	0.116	1.00	Yes	0.879	0.111	0.99	Yes	1.00	**2.54**
		U_{25} - U_{26}	814.83	-686.58	414	456	-744	373	-261	-2	302	-249	0.818	0.171	0.99	Yes	0.537	0.109	0.65	Yes	0.816	0.182	1.00	Yes	0.811	0.126	0.94	Yes	1.00	**3.56**
		U_{26} - U_{27}	812.25	-----	451	319	-821	664	-300	0	163	-187	0.815	0.183	1.00	Yes	0.543	0.121	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.18**
		U_{27} - U_{28}	1127.85	-----	426	436	-725	911	-460	77	313	-326	0.831	0.163	1.00	Yes	0.553	0.107	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.52**
		U_{28} - U_{29}	1452.75	-----	639	47	-641	-133	-574	-198	273	-481	0.878	0.121	1.00	Yes	0.625	0.083	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.11**
		U_{29} - U_{30}	1227.03	-----	184	1280	-805	3592	-340	-15	-149	-928	0.603	0.396	1.00	Yes	0.427	0.260	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.32**
		U_{30} - U_{31}	1287.60	-----	3220	-590	1068	-116	-897	-448	-314	-195	0.633	0.359	1.00	Yes	0.448	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		U_{31} - U_{32}	1147.05	-----	314	1001	-259	-731	-807	-217	676	1020	0.775	0.223	1.00	Yes	0.552	0.154	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.56**
		U_{32} - U_{33}	907.90	-80.91	993	-1113	106	-594	185	315	558	582	0.767	0.228	1.00	Yes	0.515	0.152	0.67	Yes	0.081	0.139	0.22	Yes	0.080	0.157	0.24	Yes	1.00	**4.46**
		U_{33} - U_{34}	970.50	-373.76	526	422	-213	-662	-37	189	492	670	0.820	0.175	1.00	Yes	0.558	0.116	0.68	Yes	0.374	0.164	0.54	Yes	0.371	0.093	0.47	Yes	1.00	**3.87**
		U_{34} - U_{35}	1109.29	-837.37	824	471	-369	-886	-15	46	678	519	0.814	0.181	1.00	Yes	0.551	0.122	0.68	Yes	0.727	0.172	0.90	Yes	0.723	0.108	0.84	Yes	1.00	**5.34**
		U_{35} - U_{36}	207.40	-1241.29	211	-105	-312	-902	97	85	359	435	0.120	0.132	0.26	Yes	0.084	0.087	0.18	Yes	0.848	0.145	1.00	Yes	0.842	0.096	0.94	Yes	1.00	**2.25**
		U_{36} - U_{37}	-----	-1378.35	-40	52	-744	-1564	84	-3	406	267	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.201	1.00	Yes	0.785	0.139	0.93	Yes	1.00	**1.98**
		U_{37} - U_{38}	-----	-1378.62	143	-128	-1455	-952	41	22	323	231	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.203	1.00	Yes	0.785	0.130	0.92	Yes	1.00	**1.98**
		U_{38} - U_{39}	-----	-1634.37	186	-265	-728	-1263	129	-27	539	-69	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.148	1.00	Yes	0.839	0.105	0.95	Yes	1.00	**2.31**
		U_{39} - U_{40}	-----	-1563.48	-156	-328	-1524	-943	26	-13	442	92	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.185	1.00	Yes	0.803	0.126	0.93	Yes	1.00	**2.33**
		U_{40} - U_{41}	-----	-1459.55	-203	-330	-1167	-799	54	-98	393	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.154	1.00	Yes	0.831	0.104	0.94	Yes	1.00	**2.51**
		U_{41} - U_{42}	-----	-1229.23	-98	-158	-1147	-2	-71	-80	396	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.878	0.120	1.00	Yes	0.872	0.117	0.99	Yes	1.00	**2.88**
		U_{42} - U_{43}	-----	-858.63	-93	-70	-894	-190	-33	-71	331	-310	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.158	1.00	Yes	0.829	0.136	0.97	Yes	1.00	**3.07**
		U_{43} - U_{44}	-----	-531.97	55	-317	-1738	2172	-55	73	151	-1060	-----	-----	-----	-----	-----	-----	-----	-----	0.632	0.241	0.88	Yes	0.628	0.369	1.00	Yes	1.00	**4.83**
	Structure 3	U_0 - U_1	-----	-680.04	518	-791	-318	-1117	124	247	-167	-247	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.226	1.00	Yes	0.765	0.225	0.99	Yes	1.00	**7.93**
		U_1 - U_2	-----	-753.19	140	-663	-80	-345	-67	-216	120	-25	-----	-----	-----	-----	-----	-----	-----	-----	0.855	0.136	1.00	Yes	0.847	0.133	0.99	Yes	1.00	**2.93**
		U_2 - U_3	-----	-1101.05	37	-662	-80	-157	-119	184	-51	342	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.122	1.00	Yes	0.862	0.108	0.97	Yes	1.00	**2.73**
		U_3 - U_4	-----	-1424.86	-164	-284	-427	-971	336	521	229	252	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.165	1.00	Yes	0.817	0.107	0.93	Yes	1.00	**3.05**
		U_4 - U_5	-----	-1503.47	-367	-128	-700	-478	474	140	314	172	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.125	1.00	Yes	0.862	0.077	0.94	Yes	1.00	**2.74**
		U_5 - U_6	-----	-1366.96	-187	-281	-582	-1403	141	-149	260	314	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.205	1.00	Yes	0.784	0.155	0.94	Yes	1.00	**1.82**
		U_6 - U_7	-----	-1373.50	-380	-107	-1469	-454	-89	-186	396	56	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.196	1.00	Yes	0.787	0.162	0.95	Yes	1.00	**1.83**
		U_7 - U_8	-----	-1320.76	-162	8	-516	-314	-61	-179	288	-269	-----	-----	-----	-----	-----	-----	-----	-----	0.893	0.101	1.00	Yes	0.882	0.071	0.96	Yes	1.00	**2.16**
		U_8 - U_9	-----	-927.05	-95	187	-728	10	-36	-155	266	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.878	0.111	0.99	Yes	0.870	0.121	1.00	Yes	1.00	**1.92**
		U_9 - U_{10}	212.97	-640.02	-49	257	-808	202	-113	-110	222	-177	0.231	0.217	0.45	Yes	0.154	0.139	0.30	Yes	0.824	0.143	0.97	Yes	0.817	0.181	1.00	Yes	1.00	**2.58**
		U_{10} - U_{11}	744.05	-219.05	344	243	-567	267	-266	-162	356	-407	0.807	0.192	1.00	Yes	0.547	0.129	0.68	Yes	0.282	0.078	0.37	Yes	0.280	0.127	0.41	Yes	1.00	**4.55**
		U_{11} - U_{12}	791.53	-----	-59	982	-800	1572	-420	-86	-20	-715	0.649	0.351	1.00	Yes	0.444	0.239	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		U_{12} - U_{13}	993.49	-----	1607	-260	554	12	-628	-370	-276	-270	0.688	0.307	1.00	Yes	0.480	0.210	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.26**
		U_{13} - U_{14}	918.88	-----	265	170	67	193	-425	117	-147	-5	0.879	0.115	1.00	Yes	0.614	0.079	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.83**
		U_{14} - U_{15}	529.00	-29.60	1340	-276	164	-199	-47	147	252	415	0.606	0.389	1.00	Yes	0.409	0.254	0.67	Yes	0.040	0.348	0.39	Yes	0.040	0.319	0.36	Yes	1.00	**8.44**
		U_{15} - U_{16}	505.07	-561.59	395	278	-143	-831	-70	136	91	457	0.579	0.275	0.86	Yes	0.397	0.188	0.59	Yes	0.764	0.227	1.00	Yes	0.757	0.198	0.96	Yes	1.00	**2.89**
		U_{16} - U_{17}	505.06	-572.38	465	177	-618	-407	59	81	446	216	0.579	0.222	0.81	Yes	0.397	0.152	0.55	Yes	0.779	0.216	1.00	Yes	0.772	0.147	0.92	Yes	1.00	**2.92**
		U_{17} - U_{18}	303.48	-618.10	416	-37	-290	-481	-96	65	317	-19	0.348	0.168	0.52	Yes	0.235	0.110	0.35	Yes	0.841	0.155	1.00	Yes	0.833	0.114	0.95	Yes	1.00	**2.76**
		U_{18} - U_{19}	145.80	-545.21	231	-28	-632	-333	-96	40	514	-17	0.167	0.237	0.41	Yes	0.115	0.162	0.28	Yes	0.742	0.255	1.00	Yes	0.735	0.150	0.89	Yes	1.00	**2.67**
		U_{19} - U_{20}	89.17	-525.37	296	-458	-1091	1217	-215	239	415	-760	0.102	0.418	0.52	Yes	0.070	0.286	0.36	Yes	0.715	0.161	0.88	Yes	0.708	0.289	1.00	Yes	1.00	**4.93**

Moment (Start) AI Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

| | | | Vehicle | Pedestrian | Axial Force | | ZZ Axis Bending | | | | YY Axis Bending | | | | Tension | | | | | | | Compression | | | | | | |

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
		Vehicle	Pedestrian	Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
				(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Verticals	Structure 1	$U_0 - L_0$		-----	-281.57	-43	70	-176	230	-64	-21	41	13	-----	-----	-----	-----	-----	-----	-----	-----	0.697	0.149	0.85	Yes	0.658	0.342	1.00	Yes	1.00	**1.63**
		$U_1 - L_1$		60.64	-336.65	53	-42	-201	223	-13	-27	-82	6	0.109	0.309	0.42	Yes	0.060	0.170	0.24	Yes	0.736	0.102	0.84	Yes	0.712	0.286	1.00	Yes	1.00	**3.13**
		$U_2 - L_2$		159.56	-307.34	137	-153	-220	273	143	42	59	63	0.287	0.391	0.68	Yes	0.158	0.215	0.38	Yes	0.672	0.143	0.82	Yes	0.650	0.350	1.00	Yes	1.00	**4.66**
		$U_3 - L_3$		286.37	-264.79	225	-263	-257	298	343	102	202	141	0.515	0.481	1.00	Yes	0.283	0.264	0.55	Yes	0.580	0.182	0.77	Yes	0.560	0.381	0.95	Yes	1.00	**7.36**
		$U_4 - L_4$		-----	-352.21	194	-195	65	-64	473	166	-5	-23	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.182	0.96	Yes	0.745	0.249	1.00	Yes	1.00	**3.02**
		$U_5 - L_5$		-----	-419.14	239	-265	75	-91	96	63	-60	-54	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.108	0.87	Yes	0.723	0.269	1.00	Yes	1.00	**1.95**
		$U_6 - L_6$		-----	-472.10	212	-220	84	-79	777	234	-199	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.755	0.239	1.00	Yes	0.713	0.214	0.93	Yes	1.00	**1.63**
		$U_7 - L_7$		-----	-405.31	276	-298	128	-143	170	60	-137	38	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.141	0.87	Yes	0.661	0.330	1.00	Yes	1.00	**1.36**
		$U_8 - L_8$		-----	-1204.54	412	-501	-341	399	1105	334	-981	-293	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.130	1.00	Yes	0.835	0.093	0.93	Yes	1.00	**3.71**
		$U_9 - L_9$		-----	-629.03	-176	206	-398	454	-249	-99	-235	-172	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.131	0.91	Yes	0.728	0.264	1.00	Yes	1.00	**1.98**
		$U_{10} - L_{10}$		-----	-734.74	-124	106	-332	313	-710	-387	-554	-445	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.201	1.00	Yes	0.755	0.185	0.95	Yes	1.00	**2.41**
		$U_{11} - L_{11}$		-----	-661.25	-144	204	-385	488	-312	-242	-377	-372	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.145	0.94	Yes	0.770	0.227	1.00	Yes	1.00	**2.38**
		$U_{12} - L_{12}$		-----	-531.76	-125	122	-310	315	-118	-112	-109	-190	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.116	0.89	Yes	0.730	0.269	1.00	Yes	1.00	**2.19**
		$U_{13} - L_{13}$		-----	-366.86	-79	99	-232	259	-44	4	-1	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.742	0.098	0.84	Yes	0.703	0.296	1.00	Yes	1.00	**1.75**
		$U_{14} - L_{14}$		-----	-366.48	-44	52	-137	158	-36	-16	448	67	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.175	1.00	Yes	0.775	0.202	0.98	Yes	1.00	**3.46**
		$U_{15} - L_{15}$		88.84	-292.53	269	-290	-63	60	281	201	-67	-48	0.160	0.453	0.62	Yes	0.088	0.249	0.34	Yes	0.656	0.217	0.88	Yes	0.619	0.371	1.00	Yes	1.00	**4.30**
		$U_{16} - L_{16}$		-----	-304.99	212	-225	24	-27	1088	-54	-80	-100	-----	-----	-----	-----	-----	-----	-----	-----	0.687	0.303	1.00	Yes	0.645	0.288	0.94	Yes	1.00	**2.25**
		$U_{17} - L_{17}$		-----	-435.22	221	-242	56	-71	201	-146	-120	-108	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.111	0.93	Yes	0.751	0.245	1.00	Yes	1.00	**1.84**
		$U_{18} - L_{18}$		-----	-535.55	419	-437	137	-143	213	-205	-130	-115	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.090	0.88	Yes	0.745	0.247	1.00	Yes	1.00	**2.01**
		$U_{19} - L_{19}$		-----	-630.98	555	-535	164	-163	248	-56	-113	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.114	0.91	Yes	0.734	0.258	1.00	Yes	1.00	**2.29**
		$U_{20} - L_{20}$		-----	-560.11	273	-461	159	-258	530	69	22	3	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.220	1.00	Yes	0.685	0.222	0.91	Yes	1.00	**1.48**
	Structure 2	$U_0 - L_0$		-----	-659.59	-144	188	-456	560	-73	-12	27	5	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.119	0.95	Yes	0.739	0.253	1.00	Yes	1.00	**2.26**
		$U_1 - L_1$		-----	-722.83	-94	102	-477	511	-121	-28	-102	22	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.077	0.91	Yes	0.775	0.217	1.00	Yes	1.00	**2.85**
		$U_2 - L_2$		-----	-593.53	-82	92	-458	475	-95	-46	-8	-1	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.079	0.88	Yes	0.756	0.243	1.00	Yes	1.00	**2.51**
		$U_3 - L_3$		-----	-493.28	-42	50	-222	240	99	-46	-43	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.079	0.92	Yes	0.774	0.218	1.00	Yes	1.00	**2.16**
		$U_4 - L_4$		-----	-341.58	4	4	-203	210	284	85	-84	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.162	0.94	Yes	0.723	0.268	1.00	Yes	1.00	**2.29**
		$U_5 - L_5$		101.55	-335.00	76	-72	-196	227	315	189	-49	-36	0.183	0.381	0.57	Yes	0.100	0.209	0.31	Yes	0.757	0.211	0.97	Yes	0.709	0.290	1.00	Yes	1.00	**3.23**
		$U_6 - L_6$		269.13	-281.07	171	-191	-298	311	361	252	163	-37	0.484	0.502	0.99	Yes	0.266	0.276	0.55	Yes	0.633	0.244	0.88	Yes	0.595	0.397	1.00	Yes	1.00	**6.67**
		$U_7 - L_7$		-----	-268.92	279	-323	52	-59	1004	200	37	6	-----	-----	-----	-----	-----	-----	-----	-----	0.607	0.392	1.00	Yes	0.569	0.413	0.99	Yes	1.00	**9.25**
		$U_8 - L_8$		-----	-455.64	370	-388	115	-127	126	-58	-62	-112	-----	-----	-----	-----	-----	-----	-----	-----	0.661	0.111	0.78	Yes	0.656	0.339	1.00	Yes	1.00	**2.72**
		$U_9 - L_9$		-----	-697.36	549	-584	199	-199	1383	171	-105	-119	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.201	0.98	Yes	0.747	0.248	1.00	Yes	1.00	**2.82**
		$U_{10} - L_{10}$		-----	-790.04	550	-585	180	-185	339	-172	-131	-93	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.101	0.89	Yes	0.739	0.258	1.00	Yes	1.00	**2.81**
		$U_{11} - L_{11}$		-----	-810.36	509	-530	183	-184	139	-174	-158	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.098	0.92	Yes	0.758	0.234	1.00	Yes	1.00	**2.40**
		$U_{12} - L_{12}$		-----	-883.26	517	-530	145	-115	235	-44	-127	32	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.106	0.96	Yes	0.766	0.227	1.00	Yes	1.00	**2.44**
		$U_{13} - L_{13}$		-----	-678.09	546	-539	215	-219	791	99	-137	8	-----	-----	-----	-----	-----	-----	-----	-----	0.756	0.239	1.00	Yes	0.654	0.261	0.92	Yes	1.00	**1.85**
		$U_{14} - L_{14}$		-----	-1109.62	655	-626	-307	283	1039	656	-639	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.183	1.00	Yes	0.736	0.116	0.86	Yes	1.00	**3.23**
		$U_{15} - L_{15}$		-----	-701.98	-76	89	-671	666	-315	34	-32	60	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.164	0.95	Yes	0.677	0.321	1.00	Yes	1.00	**3.36**
		$U_{16} - L_{16}$		-----	-704.69	-61	33	-466	415	-822	-248	-603	-241	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.184	1.00	Yes	0.755	0.198	0.96	Yes	1.00	**2.41**
		$U_{17} - L_{17}$		-----	-639.42	-118	108	-542	532	-482	-306	-298	-302	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.156	0.95	Yes	0.744	0.252	1.00	Yes	1.00	**2.14**
		$U_{18} - L_{18}$		-----	-604.65	-112	100	-411	436	-273	-245	68	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.118	0.93	Yes	0.770	0.223	1.00	Yes	1.00	**1.92**
		$U_{19} - L_{19}$		-----	-478.48	-73	71	-286	289	-244	-148	-123	-150	-----	-----	-----	-----	-----	-----	-----	-----	0.720	0.120	0.85	Yes	0.714	0.278	1.00	Yes	1.00	**2.35**
		$U_{20} - L_{20}$		-----	-382.83	-42	40	-215	226	-201	-95	-20	-99	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.130	0.92	Yes	0.733	0.258	1.00	Yes	1.00	**2.42**
		$U_{21} - L_{21}$		-----	-316.01	-29	30	-240	257	-84	-16	44	3	-----	-----	-----	-----	-----	-----	-----	-----	0.714	0.116	0.83	Yes	0.669	0.328	1.00	Yes	1.00	**2.75**
		$U_{22} - L_{22}$		-----	-285.96	129	-145	-169	198	1047	298	945	267	-----	-----	-----	-----	-----	-----	-----	-----	0.644	0.353	1.00	Yes	0.605	0.254	0.86	Yes	1.00	**10.41**
		$U_{23} - L_{23}$		-----	-302.89	259	-274	14	-16	233	158	-99	-3	-----	-----	-----	-----	-----	-----	-----	-----	0.684	0.172	0.86	Yes	0.641	0.351	1.00	Yes	1.00	**3.40**
		$U_{24} - L_{24}$		-----	-339.69	198	-215	43	-48	1000	95	-70	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.696	0.299	1.00	Yes	0.651	0.245	0.90	Yes	1.00	**2.06**
		$U_{25} - L_{25}$		-----	-469.32	309	-305	53	-49	383	-30	-92	10	-----	-----	-----	-----	-----	-----	-----	-----	0.706	0.120	0.83	Yes	0.701	0.297	1.00	Yes	1.00	**2.24**
		$U_{26} - L_{26}$		-----	-566.57	500	-528	72	-63	426	-40	-150	39	-----	-----	-----	-----	-----	-----	-----	-----	0.755	0.115	0.87	Yes	0.722	0.270	1.00	Yes	1.00	**2.42**
		$U_{27} - L_{27}$		-----	-629.79	561	-564	81	-79	249	156	-186	53	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.094	0.88	Yes	0.733	0.262	1.00	Yes	1.00	**2.17**
		$U_{28} - L_{28}$		-----	-683.38	477	-454	55	-34	1116	157	-231	73	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.206	1.00	Yes	0.732	0.202	0.94	Yes	1.00	**2.12**
		$U_{29} - L_{29}$		-----	-694.08	664	-653	101	-112	482	103	-173	36	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.217	1.00	Yes	0.669	0.317	0.99	Yes	1.00	**2.81**
		$U_{30} - L_{30}$		-----	-1153.96	717	-709	-703	638	1377	114	-1008	225	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.132	1.00	Yes	0.780	0.129	0.91	Yes	1.00	**5.00**
		$U_{31} - L_{31}$		-----	-743.84	-97	97	-590	586	-315	-19	-45	35	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.164	1.00	Yes	0.717	0.282	1.00	Yes	1.00	**2.95**
		$U_{32} - L_{32}$		-----	-839.85	-79	53	-441	400	-688	-264	-482	-234	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.190	1.00	Yes	0.728	0.189	0.92	Yes	1.00	**2.60**
		$U_{33} - L_{33}$		-----	-834.57	-119	105	-409	424	-431	-344	-34	-272	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.144	1.00	Yes	0.787	0.190	0.98	Yes	1.00	**2.53**
		$U_{34} - L_{34}$		-----	-809.86	-123	121	-506	543	-198	-249	-223	-391	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.127	0.93	Yes	0.757	0.240	1.00	Yes	1.00	**3.41**
		$U_{35} - L_{35}$		-----	-705.70	-144	147	-516	554	82	38	-32	-102	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.073	0.86	Yes	0.756	0.235	1.00	Yes	1.00	**3.13**
		$U_{36} - L_{36}$		-----	-471.78	-82	92	-338	356	89	71	104	35	-----	-----	-----	-----	-----	-----	-----	-----	0.684	0.101	0.79	Yes	0.680	0.311	1.00	Yes	1.00	**2.57**
		$U_{37} - L_{37}$		-----	-258.35	-42	50	-295	348	74	31	656	158	-----	-----	-----	-----	-----	-----	-----	-----	0.584	0.325	0.91	Yes	0.547	0.445	1.00	Yes	1.00	**8.83**
		$U_{38} - L_{38}$		300.63	-177.52	258	-255	-230	254	432	374	218	119	0.541	0.454	1.00	Yes	0.297	0.250	0.55	Yes	0.399	0.190	0.59	Yes	0.376	0.329	0.71	Yes	1.00	**8.38**
		$U_{39} - L_{39}$		94.16	-278.48	158	-185	-82	80	1247	51	61	0	0.169	0.597	0.77	Yes	0.093	0.328	0.43	Yes	0.629	0.366	1.00	Yes	0.589	0.236	0.83	Yes	1.00	**2.99**
		$U_{40} - L_{40}$		33.85	-340.29	215	-218	-30	24	306	-81	14	-22	0.061	0.367	0.43	Yes	0.033	0.202	0.24	Yes	0.772	0.123	0.90	Yes	0.720	0.279	1.00	Yes	1.00	**2.42**
		$U_{41} - L_{41}$		-----	-485.16	239	-253	12	-16	205	-121	10	-20	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.086	0.92	Yes	0.761	0.230	1.00	Yes	1.00	**2.22**
		$U_{42} - L_{42}$		-----	-585.17	470	-484	34	-43	269	-168	12	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.076	0.86	Yes	0.746	0.248	1.00	Yes	1.00	**2.40**
		$U_{43} - L_{43}$		-----	-697.26	573	-571	52	-66	330	90	-58	-58	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.105	0.91	Yes	0.747	0.243	1.00	Yes	1.00	**2.64**
		$U_{44} - L_{44}$		-----	-635.71	283	-455	109	-121	934	158	-161	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.761	0.231	1.00	Yes	0.681	0.193	0.88	Yes	1.00	**1.99**
	Structure 3	$U_0 - L_0$		-----	-617.12	-134	181	-466	539	-59	-8	211	28	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.149	0.99	Yes	0.741	0.258	1.00	Yes	1.00	**2.61**
		$U_1 - L_1$		-----	-667.70	-104	116	-449	475	-121	-3	-21	128	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.081	0.92	Yes	0.777	0.220	1.00	Yes	1.00	**3.13**
		$U_2 - L_2$		-----	-543.48	-102	108	-404	423	-143	-44	20	25	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.088	0.89	Yes	0.756	0.239	1.00	Yes	1.00	**2.61**
		$U_3 - L_3$		-----	-447.43	-41	54	-196	218	49	-62	1	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.083	0.92	Yes	0.772	0.221	1.00	Yes	1.00	**2.22**
		$U_4 - L_4$		-----	-330.34	-11	16	-219	233	231	51	-42	14	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.147	0.90	Yes	0.699	0.297	1.00	Yes	1.00	**2.69**
		$U_5 - L_5$		60.66	-309.60	47	-45	-248	269	229	155	-6	18	0.109	0.411	0.52	Yes	0.060	0.226	0.29	Yes	0.694	0.186	0.88	Yes	0.655	0.344	1.00	Yes	1.00	**3.53**
		$U_6 - L_6$		-----	-285.24	88	-94	36	-38	383	61	1163	392	-----	-----	-----	-----	-----	-----	-----	-----	0.636	0.362	1.00	Yes	0.604	0.120	0.73	Yes	1.00	**2.60**
		$U_7 - L_7$		-----	-358.53	245	-266	69	-81	86	-19	-8	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.725	0.107	0.84	Yes	0.687	0.304	1.00	Yes	1.00	**2.12**
		$U_8 - L_8$		-----	-510.90	307	-317	111	-108	1117	216	-61	-120	-----	-----	-----	-----	-----	-----	-----	-----	0.738	0.255	1.00	Yes	0.701	0.271	0.98	Yes	1.00	**2.21**
		$U_9 - L_9$		-----	-652.82	416	-513	129	-171	240	-71	-110	-122	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.121	0.91	Yes	0.760	0.238	1.00	Yes	1.00	**2.42**
		$U_{10} - L_{10}$		-----	-799.81	391	-402	118	-115	386	85	-199	-93	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.129	0.96	Yes	0.789	0.209	1.00	Yes	1.00	**2.68**
		$U_{11} - L_{11}$		-----	-643.74	429	-488	168	-193	361	135	-111	-11	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.147	0.92	Yes	0.727	0.271	1.00	Yes	1.00	**1.95**
		$U_{12} - L_{12}$		-----	-1146.65	439	-577	-251	265	1131	524	-674	-107	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.163	1.00	Yes	0.795	0.107	0.91	Yes	1.00	**3.47**
		$U_{13} - L_{13}$		-----	-443.03	-70	81	-292	314	-209	-2	-28	45	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.144	0.89	Yes	0.683	0.309	1.00	Yes	1.00	**2.30**
		$U_{14} - L_{14}$		-----	-517.75	-47	28	-222	212	-679	-310	-496	-261	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.208	1.00	Yes	0.742	0.194	0.94	Yes	1.00	**2.46**
		$U_{15} - L_{15}$		-----	-437.69	-48	52	-227	238	-244	-173	-311	-269	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.155	0.95	Yes	0.755	0.242	1.00	Yes	1.00	**2.23**
		$U_{16} - L_{16}$		-----	-351.76	-52	52	-191	197	-114	-96	174	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.121	0.90	Yes	0.744	0.252	1.00	Yes	1.00	**3.08**
		$U_{17} - L_{17}$		308.82	-211.89	203	-222	-268	310	-46	139	-25	99	0.555	0.436	1.00	Yes	0.305	0.240	0.55	Yes	0.464	0.131	0.60	Yes	0.448	0.396	0.85	Yes	1.00	**7.88**
		$U_{18} - L_{18}$		142.41	-248.89	152	-197	-131	146	1607	372	-149	22	0.256	0.717	0.98	Yes	0.141	0.395	0.54	Yes	0.544	0.451	1.00	Yes	0.527	0.252	0.78	Yes	1.00	**3.44**
		$U_{19} - L_{19}$		84.13	-312.52	260	-242	-87	72	253	52	-91	20	0.151	0.406	0.56	Yes	0.083	0.223	0.31	Yes	0.683	0.143	0.83	Yes	0.661	0.333	1.00	Yes	1.00	**2.75**
		$U_{20} - L_{20}$		68.87	-235.69	183	-200	-39	42	1370	439	-229	-73	0.124	0.652	0.78	Yes	0.075	0.359	0.44	Yes	0.526	0.469	1.00	Yes	0.499	0.256	0.76	Yes	1.00	**6.16**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Diagonals	Structure 1	$U_0 - L_1$	629.89	-72.33	-4	-11	-127	74	17	49	-35	-93	0.826	0.171	1.00	Yes	0.499	0.095	0.60	Yes	0.124	0.097	0.23	Yes	0.112	0.148	0.26	Yes	1.00	**3.56**
		$U_1 - L_2$	464.02	-169.86	32	-25	-90	9	34	20	-163	-120	0.835	0.163	1.00	Yes	0.459	0.090	0.55	Yes	0.390	0.150	0.54	Yes	0.359	0.116	0.48	Yes	1.00	**3.85**
		$U_2 - L_3$	366.91	-334.44	69	-35	-138	1	75	55	-115	-125	0.660	0.213	0.88	Yes	0.363	0.117	0.48	Yes	0.770	0.222	1.00	Yes	0.708	0.176	0.89	Yes	1.00	**5.70**
		$U_3 - L_4$	-----	-321.96	55	-6	-70	-113	124	126	-154	-377	-----	-----	-----	-----	-----	-----	-----	-----	0.736	0.259	1.00	Yes	0.681	0.144	0.83	Yes	1.00	**4.20**
		$U_4 - L_4$	535.98	-----	-7	67	-105	0	48	4	-418	-369	0.793	0.204	1.00	Yes	0.436	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.51**
		$U_5 - L_5$	600.97	-----	-24	163	-187	212	224	96	-894	-322	0.711	0.283	1.00	Yes	0.391	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.27**
		$U_6 - L_6$	638.47	-----	-75	128	-297	251	412	212	-351	-376	0.755	0.244	1.00	Yes	0.415	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.09**
		$U_7 - L_7$	607.03	-----	28	164	-91	301	576	244	-237	-147	0.718	0.276	1.00	Yes	0.395	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.08**
		$U_8 - L_8$	975.18	-----	105	244	-80	377	275	16	228	410	0.780	0.220	1.00	Yes	0.483	0.124	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.61**
		$U_9 - L_{10}$	988.38	-----	-75	88	-299	282	186	132	383	579	0.790	0.207	1.00	Yes	0.489	0.117	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.41**
		$U_{10} - L_{11}$	975.31	-----	-49	168	-233	203	136	192	330	451	0.824	0.167	1.00	Yes	0.510	0.094	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.14**
		$U_{11} - L_{12}$	828.87	-----	-67	95	-267	107	173	164	251	327	0.820	0.173	1.00	Yes	0.451	0.095	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.85**
		$U_{12} - L_{13}$	644.35	-----	-79	65	-201	172	-34	-17	161	72	0.785	0.207	1.00	Yes	0.494	0.116	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.20**
		$U_{13} - L_{14}$	460.71	-----	-31	15	-107	30	-108	-85	27	-59	0.829	0.168	1.00	Yes	0.456	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.20**
		$U_{15} - L_{14}$	230.88	-214.69	40	-55	-124	-90	2	-20	-880	-483	0.415	0.414	0.83	Yes	0.228	0.228	0.46	Yes	0.503	0.493	1.00	Yes	0.454	0.159	0.62	Yes	1.00	**5.60**
		$U_{16} - L_{15}$	297.62	-12.76	-11	-6	-119	72	-84	-81	-1056	-212	0.535	0.458	1.00	Yes	0.294	0.252	0.55	Yes	0.030	0.328	0.36	Yes	0.027	0.152	0.18	Yes	1.00	**2.50**
		$U_{17} - L_{16}$	492.29	-----	-32	12	-139	90	-105	-126	-578	-538	0.722	0.276	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.86**
		$U_{18} - L_{17}$	584.88	-----	-109	73	-303	244	-106	-112	-745	-524	0.691	0.307	1.00	Yes	0.380	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.00**
		$U_{19} - L_{18}$	644.33	-----	-130	85	-339	249	-60	-101	-761	-536	0.698	0.298	1.00	Yes	0.384	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.93**
		$U_{20} - L_{19}$	674.67	-----	-67	72	-393	312	-119	-53	-371	-233	0.731	0.262	1.00	Yes	0.402	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.59**
	Structure 2	$U_0 - L_1$	793.12	-----	-96	82	-422	390	-55	-30	-23	-69	0.785	0.206	1.00	Yes	0.432	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.97**
		$U_1 - L_2$	805.63	-----	-71	51	-396	329	-81	-6	-128	-43	0.797	0.203	1.00	Yes	0.438	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.07**
		$U_2 - L_3$	658.00	-----	-62	46	-348	277	1	111	-21	-18	0.778	0.217	1.00	Yes	0.428	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.57**
		$U_3 - L_4$	592.25	-----	-24	4	-191	137	135	75	-39	-46	0.789	0.202	1.00	Yes	0.434	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.48**
		$U_4 - L_5$	430.76	-87.50	17	-25	-149	102	105	-95	-113	-13	0.775	0.223	1.00	Yes	0.426	0.123	0.55	Yes	0.216	0.091	0.31	Yes	0.185	0.191	0.38	Yes	1.00	**2.99**
		$U_5 - L_6$	425.35	-219.93	67	-64	-139	60	11	-173	-72	2	0.765	0.227	1.00	Yes	0.421	0.125	0.55	Yes	0.519	0.179	0.70	Yes	0.465	0.177	0.65	Yes	1.00	**4.25**
		$U_6 - L_7$	38.89	-389.82	86	-80	-137	-71	-41	-186	-16	-197	0.063	0.208	0.28	Yes	0.035	0.114	0.15	Yes	0.835	0.159	1.00	Yes	0.747	0.157	0.91	Yes	1.00	**5.98**
		$U_8 - L_7$	520.89	-----	-58	46	-225	70	-142	-214	-626	-495	0.664	0.329	1.00	Yes	0.418	0.188	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.40**
		$U_8 - L_8$	612.25	-----	-121	111	-311	196	-32	-73	-1078	-459	0.663	0.337	1.00	Yes	0.365	0.185	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.06**
		$U_{10} - L_9$	758.62	-----	-87	135	-320	202	25	-38	-615	-667	0.751	0.248	1.00	Yes	0.413	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		$U_{11} - L_{10}$	826.69	-----	-91	153	-336	266	192	57	-719	-544	0.753	0.241	1.00	Yes	0.414	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.07**
		$U_{12} - L_{11}$	833.44	-----	-101	167	-355	341	324	156	-634	-454	0.759	0.237	1.00	Yes	0.418	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.04**
		$U_{13} - L_{12}$	741.77	-----	-143	146	-427	379	374	157	-415	-238	0.734	0.260	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.79**
		$U_{14} - L_{13}$	723.10	-----	-2	149	-266	417	551	207	-567	-186	0.715	0.278	1.00	Yes	0.393	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.18**
		$U_{14} - L_{15}$	625.89	-----	109	127	-205	340	320	-176	27	99	0.740	0.251	1.00	Yes	0.407	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		$U_{15} - L_{16}$	633.12	-----	-30	38	-376	360	-66	-19	211	132	0.749	0.251	1.00	Yes	0.412	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.71**
		$U_{16} - L_{17}$	703.85	-----	-38	80	-304	372	-219	101	40	242	0.762	0.230	1.00	Yes	0.419	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.18**
		$U_{17} - L_{18}$	647.59	-----	-48	81	-283	297	-46	176	184	327	0.766	0.227	1.00	Yes	0.421	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.97**
		$U_{18} - L_{19}$	620.00	-----	-18	85	-304	309	79	78	500	244	0.733	0.265	1.00	Yes	0.403	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.02**
		$U_{19} - L_{20}$	599.82	-----	-10	45	-208	174	0	39	237	214	0.765	0.234	1.00	Yes	0.421	0.131	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.89**
		$U_{20} - L_{21}$	436.83	-----	-11	26	-132	112	-45	5	128	49	0.786	0.206	1.00	Yes	0.432	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.69**
		$U_{21} - L_{22}$	420.27	-7.03	7	9	-159	4	-51	117	119	-13	0.756	0.238	1.00	Yes	0.416	0.131	0.55	Yes	0.017	0.148	0.17	Yes	0.015	0.204	0.22	Yes	1.00	**4.53**
		$U_{23} - L_{22}$	320.90	-----	10	31	-148	-30	203	135	-792	-447	0.577	0.419	1.00	Yes	0.317	0.230	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.18**
		$U_{24} - L_{23}$	334.99	-----	-10	28	-110	85	80	36	-885	-169	0.603	0.397	1.00	Yes	0.331	0.218	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.32**
		$U_{25} - L_{24}$	549.64	-----	-17	65	-193	161	194	91	-607	-598	0.701	0.297	1.00	Yes	0.385	0.169	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.51**
		$U_{26} - L_{25}$	615.30	-----	-16	83	-269	251	300	155	-622	-422	0.727	0.265	1.00	Yes	0.400	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.48**
		$U_{27} - L_{26}$	648.18	-----	-37	87	-279	290	369	186	-323	-240	0.766	0.231	1.00	Yes	0.421	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.03**
		$U_{28} - L_{27}$	648.88	-----	-39	85	-299	354	408	239	-663	-106	0.703	0.290	1.00	Yes	0.387	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.00**
		$U_{29} - L_{28}$	625.21	-----	-51	61	-362	348	289	149	-155	-255	0.739	0.257	1.00	Yes	0.407	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.22**
		$U_{30} - L_{29}$	583.86	-----	57	72	-191	330	648	250	-470	-182	0.690	0.304	1.00	Yes	0.380	0.167	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.94**
		$U_{30} - L_{31}$	735.18	-----	70	157	-285	419	459	6	7	50	0.727	0.263	1.00	Yes	0.400	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.88**
		$U_{31} - L_{32}$	724.66	-----	-63	71	-413	383	-45	18	226	136	0.753	0.241	1.00	Yes	0.414	0.124	0.54	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.57**
		$U_{32} - L_{33}$	871.93	-----	-55	97	-339	362	-184	131	95	326	0.794	0.198	1.00	Yes	0.437	0.109	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.50**
		$U_{33} - L_{34}$	858.58	-----	-54	97	-355	285	31	243	267	429	0.782	0.210	1.00	Yes	0.430	0.115	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.98**
		$U_{34} - L_{35}$	811.49	-----	-54	89	-328	227	126	140	264	205	0.803	0.192	1.00	Yes	0.442	0.106	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.99**
		$U_{35} - L_{36}$	735.94	-----	-83	95	-354	244	38	48	125	45	0.797	0.202	1.00	Yes	0.438	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.86**
		$U_{36} - L_{37}$	599.64	-----	-47	53	-239	109	-49	-48	-17	-72	0.765	0.229	1.00	Yes	0.481	0.127	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.45**
		$U_{38} - L_{37}$	-----	-303.67	67	-55	-71	-92	-32	51	-640	-338	-----	-----	-----	-----	-----	-----	-----	-----	0.656	0.340	1.00	Yes	0.582	0.105	0.69	Yes	1.00	**4.85**
		$U_{39} - L_{38}$	254.45	-198.80	60	-57	-96	24	-32	-16	-1442	-252	0.458	0.540	1.00	Yes	0.252	0.297	0.55	Yes	0.474	0.496	0.97	Yes	0.421	0.123	0.55	Yes	1.00	**3.78**
		$U_{40} - L_{39}$	368.56	-106.81	25	-28	-136	87	-37	-36	-496	-545	0.663	0.332	1.00	Yes	0.365	0.183	0.55	Yes	0.256	0.280	0.54	Yes	0.226	0.174	0.41	Yes	1.00	**2.89**
		$U_{41} - L_{40}$	531.01	-----	-8	-6	-171	120	-71	-60	-640	-413	0.708	0.290	1.00	Yes	0.389	0.160	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.22**
		$U_{42} - L_{41}$	585.99	-----	-34	19	-310	252	-47	-46	-685	-478	0.693	0.300	1.00	Yes	0.381	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.25**
		$U_{43} - L_{42}$	714.83	-----	-50	31	-384	300	12	-31	-734	-540	0.707	0.288	1.00	Yes	0.389	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.41**
		$U_{44} - L_{43}$	759.90	-----	-23	30	-439	392	-50	19	-190	-267	0.752	0.244	1.00	Yes	0.413	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.11**
	Structure 3	$U_0 - L_1$	699.56	-----	-108	90	-421	338	-65	-53	29	-132	0.758	0.237	1.00	Yes	0.417	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		$U_1 - L_2$	726.36	-----	-92	60	-342	268	-127	-45	-175	-74	0.787	0.204	1.00	Yes	0.433	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.25**
		$U_2 - L_3$	663.31	-----	-88	54	-352	270	-47	80	-16	-4	0.784	0.214	1.00	Yes	0.431	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.06**
		$U_3 - L_4$	553.52	-----	-24	5	-160	110	76	48	2	-30	0.812	0.180	1.00	Yes	0.446	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.69**
		$U_4 - L_5$	432.37	-50.03	-2	-14	-149	103	51	-107	-95	-54	0.778	0.221	1.00	Yes	0.428	0.121	0.55	Yes	0.119	0.091	0.21	Yes	0.106	0.190	0.30	Yes	1.00	**3.42**
		$U_5 - L_6$	402.44	-208.34	39	-54	-161	-61	-37	-216	-150	-164	0.724	0.269	1.00	Yes	0.398	0.148	0.55	Yes	0.488	0.313	0.81	Yes	0.441	0.206	0.65	Yes	1.00	**5.83**
		$U_7 - L_6$	409.24	-----	-26	7	-99	14	-151	-197	-442	-365	0.736	0.254	1.00	Yes	0.405	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.45**
		$U_8 - L_7$	536.77	-----	-67	52	-182	141	-129	-138	-953	-374	0.654	0.345	1.00	Yes	0.412	0.199	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.08**
		$U_8 - L_8$	759.38	-----	-62	81	-260	79	-91	-140	-790	-810	0.751	0.242	1.00	Yes	0.413	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.56**
		$U_{10} - L_9$	918.33	-----	-44	132	-242	174	91	-3	-826	-693	0.776	0.220	1.00	Yes	0.480	0.126	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.85**
		$U_{11} - L_{10}$	959.20	-----	-74	126	-298	261	364	204	-756	-558	0.767	0.229	1.00	Yes	0.475	0.130	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.77**
		$U_{12} - L_{11}$	936.62	-----	55	175	-90	360	672	282	-576	-334	0.749	0.246	1.00	Yes	0.464	0.139	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.85**
		$U_{12} - L_{13}$	666.97	-----	87	177	-104	312	66	-152	4	129	0.789	0.205	1.00	Yes	0.434	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.76**
		$U_{13} - L_{14}$	652.27	-----	-16	67	-300	266	-22	22	13	278	0.771	0.222	1.00	Yes	0.424	0.122	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.37**
		$U_{14} - L_{15}$	693.10	-----	14	160	-195	227	-20	124	101	241	0.819	0.173	1.00	Yes	0.451	0.095	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		$U_{15} - L_{16}$	566.65	-----	7	78	-112	9	129	212	45	150	0.831	0.163	1.00	Yes	0.457	0.090	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.95**
		$U_{17} - L_{16}$	-----	-321.21	62	1	-57	-101	232	202	-385	-170	-----	-----	-----	-----	-----	-----	-----	-----	0.734	0.265	1.00	Yes	0.680	0.129	0.81	Yes	1.00	**4.14**
		$U_{18} - L_{17}$	146.35	-257.18	55	-29	-80	-12	273	181	-1073	-214	0.263	0.413	0.68	Yes	0.145	0.227	0.38	Yes	0.592	0.400	1.00	Yes	0.544	0.102	0.65	Yes	1.00	**3.58**
		$U_{19} - L_{18}$	383.67	-184.41	36	-24	-103	21	249	194	-616	-560	0.690	0.310	1.00	Yes	0.380	0.170	0.55	Yes	0.423	0.319	0.75	Yes	0.390	0.131	0.53	Yes	1.00	**2.93**
		$U_{20} - L_{19}$	565.28	-----	25	22	-48	22	-778	-455	-220	-209	0.742	0.252	1.00	Yes	0.448	0.139	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.99**

Moment (Start) AI Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression																Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield													
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass									
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																										
Center Truss - Upper Chord	Structure 1	U_0 - U_1	-----	-561.88	121	-653	-350	-552	300	-370	292	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.228	1	Yes	0.758	0.155	0.92	Yes	1.00	**5.87**
		U_1 - U_2	87.29	-577.36	-31	99	-211	-633	-48	-232	258	-167	0.100	0.194	0.30	Yes	0.069	0.133	0.21	Yes	0.786	0.208	1	Yes	0.779	0.150	0.93	Yes	1.00	**3.68**
		U_2 - U_3	284.88	-646.41	-40	392	-540	-213	-60	-89	265	-264	0.327	0.173	0.50	Yes	0.220	0.113	0.34	Yes	0.880	0.117	1	Yes	0.872	0.128	1.00	Yes	1.00	**3.98**
		U_3 - U_4	369.86	-550.56	123	296	-322	-762	-116	-96	19	-170	0.424	0.210	0.64	Yes	0.291	0.144	0.44	Yes	0.749	0.244	1	Yes	0.742	0.181	0.93	Yes	1.00	**3.20**
		U_4 - U_5	382.94	-561.71	139	296	-1006	-107	-216	-20	-87	-93	0.439	0.276	0.72	Yes	0.301	0.189	0.50	Yes	0.764	0.230	1	Yes	0.757	0.239	1.00	Yes	1.00	**3.29**
		U_5 - U_6	680.37	-329.29	285	431	-353	142	-387	-12	-5	-660	0.780	0.214	1.00	Yes	0.526	0.142	0.67	Yes	0.448	0.209	0.66	Yes	0.444	0.102	0.55	Yes	1.00	**4.34**
		U_6 - U_7	886.56	-----	344	206	-453	9	-360	147	-105	-104	0.848	0.146	1.00	Yes	0.593	0.100	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.18**
		U_7 - U_8	990.32	-----	-11	1194	-633	1729	-252	452	-387	53	0.686	0.308	1.00	Yes	0.479	0.210	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		U_8 - U_9	856.54	-----	1499	-495	618	-162	67	343	32	185	0.702	0.293	1.00	Yes	0.480	0.200	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.58**
		U_9 - U_{10}	714.81	-----	431	-76	61	27	387	789	158	301	0.775	0.223	1.00	Yes	0.525	0.150	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.35**
		U_{10} - U_{11}	-----	-344.26	1789	-2472	84	-180	1214	304	243	55	-----	-----	-----	-----	-----	-----	-----	-----	0.443	0.448	0.9	Yes	0.439	0.554	1.00	Yes	1.00	**18.86**
		U_{11} - U_{12}	-----	-895.17	218	-103	-48	-732	160	103	408	211	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.149	1	Yes	0.840	0.121	0.97	Yes	1.00	**3.26**
		U_{12} - U_{13}	-----	-1282.11	7	-155	-350	-496	197	-45	787	-21	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.132	1	Yes	0.856	0.068	0.93	Yes	1.00	**3.59**
		U_{13} - U_{14}	-----	-1389.31	-105	-353	-472	-1432	150	65	141	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.187	1	Yes	0.796	0.158	0.96	Yes	1.00	**2.83**
		U_{14} - U_{15}	-----	-1346.82	-253	-188	-1560	-580	182	-56	265	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.214	1	Yes	0.772	0.172	0.95	Yes	1.00	**2.52**
		U_{15} - U_{16}	-----	-1510.95	-26	-410	-594	-644	11	-56	596	181	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.116	1	Yes	0.866	0.071	0.94	Yes	1.00	**4.02**
		U_{16} - U_{17}	-----	-1419.43	-314	-186	-1271	-458	48	-171	179	-236	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.171	1	Yes	0.814	0.140	0.96	Yes	1.00	**3.22**
		U_{17} - U_{18}	-----	-1055.64	-157	-109	-682	15	-151	-205	-136	-560	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.161	1	Yes	0.826	0.111	0.94	Yes	1.00	**3.40**
		U_{18} - U_{19}	-----	-726.22	-192	-30	-654	38	-173	-162	-217	-314	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.171	1	Yes	0.817	0.131	0.95	Yes	1.00	**3.15**
		U_{19} - U_{20}	-----	-649.13	-154	-116	-1291	340	-42	24	115	-500	-----	-----	-----	-----	-----	-----	-----	-----	0.737	0.254	1	Yes	0.730	0.260	0.99	Yes	1.00	**7.87**
	Structure 2	U_0 - U_1	-----	-633.35	577	-1461	-84	-28	531	276	17	-63	-----	-----	-----	-----	-----	-----	-----	-----	0.753	0.227	0.98	Yes	0.748	0.248	1.00	Yes	1.00	**7.54**
		U_1 - U_2	-----	-828.24	-87	-132	-147	-918	46	17	361	-149	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.188	1	Yes	0.799	0.139	0.94	Yes	1.00	**5.37**
		U_2 - U_3	-----	-1142.69	-36	-1121	-260	-879	1129	127	314	-39	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.181	1	Yes	0.811	0.114	0.93	Yes	1.00	**3.57**
		U_3 - U_4	-----	-1453.00	-341	-233	-916	-1134	96	-348	436	346	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.166	1	Yes	0.827	0.101	0.93	Yes	1.00	**2.93**
		U_4 - U_5	-----	-1549.49	-335	-261	-1005	-1461	-111	-391	582	31	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.190	1	Yes	0.796	0.121	0.92	Yes	1.00	**2.79**
		U_5 - U_6	-----	-1625.97	-332	107	-1275	-561	-154	-328	578	-5	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.152	1	Yes	0.835	0.106	0.95	Yes	1.00	**2.86**
		U_6 - U_7	-----	-1378.17	-207	-24	-884	-1467	-118	-280	346	-160	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.203	1	Yes	0.785	0.131	0.92	Yes	1.00	**2.45**
		U_7 - U_8	-----	-1381.01	-123	-152	-1586	-745	-208	-232	-145	-339	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.203	1	Yes	0.786	0.141	0.93	Yes	1.00	**2.40**
		U_8 - U_9	64.18	-1261.41	-208	209	-926	-303	-300	-201	335	-88	0.037	0.126	0.17	Yes	0.026	0.083	0.11	Yes	0.862	0.134	1	Yes	0.856	0.098	0.96	Yes	1.00	**2.98**
		U_9 - U_{10}	215.02	-945.56	-32	347	-1388	-102	-317	-140	155	-92	0.158	0.203	0.37	Yes	0.107	0.138	0.25	Yes	0.821	0.177	1	Yes	0.816	0.169	0.99	Yes	1.00	**2.66**
		U_{10} - U_{11}	728.35	-833.61	245	507	-977	-118	-201	-39	-220	-384	0.615	0.185	0.80	Yes	0.419	0.120	0.54	Yes	0.833	0.159	1	Yes	0.828	0.138	0.97	Yes	1.00	**4.30**
		U_{11} - U_{12}	897.32	-----	240	559	-1245	760	-380	-158	-395	-508	0.758	0.237	1.00	Yes	0.509	0.159	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.95**
		U_{12} - U_{13}	1240.12	-----	429	61	-590	-347	-466	12	-867	-790	0.837	0.157	1.00	Yes	0.597	0.109	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		U_{13} - U_{14}	1260.33	-----	-205	2215	-1206	3802	-343	303	-255	118	0.620	0.375	1.00	Yes	0.439	0.246	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.72**
		U_{14} - U_{15}	1302.37	-----	3501	-528	1551	-121	-139	458	-120	241	0.640	0.355	1.00	Yes	0.453	0.233	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.48**
		U_{15} - U_{16}	1329.68	-----	217	859	-439	-829	-404	95	616	1099	0.804	0.191	1.00	Yes	0.572	0.131	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.08**
		U_{16} - U_{17}	1012.33	-----	1334	-471	319	35	798	451	349	183	0.746	0.251	1.00	Yes	0.496	0.165	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.61**
		U_{17} - U_{18}	607.64	-452.04	1246	-1782	94	-1143	194	-382	554	468	0.610	0.384	1.00	Yes	0.406	0.254	0.67	Yes	0.537	0.263	0.8	Yes	0.534	0.302	0.84	Yes	1.00	**10.58**
		U_{18} - U_{19}	852.86	-100.90	626	548	-37	-452	-238	-72	215	17	0.856	0.141	1.00	Yes	0.562	0.090	0.66	Yes	0.120	0.130	0.26	Yes	0.119	0.106	0.23	Yes	1.00	**5.84**
		U_{19} - U_{20}	541.14	-758.31	426	325	-274	-713	-159	65	385	246	0.507	0.166	0.68	Yes	0.336	0.109	0.45	Yes	0.842	0.154	1	Yes	0.837	0.114	0.96	Yes	1.00	**4.13**
		U_{20} - U_{21}	460.16	-923.55	263	275	-468	-483	-104	-25	719	-97	0.357	0.148	0.51	Yes	0.250	0.100	0.35	Yes	0.849	0.144	1	Yes	0.843	0.070	0.92	Yes	1.00	**4.02**
		U_{21} - U_{22}	316.95	-859.04	123	133	-575	-1097	-43	56	50	-154	0.246	0.176	0.43	Yes	0.174	0.117	0.30	Yes	0.790	0.206	1	Yes	0.784	0.159	0.95	Yes	1.00	**3.08**
		U_{22} - U_{23}	266.55	-822.07	124	93	-1344	-517	-43	-23	89	-131	0.207	0.209	0.42	Yes	0.147	0.139	0.29	Yes	0.756	0.235	1	Yes	0.750	0.195	0.95	Yes	1.00	**2.73**
		U_{23} - U_{24}	829.06	-824.21	548	373	-1042	-213	-531	76	-176	-491	0.643	0.209	0.86	Yes	0.450	0.137	0.59	Yes	0.758	0.238	1	Yes	0.752	0.151	0.91	Yes	1.00	**7.07**
		U_{24} - U_{25}	432.55	-760.14	234	320	-884	-212	-207	44	90	-146	0.406	0.169	0.58	Yes	0.269	0.111	0.39	Yes	0.844	0.154	1	Yes	0.839	0.141	0.99	Yes	1.00	**3.53**
		U_{25} - U_{26}	792.03	-614.20	484	542	-958	349	-271	156	-41	-234	0.795	0.202	1.00	Yes	0.522	0.129	0.66	Yes	0.730	0.193	0.93	Yes	0.725	0.163	0.89	Yes	1.00	**5.66**
		U_{26} - U_{27}	747.93	-----	371	410	-1227	624	-198	95	-275	-145	0.751	0.249	1.00	Yes	0.500	0.165	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.57**
		U_{27} - U_{28}	1087.46	-----	429	547	-987	856	-287	156	-415	-679	0.801	0.195	1.00	Yes	0.533	0.128	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.50**
		U_{28} - U_{29}	1424.80	-----	343	5	-748	-137	-216	329	-519	-189	0.861	0.129	1.00	Yes	0.613	0.088	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.19**
		U_{29} - U_{30}	1278.19	-----	-77	2012	-607	3570	-80	548	-472	240	0.629	0.368	1.00	Yes	0.445	0.241	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.55**
		U_{30} - U_{31}	1268.05	-----	3636	-865	1501	-257	60	540	118	334	0.624	0.374	1.00	Yes	0.441	0.245	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.66**
		U_{31} - U_{32}	1189.83	-----	149	577	-417	-692	-119	172	875	1140	0.803	0.196	1.00	Yes	0.573	0.136	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.03**
		U_{32} - U_{33}	871.57	-----	1119	-1323	233	-78	626	-101	384	137	0.736	0.263	1.00	Yes	0.495	0.176	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.39**
		U_{33} - U_{34}	849.65	-819.58	554	359	-192	-1063	100	250	529	304	0.718	0.214	0.94	Yes	0.488	0.140	0.63	Yes	0.819	0.179	1	Yes	0.814	0.150	0.97	Yes	1.00	**4.59**
		U_{34} - U_{35}	379.16	-979.11	464	75	-195	-1173	106	39	383	-13	0.278	0.184	0.47	Yes	0.188	0.125	0.32	Yes	0.850	0.143	1	Yes	0.845	0.143	0.99	Yes	1.00	**3.23**
		U_{35} - U_{36}	121.79	-1263.46	245	-189	-449	-821	93	131	551	111	0.070	0.133	0.21	Yes	0.049	0.088	0.14	Yes	0.863	0.131	1	Yes	0.857	0.087	0.95	Yes	1.00	**2.99**
		U_{36} - U_{37}	-----	-1372.06	-72	-14	-768	-1617	130	-67	453	-31	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.204	1	Yes	0.781	0.144	0.93	Yes	1.00	**2.65**
		U_{37} - U_{38}	-----	-1370.93	118	-176	-1532	-894	21	39	242	61	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.206	1	Yes	0.781	0.136	0.92	Yes	1.00	**2.64**
		U_{38} - U_{39}	-----	-1679.74	199	-328	-710	-1185	92	-61	520	-11	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.130	1	Yes	0.862	0.098	0.97	Yes	1.00	**3.48**
		U_{39} - U_{40}	-----	-1513.42	-274	-454	-1927	-873	-114	-119	220	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.212	1	Yes	0.777	0.160	0.94	Yes	1.00	**2.64**
		U_{40} - U_{41}	-----	-1468.33	-346	-410	-936	-854	-90	-98	-198	-414	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.149	1	Yes	0.836	0.083	0.92	Yes	1.00	**3.05**
		U_{41} - U_{42}	-----	-1178.20	-216	-192	-1174	-130	-73	103	-157	-381	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.156	1	Yes	0.836	0.120	0.96	Yes	1.00	**3.19**
		U_{42} - U_{43}	-----	-856.50	-228	-57	-853	-43	187	-10	-232	-374	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.161	1	Yes	0.827	0.129	0.96	Yes	1.00	**3.50**
		U_{43} - U_{44}	-----	-616.40	-27	-235	-1358	274	-9	19	-94	-388	-----	-----	-----	-----	-----	-----	-----	-----	0.732	0.263	1	Yes	0.728	0.231	0.96	Yes	1.00	**6.06**
	Structure 3	U_0 - U_1	-----	-659.12	579	-1202	-7	-1210	621	-184	457	-202	-----	-----	-----	-----	-----	-----	-----	-----	0.748	0.248	1	Yes	0.742	0.243	0.99	Yes	1.00	**8.61**
		U_1 - U_2	-----	-698.98	-4	-564	-69	-97	438	645	247	511	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.203	1	Yes	0.786	0.114	0.90	Yes	1.00	**3.61**
		U_2 - U_3	-----	-1054.35	21	-667	-91	-125	787	-28	375	-5	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.162	1	Yes	0.825	0.109	0.94	Yes	1.00	**3.64**
		U_3 - U_4	-----	-1429.91	-141	-194	-499	-1084	124	-246	485	328	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.166	1	Yes	0.820	0.120	0.94	Yes	1.00	**3.69**
		U_4 - U_5	-----	-1460.01	-318	-28	-840	-403	-24	-318	748	-165	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.144	1	Yes	0.837	0.093	0.93	Yes	1.00	**3.37**
		U_5 - U_6	-----	-1369.39	-148	-223	-613	-1346	-52	-211	-58	-306	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.198	1	Yes	0.785	0.149	0.94	Yes	1.00	**2.95**
		U_6 - U_7	-----	-1349.42	-315	-92	-1715	-422	-81	-230	38	-198	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.217	1	Yes	0.774	0.189	0.97	Yes	1.00	**2.64**
		U_7 - U_8	-----	-1261.11	-121	-28	-509	-422	-225	-218	-1	-666	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.143	1	Yes	0.842	0.070	0.92	Yes	1.00	**3.19**
		U_8 - U_9	-----	-906.72	-102	168	-841	-1	-214	-126	84	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.138	1	Yes	0.851	0.139	1.00	Yes	1.00	**2.89**
		U_9 - U_{10}	207.68	-616.74	-38	246	-896	251	-312	-140	-221	-381	0.225	0.262	0.49	Yes	0.150	0.169	0.32	Yes	0.794	0.199	1	Yes	0.787	0.201	0.99	Yes	1.00	**4.17**
		U_{10} - U_{11}	740.53	-35.50	280	235	-484	241	-357	2	-544	-413	0.803	0.196	1.00	Yes	0.544	0.131	0.68	Yes	0.046	0.120	0.17	Yes	0.045	0.108	0.16	Yes	1.00	**6.22**
		U_{11} - U_{12}	803.35	-----	-151	1128	-837	1646	-333	198	-466	-221	0.658	0.333	1.00	Yes	0.450	0.227	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.42**
		U_{12} - U_{13}	1002.09	-----	1760	-404	646	-45	-286	141	-147	55	0.694	0.296	1.00	Yes	0.484	0.202	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.82**
		U_{13} - U_{14}	881.76	-----	242	400	-29	-312	-175	308	274	498	0.843	0.154	1.00	Yes	0.589	0.106	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.68**
		U_{14} - U_{15}	363.92	-----	2000	-564	147	58	634	-179	132	40	0.417	0.582	1.00	Yes	0.281	0.380	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**16.25**
		U_{15} - U_{16}	453.47	-562.47	357	198	-166	-842	-37	174	337	209	0.520	0.257	0.78	Yes	0.357	0.176	0.54	Yes	0.765	0.228	1	Yes	0.758	0.200	0.96	Yes	1.00	**4.04**
		U_{16} - U_{17}	386.03	-590.12	348	109	-781	-347	19	90	202	-11	0.442	0.220	0.67	Yes	0.304	0.151	0.46	Yes	0.803	0.194	1	Yes	0.796	0.186	0.99	Yes	1.00	**3.42**
		U_{17} - U_{18}	239.19	-659.49	358	-103	-288	-375	-83	247	98	-204	0.274	0.131	0.41	Yes	0.185	0.086	0.28	Yes	0.897	0.096	1	Yes	0.889	0.089	0.98	Yes	1.00	**3.62**
		U_{18} - U_{19}	79.34	-575.12	100	-19	-764	-180	216	55	207	5	0.091	0.218	0.31	Yes	0.062	0.149	0.22	Yes	0.783	0.215	1	Yes	0.776	0.182	0.96	Yes	1.00	**3.10**
		U_{19} - U_{20}	50.42	-616.72	235	-500	-687	70	-8	65	220	-309	0.058	0.215	0.28	Yes	0.040	0.148	0.19	Yes	0.839	0.153	1	Yes	0.832	0.163	1.00	Yes	1.00	**6.04**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Lower Chord	Structure 1	L_0 - L_1	127.89	-124.19	1062	-1463	-377	291	-459	-1690	51	186	0.196	0.802	1.00	Yes	0.115	0.481	0.60	Yes	0.225	0.563	0.79	Yes	0.224	0.439	0.67	Yes	1.00	**20.31**
		L_1 - L_2	415.95	-----	52	-114	-114	-700	-13	36	-672	283	0.637	0.354	1.00	Yes	0.388	0.232	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.36**
		L_2 - L_3	706.99	-206.13	26	172	-607	-557	1	-17	198	-164	0.813	0.178	1.00	Yes	0.471	0.107	0.58	Yes	0.282	0.183	0.47	Yes	0.279	0.147	0.43	Yes	1.00	**4.86**
		L_3 - L_4	667.62	-318.23	90	350	-379	-705	-15	-7	-349	273	0.768	0.226	1.00	Yes	0.456	0.145	0.61	Yes	0.435	0.201	0.64	Yes	0.431	0.170	0.61	Yes	1.00	**4.31**
		L_4 - L_5	127.78	-508.81	114	460	-832	422	133	-112	-68	-30	0.165	0.244	0.41	Yes	0.099	0.161	0.26	Yes	0.782	0.175	0.96	Yes	0.775	0.220	1.00	Yes	1.00	**3.02**
		L_5 - L_6	-----	-735.31	144	567	-283	198	29	95	197	153	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.135	1	Yes	0.848	0.125	0.98	Yes	1.00	**3.21**
		L_6 - L_7	-----	-1118.42	187	-19	-596	313	138	-46	-103	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.910	0.040	0.96	Yes	0.900	0.094	1.00	Yes	1.00	**4.58**
		L_7 - L_8	-----	-1246.67	-33	584	-98	1456	41	72	106	155	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.193	1	Yes	0.790	0.193	0.99	Yes	1.00	**2.39**
		L_8 - L_9	-----	-1265.20	1409	-111	554	-47	132	83	38	-14	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.182	1	Yes	0.801	0.187	0.99	Yes	1.00	**2.56**
		L_9 - L_{10}	-----	-1117.40	609	-602	-109	104	103	100	276	-23	-----	-----	-----	-----	-----	-----	-----	-----	0.909	0.051	0.97	Yes	0.899	0.096	1.00	Yes	1.00	**7.34**
		L_{10} - L_{11}	-----	-537.11	653	-388	157	-151	110	40	52	18	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.082	0.91	Yes	0.818	0.173	1.00	Yes	1.00	**4.22**
		L_{11} - L_{12}	163.56	-----	2173	-2630	207	-258	-247	-505	-38	60	0.212	0.785	1.00	Yes	0.127	0.516	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**27.99**
		L_{12} - L_{13}	1131.65	-----	112	-78	-298	-469	-26	-42	7	-180	0.893	0.104	1.00	Yes	0.571	0.063	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.40**
		L_{13} - L_{14}	1274.57	-----	340	-1571	91	-1370	-251	81	-325	229	0.750	0.243	1.00	Yes	0.486	0.149	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		L_{14} - L_{15}	1556.11	-----	-348	-82	-1863	-308	-68	-51	-158	92	0.760	0.236	1.00	Yes	0.494	0.142	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		L_{15} - L_{16}	1707.94	-----	-185	-390	-961	-1170	-79	10	322	228	0.834	0.164	1.00	Yes	0.536	0.096	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.71**
		L_{16} - L_{17}	1255.37	-----	-393	33	-1222	74	-35	-63	-260	-77	0.794	0.203	1.00	Yes	0.515	0.125	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.47**
		L_{17} - L_{18}	941.28	-----	-165	-65	-712	145	-65	-5	-228	-317	0.820	0.178	1.00	Yes	0.525	0.107	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.89**
		L_{18} - L_{19}	439.20	-----	-229	164	-918	443	-1	-27	-226	208	0.672	0.322	1.00	Yes	0.455	0.202	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.00**
		L_{19} - L_{20}	84.48	-280.24	-93	18	-1642	953	-36	-8	591	132	0.129	0.615	0.75	Yes	0.079	0.411	0.49	Yes	0.509	0.347	0.86	Yes	0.505	0.493	1.00	Yes	1.00	**12.81**
	Structure 2	L_0 - L_1	68.59	-21.83	1058	-2595	-228	231	-359	-1247	8	28	0.104	0.890	1.00	Yes	0.063	0.444	0.51	Yes	0.039	0.635	0.68	Yes	0.039	0.626	0.67	Yes	1.00	**15.34**
		L_1 - L_2	567.87	-----	418	-1157	132	-130	-411	239	82	84	0.690	0.303	1.00	Yes	0.410	0.193	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.75**
		L_2 - L_3	992.41	-----	195	-1036	-167	-806	617	549	280	-77	0.782	0.215	1.00	Yes	0.513	0.131	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.28**
		L_3 - L_4	1392.99	-----	74	-461	-367	-1382	33	115	86	159	0.818	0.174	1.00	Yes	0.551	0.108	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.36**
		L_4 - L_5	1842.98	-----	-206	-159	-1045	-1292	15	-13	236	-82	0.859	0.138	1.00	Yes	0.569	0.082	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.20**
		L_5 - L_6	1926.52	-----	-11	-249	-788	-1596	-92	56	-353	176	0.827	0.164	1.00	Yes	0.555	0.100	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.88**
		L_6 - L_7	1956.07	-----	-303	-5	-1687	-1620	55	-33	255	21	0.828	0.164	1.00	Yes	0.550	0.096	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		L_7 - L_8	1363.74	-83.86	-145	303	-1490	-444	-60	80	-602	-244	0.782	0.214	1.00	Yes	0.514	0.128	0.65	Yes	0.057	0.192	0.25	Yes	0.057	0.164	0.23	Yes	1.00	**3.15**
		L_8 - L_9	1117.56	-349.60	-74	536	-1029	-48	49	-141	196	826	0.782	0.217	1.00	Yes	0.527	0.138	0.67	Yes	0.290	0.150	0.44	Yes	0.288	0.139	0.43	Yes	1.00	**3.50**
		L_9 - L_{10}	772.92	-742.22	-21	704	-1349	205	-42	6	357	-84	0.690	0.259	0.95	Yes	0.402	0.160	0.57	Yes	0.785	0.139	0.93	Yes	0.779	0.216	1.00	Yes	1.00	**4.45**
		L_{10} - L_{11}	92.43	-732.71	37	568	-766	489	126	-47	-210	-141	0.092	0.162	0.26	Yes	0.054	0.102	0.16	Yes	0.866	0.103	0.97	Yes	0.861	0.134	1.00	Yes	1.00	**3.08**
		L_{11} - L_{12}	-----	-1004.98	-24	919	-685	1286	17	63	-26	19	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.102	0.94	Yes	0.824	0.175	1.00	Yes	1.00	**2.94**
		L_{12} - L_{13}	-----	-1448.45	176	-779	-956	-371	73	-52	29	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.874	0.119	1	Yes	0.866	0.095	0.97	Yes	1.00	**4.89**
		L_{13} - L_{14}	-----	-1461.67	-488	1434	-1184	2978	-78	-111	93	-33	-----	-----	-----	-----	-----	-----	-----	-----	0.742	0.174	0.92	Yes	0.735	0.260	1.00	Yes	1.00	**2.17**
		L_{14} - L_{15}	-----	-1473.34	2880	-1115	1394	-536	-80	-76	-128	-109	-----	-----	-----	-----	-----	-----	-----	-----	0.748	0.169	0.92	Yes	0.741	0.251	1.00	Yes	1.00	**2.02**
		L_{15} - L_{16}	-----	-1478.10	-424	-148	-1095	-86	17	86	-2	3	-----	-----	-----	-----	-----	-----	-----	-----	0.891	0.102	1	Yes	0.884	0.109	1.00	Yes	1.00	**2.88**
		L_{16} - L_{17}	-----	-1130.13	1390	-272	612	-64	41	-8	22	-4	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.131	0.97	Yes	0.823	0.171	1.00	Yes	1.00	**2.63**
		L_{17} - L_{18}	-----	-830.58	793	-519	354	-47	11	0	4	28	-----	-----	-----	-----	-----	-----	-----	-----	0.878	0.076	0.96	Yes	0.872	0.127	1.00	Yes	1.00	**3.27**
		L_{18} - L_{19}	-----	-660.60	595	155	205	-332	-47	-69	116	-55	-----	-----	-----	-----	-----	-----	-----	-----	0.886	0.096	0.99	Yes	0.880	0.115	1.00	Yes	1.00	**3.24**
		L_{19} - L_{20}	284.25	-676.13	502	280	119	-482	-26	-42	-178	137	0.322	0.124	0.45	Yes	0.190	0.078	0.27	Yes	0.907	0.085	1	Yes	0.901	0.097	1.00	Yes	1.00	**4.20**
		L_{20} - L_{21}	1061.58	-814.87	593	259	-538	-895	14	-65	9	-204	0.847	0.153	1.00	Yes	0.555	0.091	0.65	Yes	0.770	0.127	0.9	Yes	0.764	0.131	0.90	Yes	1.00	**5.71**
		L_{21} - L_{22}	713.10	-877.23	469	354	-663	-1190	-33	-105	166	19	0.569	0.191	0.77	Yes	0.380	0.120	0.51	Yes	0.829	0.156	0.99	Yes	0.823	0.174	1.00	Yes	1.00	**6.59**
		L_{22} - L_{23}	891.25	-450.69	114	263	-1880	-316	59	-61	-98	66	0.711	0.285	1.00	Yes	0.475	0.178	0.66	Yes	0.426	0.234	0.66	Yes	0.423	0.274	0.70	Yes	1.00	**3.85**
		L_{23} - L_{24}	993.51	-697.67	210	459	-1087	-609	4	48	380	276	0.792	0.200	1.00	Yes	0.520	0.120	0.64	Yes	0.659	0.191	0.86	Yes	0.655	0.159	0.82	Yes	1.00	**5.32**
		L_{24} - L_{25}	434.72	-623.03	243	465	-845	217	97	-98	-167	36	0.492	0.189	0.69	Yes	0.291	0.120	0.42	Yes	0.835	0.122	0.96	Yes	0.830	0.163	1.00	Yes	1.00	**4.24**
		L_{25} - L_{26}	-----	-664.87	156	566	-566	390	11	72	3	72	-----	-----	-----	-----	-----	-----	-----	-----	0.892	0.086	0.98	Yes	0.886	0.109	1.00	Yes	1.00	**3.79**
		L_{26} - L_{27}	-----	-820.57	231	412	-707	858	131	-8	86	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.076	0.95	Yes	0.862	0.137	1.00	Yes	1.00	**3.76**
		L_{27} - L_{28}	-----	-1140.46	169	1105	-775	1350	126	215	16	-60	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.126	0.97	Yes	0.831	0.167	1.00	Yes	1.00	**5.91**
		L_{28} - L_{29}	-----	-1456.19	24	-811	-394	-969	186	98	-45	-87	-----	-----	-----	-----	-----	-----	-----	-----	0.878	0.112	1	Yes	0.871	0.096	0.97	Yes	1.00	**2.99**
		L_{29} - L_{30}	-----	-1473.21	-484	1307	-1118	2915	21	13	15	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.748	0.164	0.92	Yes	0.741	0.255	1.00	Yes	1.00	**2.18**
		L_{30} - L_{31}	-----	-1454.49	2965	-1095	1336	-472	-42	-44	-6	-18	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.171	0.91	Yes	0.732	0.259	1.00	Yes	1.00	**2.16**
		L_{31} - L_{32}	-----	-1462.61	-295	-164	-974	-300	5	15	157	167	-----	-----	-----	-----	-----	-----	-----	-----	0.882	0.116	1	Yes	0.875	0.097	0.98	Yes	1.00	**3.22**
		L_{32} - L_{33}	-----	-1000.85	1280	-587	529	-149	43	12	45	27	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.112	0.94	Yes	0.821	0.174	1.00	Yes	1.00	**2.89**
		L_{33} - L_{34}	-----	-766.18	543	130	362	-173	1	-11	12	82	-----	-----	-----	-----	-----	-----	-----	-----	0.906	0.073	0.98	Yes	0.900	0.095	1.00	Yes	1.00	**3.16**
		L_{34} - L_{35}	797.27	-787.59	777	23	26	-1069	3	-52	181	-142	0.712	0.193	0.91	Yes	0.414	0.120	0.54	Yes	0.833	0.105	0.94	Yes	0.827	0.171	1.00	Yes	1.00	**4.47**
		L_{35} - L_{36}	1169.78	-462.72	599	-1	94	-995	-43	-8	-442	247	0.818	0.176	1.00	Yes	0.551	0.111	0.67	Yes	0.384	0.089	0.48	Yes	0.381	0.134	0.52	Yes	1.00	**3.97**
		L_{36} - L_{37}	1402.11	-153.63	408	-8	-434	-1492	14	-18	304	34	0.804	0.190	1.00	Yes	0.528	0.112	0.64	Yes	0.104	0.171	0.28	Yes	0.104	0.165	0.27	Yes	1.00	**3.43**
		L_{37} - L_{38}	1895.90	-----	162	-338	-1797	-1527	-57	36	-507	270	0.802	0.189	1.00	Yes	0.533	0.112	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.18**
		L_{38} - L_{39}	1841.67	-----	-291	-54	-1683	-1229	-5	-67	334	837	0.790	0.202	1.00	Yes	0.530	0.125	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.80**
		L_{39} - L_{40}	1748.03	-----	-181	-365	-1678	-703	-70	-8	361	-67	0.815	0.183	1.00	Yes	0.540	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.32**
		L_{40} - L_{41}	1416.92	-----	-343	3	-1215	-85	-1	3	-288	-146	0.833	0.165	1.00	Yes	0.561	0.103	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.57**
		L_{41} - L_{42}	1032.48	-----	-123	-122	-1031	112	46	102	-255	-290	0.814	0.180	1.00	Yes	0.534	0.108	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.24**
		L_{42} - L_{43}	576.11	-----	-212	134	-1216	393	76	26	-163	284	0.700	0.294	1.00	Yes	0.416	0.188	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.06**
		L_{43} - L_{44}	-----	-166.29	244	-186	-3717	1337	-89	-26	1351	394	-----	-----	-----	-----	-----	-----	-----	-----	0.239	0.655	0.9	Yes	0.238	0.756	1.00	Yes	1.00	**22.33**
	Structure 3	L_0 - L_1	23.56	-151.96	1414	-2351	-92	53	-266	-1204	3	13	0.036	0.955	1.00	Yes	0.022	0.634	0.66	Yes	0.276	0.570	0.85	Yes	0.274	0.706	0.98	Yes	1.00	**20.09**
		L_1 - L_2	453.78	-----	388	-810	146	-165	-293	300	36	60	0.694	0.305	1.00	Yes	0.470	0.192	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.86**
		L_2 - L_3	907.83	-----	178	-774	-46	-142	448	318	52	57	0.791	0.206	1.00	Yes	0.506	0.125	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.96**
		L_3 - L_4	1278.66	-----	62	-382	-14	-1121	28	114	-203	218	0.808	0.184	1.00	Yes	0.525	0.113	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.29**
		L_4 - L_5	1750.36	-----	-270	-127	-1062	-786	28	14	87	-135	0.855	0.137	1.00	Yes	0.549	0.080	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.03**
		L_5 - L_6	1589.96	-----	-35	-311	-347	-1626	-62	137	-227	376	0.777	0.222	1.00	Yes	0.505	0.135	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.87**
		L_6 - L_7	1285.11	-----	-348	208	-1670	220	4	-33	-49	132	0.756	0.241	1.00	Yes	0.490	0.147	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.54**
		L_7 - L_8	1087.28	-----	-78	75	-548	-342	-30	52	337	329	0.858	0.137	1.00	Yes	0.549	0.082	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.12**
		L_8 - L_9	572.66	-183.45	-162	352	-855	332	60	-104	-144	-21	0.742	0.252	1.00	Yes	0.445	0.165	0.62	Yes	0.282	0.118	0.4	Yes	0.279	0.226	0.51	Yes	1.00	**4.23**
		L_9 - L_{10}	-----	-537.86	-22	495	-656	353	12	78	-40	4	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.080	0.91	Yes	0.819	0.174	1.00	Yes	1.00	**4.93**
		L_{10} - L_{11}	-----	-1076.67	118	26	-770	638	55	-274	72	-143	-----	-----	-----	-----	-----	-----	-----	-----	0.881	0.050	0.94	Yes	0.872	0.122	1.00	Yes	1.00	**7.51**
		L_{11} - L_{12}	-----	-1257.50	-33	1064	-184	1396	-152	-69	-95	-287	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.189	1	Yes	0.796	0.185	0.99	Yes	1.00	**4.21**
		L_{12} - L_{13}	-----	-1248.53	1440	-99	557	-34	-214	-203	-130	-138	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.198	1	Yes	0.791	0.191	0.99	Yes	1.00	**2.43**
		L_{13} - L_{14}	-----	-1167.04	271	-354	-94	194	-163	-86	-43	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.950	0.038	0.99	Yes	0.939	0.056	1.00	Yes	1.00	**4.66**
		L_{14} - L_{15}	-----	-731.24	682	-61	210	-213	23	-24	-32	-141	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.133	0.99	Yes	0.844	0.151	1.00	Yes	1.00	**3.22**
		L_{15} - L_{16}	-----	-374.05	1218	-1615	253	-33	-144	-8	-28	46	-----	-----	-----	-----	-----	-----	-----	-----	0.575	0.205	0.79	Yes	0.570	0.428	1.00	Yes	1.00	**8.44**
		L_{16} - L_{17}	665.73	-264.35	370	37	-908	-342	55	-80	-11	4	0.766	0.232	1.00	Yes	0.455	0.151	0.61	Yes	0.361	0.235	0.6	Yes	0.358	0.219	0.58	Yes	1.00	**4.06**
		L_{17} - L_{18}	694.38	-127.40	118	-44	-618	-710	42	102	177	113	0.799	0.200	1.00	Yes	0.462	0.120	0.59	Yes	0.174	0.219	0.4	Yes	0.172	0.171	0.35	Yes	1.00	**4.24**
		L_{18} - L_{19}	452.18	-45.30	47	15	-844	65	52	-73	-119	239	0.692	0.304	1.00	Yes	0.422	0.204	0.63	Yes	0.082	0.182	0.27	Yes	0.082	0.253	0.34	Yes	1.00	**4.44**
		L_{19} - L_{20}	-----	-223.82	308	-357	-1981	1684	-236	-64	1344	366	-----	-----	-----	-----	-----	-----	-----	-----	0.406	0.568	0.98	Yes	0.403	0.594	1.00	Yes	1.00	**26.56**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression											
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-312.39	-1	20	-151	201	-71	-23	-725	-232	-----	-----	-----	-----	-----	-----	-----	-----	0.698	0.302	1	Yes	0.661	0.257	0.92	Yes	1.00	**2.35**
		$U_1 - L_1$	74.56	-335.51	56	-52	-218	225	107	41	-117	-49	0.134	0.322	0.46	Yes	0.074	0.177	0.26	Yes	0.733	0.114	0.85	Yes	0.710	0.288	1.00	Yes	1.00	**4.37**
		$U_2 - L_2$	133.54	-311.11	122	-135	-215	266	-198	-73	62	102	0.240	0.397	0.64	Yes	0.132	0.218	0.36	Yes	0.680	0.162	0.85	Yes	0.658	0.340	1.00	Yes	1.00	**5.84**
		$U_3 - L_3$	219.99	-270.39	185	-217	-311	334	-237	-222	12	256	0.396	0.501	0.90	Yes	0.218	0.276	0.50	Yes	0.592	0.173	0.77	Yes	0.572	0.427	1.00	Yes	1.00	**7.98**
		$U_4 - L_4$	-----	-374.36	159	-162	54	-55	-98	-43	-161	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.098	0.93	Yes	0.792	0.207	1.00	Yes	1.00	**2.92**
		$U_5 - L_5$	-----	-422.71	247	-260	59	-66	-96	-31	-151	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.106	0.88	Yes	0.729	0.264	1.00	Yes	1.00	**2.32**
		$U_6 - L_6$	-----	-536.41	248	-256	72	-72	-27	72	-135	0	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.084	0.9	Yes	0.769	0.224	1.00	Yes	1.00	**2.74**
		$U_7 - L_7$	-----	-433.52	301	-326	119	-132	-2	99	-131	46	-----	-----	-----	-----	-----	-----	-----	-----	0.725	0.124	0.85	Yes	0.669	0.321	1.00	Yes	1.00	**1.82**
		$U_8 - L_8$	-----	-1195.50	351	-431	-288	341	626	148	-1098	-381	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.128	1	Yes	0.829	0.080	0.91	Yes	1.00	**4.34**
		$U_9 - L_9$	-----	-643.48	-176	203	-403	476	-245	-171	-109	-347	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.154	0.93	Yes	0.727	0.265	1.00	Yes	1.00	**2.55**
		$U_{10} - L_{10}$	-----	-819.57	-115	115	-360	349	-203	-146	-318	-256	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.114	0.97	Yes	0.809	0.187	1.00	Yes	1.00	**3.73**
		$U_{11} - L_{11}$	-----	-668.34	-118	161	-371	463	-140	-32	-157	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.091	0.9	Yes	0.778	0.215	1.00	Yes	1.00	**3.28**
		$U_{12} - L_{12}$	-----	-535.70	-103	102	-299	307	-125	5	-99	63	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.090	0.87	Yes	0.735	0.263	1.00	Yes	1.00	**3.00**
		$U_{13} - L_{13}$	-----	-368.13	-64	78	-237	256	-106	45	-81	107	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.101	0.85	Yes	0.705	0.292	1.00	Yes	1.00	**2.29**
		$U_{14} - L_{14}$	-----	-248.32	-34	40	-124	144	-1340	-225	-1599	-122	-----	-----	-----	-----	-----	-----	-----	-----	0.554	0.443	1	Yes	0.525	0.184	0.71	Yes	1.00	**3.29**
		$U_{15} - L_{15}$	54.80	-298.21	278	-286	-45	44	-94	-227	-156	-89	0.099	0.432	0.54	Yes	0.054	0.238	0.30	Yes	0.668	0.181	0.85	Yes	0.631	0.366	1.00	Yes	1.00	**4.69**
		$U_{16} - L_{16}$	1.32	-323.16	234	-245	10	-14	-95	-219	-166	-111	0.002	0.377	0.38	Yes	0.001	0.207	0.21	Yes	0.728	0.165	0.9	Yes	0.684	0.314	1.00	Yes	1.00	**3.86**
		$U_{17} - L_{17}$	-----	-438.28	218	-237	43	-55	41	-87	-170	-100	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.131	0.96	Yes	0.756	0.240	1.00	Yes	1.00	**2.72**
		$U_{18} - L_{18}$	-----	-536.60	425	-443	116	-121	60	-10	-159	-64	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.094	0.88	Yes	0.746	0.251	1.00	Yes	1.00	**3.21**
		$U_{19} - L_{19}$	-----	-651.76	484	-510	130	-143	362	148	-69	3	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.148	0.97	Yes	0.759	0.236	1.00	Yes	1.00	**3.63**
		$U_{20} - L_{20}$	-----	-601.96	406	-506	164	-209	550	72	18	2	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.202	1	Yes	0.701	0.235	0.94	Yes	1.00	**2.72**
	Structure 2	$U_0 - L_0$	-----	-649.75	-94	156	-403	521	-274	-46	-791	-134	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.217	1	Yes	0.696	0.221	0.92	Yes	1.00	**2.44**
		$U_1 - L_1$	-----	-700.12	-87	92	-466	504	58	-71	-859	-278	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.193	1	Yes	0.750	0.214	0.97	Yes	1.00	**3.28**
		$U_2 - L_2$	-----	-594.26	-48	57	-447	474	134	52	-703	-195	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.176	0.98	Yes	0.757	0.243	1.00	Yes	1.00	**3.43**
		$U_3 - L_3$	-----	-486.73	-24	29	-214	237	41	146	-508	-166	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.166	1	Yes	0.763	0.215	0.98	Yes	1.00	**3.15**
		$U_4 - L_4$	29.58	-340.92	17	-9	-204	212	-42	101	40	238	0.053	0.340	0.40	Yes	0.029	0.187	0.22	Yes	0.773	0.127	0.9	Yes	0.721	0.271	1.00	Yes	1.00	**3.61**
		$U_5 - L_5$	111.85	-337.69	80	-77	-191	219	-97	0	5	246	0.201	0.351	0.56	Yes	0.111	0.193	0.31	Yes	0.763	0.128	0.9	Yes	0.715	0.280	1.00	Yes	1.00	**4.96**
		$U_6 - L_6$	245.03	-290.10	155	-172	-289	299	-130	-78	56	340	0.441	0.480	0.93	Yes	0.242	0.264	0.51	Yes	0.653	0.169	0.83	Yes	0.614	0.382	1.00	Yes	1.00	**8.95**
		$U_7 - L_7$	-----	-229.47	318	-371	51	-58	-1241	-338	-128	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.518	0.478	1	Yes	0.486	0.474	0.96	Yes	1.00	**12.71**
		$U_8 - L_8$	-----	-459.03	371	-383	113	-125	-642	-478	-166	-113	-----	-----	-----	-----	-----	-----	-----	-----	0.666	0.224	0.89	Yes	0.661	0.335	1.00	Yes	1.00	**3.38**
		$U_9 - L_9$	-----	-698.42	567	-592	202	-207	-984	-733	-220	-118	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.209	0.99	Yes	0.748	0.251	1.00	Yes	1.00	**4.38**
		$U_{10} - L_{10}$	-----	-785.54	565	-589	184	-194	-44	-97	-162	-77	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.097	0.88	Yes	0.734	0.260	1.00	Yes	1.00	**3.78**
		$U_{11} - L_{11}$	-----	-847.85	436	-468	196	-196	-81	34	-122	-13	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.078	0.94	Yes	0.793	0.207	1.00	Yes	1.00	**2.69**
		$U_{12} - L_{12}$	-----	-889.18	514	-492	176	-153	49	119	-58	59	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.086	0.94	Yes	0.771	0.221	1.00	Yes	1.00	**2.78**
		$U_{13} - L_{13}$	-----	-737.74	601	-602	264	-273	-22	99	-131	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.118	0.95	Yes	0.711	0.288	1.00	Yes	1.00	**2.55**
		$U_{14} - L_{14}$	-----	-1201.66	625	-599	-394	363	703	392	-832	-292	-----	-----	-----	-----	-----	-----	-----	-----	0.879	0.116	1	Yes	0.797	0.111	0.91	Yes	1.00	**4.76**
		$U_{15} - L_{15}$	-----	-702.91	-136	151	-655	657	-33	15	-183	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.156	0.94	Yes	0.678	0.314	1.00	Yes	1.00	**3.40**
		$U_{16} - L_{16}$	-----	-735.11	-83	49	-489	450	-134	-53	-292	-207	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.116	0.97	Yes	0.788	0.208	1.00	Yes	1.00	**2.89**
		$U_{17} - L_{17}$	-----	-639.67	-138	125	-539	530	-85	-42	-160	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.092	0.89	Yes	0.745	0.250	1.00	Yes	1.00	**2.48**
		$U_{18} - L_{18}$	-----	-576.79	-130	116	-392	418	-77	-39	-1159	-186	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.228	1	Yes	0.735	0.214	0.95	Yes	1.00	**2.36**
		$U_{19} - L_{19}$	-----	-482.71	-85	77	-284	288	-89	-43	106	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.726	0.093	0.82	Yes	0.721	0.277	1.00	Yes	1.00	**3.47**
		$U_{20} - L_{20}$	-----	-384.87	-55	54	-208	222	-124	-96	-149	76	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.103	0.9	Yes	0.737	0.253	1.00	Yes	1.00	**3.35**
		$U_{21} - L_{21}$	-----	-314.71	-27	37	-245	255	-438	-43	-132	96	-----	-----	-----	-----	-----	-----	-----	-----	0.711	0.201	0.92	Yes	0.666	0.326	1.00	Yes	1.00	**3.50**
		$U_{22} - L_{22}$	-----	-225.67	174	-197	-125	146	-1473	-476	244	97	-----	-----	-----	-----	-----	-----	-----	-----	0.508	0.486	1	Yes	0.477	0.252	0.73	Yes	1.00	**13.00**
		$U_{23} - L_{23}$	-----	-309.20	265	-270	24	-25	-97	-150	-91	34	-----	-----	-----	-----	-----	-----	-----	-----	0.698	0.146	0.85	Yes	0.654	0.345	1.00	Yes	1.00	**3.77**
		$U_{24} - L_{24}$	-----	-377.96	224	-237	44	-46	-84	-132	-132	23	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.110	0.89	Yes	0.724	0.270	1.00	Yes	1.00	**3.55**
		$U_{25} - L_{25}$	-----	-469.36	305	-302	81	-78	79	-27	-122	32	-----	-----	-----	-----	-----	-----	-----	-----	0.706	0.087	0.8	Yes	0.701	0.294	1.00	Yes	1.00	**3.05**
		$U_{26} - L_{26}$	-----	-600.38	403	-452	135	-134	-64	12	-154	22	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.085	0.89	Yes	0.765	0.231	1.00	Yes	1.00	**2.35**
		$U_{27} - L_{27}$	-----	-627.80	566	-566	157	-156	-99	54	-148	42	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.082	0.86	Yes	0.731	0.263	1.00	Yes	1.00	**2.43**
		$U_{28} - L_{28}$	-----	-723.17	521	-498	128	-107	2	132	-121	38	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.075	0.92	Yes	0.775	0.221	1.00	Yes	1.00	**2.77**
		$U_{29} - L_{29}$	-----	-699.34	677	-675	222	-242	112	118	-197	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.143	0.93	Yes	0.674	0.324	1.00	Yes	1.00	**2.92**
		$U_{30} - L_{30}$	-----	-1187.91	424	-430	-457	402	557	203	-807	-375	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.127	1	Yes	0.788	0.081	0.87	Yes	1.00	**4.18**
		$U_{31} - L_{31}$	-----	-739.54	-187	189	-582	583	-113	-43	-194	-140	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.147	0.98	Yes	0.713	0.279	1.00	Yes	1.00	**2.82**
		$U_{32} - L_{32}$	-----	-900.34	-123	89	-482	445	-182	-107	-291	-194	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.131	1	Yes	0.780	0.207	0.99	Yes	1.00	**3.04**
		$U_{33} - L_{33}$	-----	-773.42	-162	158	-396	408	-103	-19	-1167	-202	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.215	1	Yes	0.723	0.180	0.91	Yes	1.00	**2.72**
		$U_{34} - L_{34}$	-----	-813.87	-156	162	-504	521	-102	19	143	-157	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.079	0.89	Yes	0.761	0.230	1.00	Yes	1.00	**4.64**
		$U_{35} - L_{35}$	-----	-710.43	-180	186	-514	557	-105	35	48	293	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.084	0.88	Yes	0.761	0.236	1.00	Yes	1.00	**4.45**
		$U_{36} - L_{36}$	-----	-473.30	-103	116	-343	360	-103	47	-52	193	-----	-----	-----	-----	-----	-----	-----	-----	0.686	0.101	0.79	Yes	0.682	0.315	1.00	Yes	1.00	**3.47**
		$U_{37} - L_{37}$	-----	-284.36	-57	68	-114	135	-1217	-48	-149	-6	-----	-----	-----	-----	-----	-----	-----	-----	0.642	0.353	1	Yes	0.602	0.172	0.78	Yes	1.00	**3.30**
		$U_{38} - L_{38}$	219.85	-226.01	256	-257	-153	168	-936	-608	-117	-29	0.395	0.599	1.00	Yes	0.217	0.329	0.55	Yes	0.509	0.401	0.91	Yes	0.478	0.328	0.81	Yes	1.00	**7.03**
		$U_{39} - L_{39}$	126.80	-301.43	196	-218	-97	95	-640	-420	-150	-48	0.228	0.464	0.70	Yes	0.125	0.255	0.39	Yes	0.681	0.310	1	Yes	0.638	0.278	0.92	Yes	1.00	**4.59**
		$U_{40} - L_{40}$	33.97	-330.25	232	-233	-20	12	-57	-129	-129	-59	0.061	0.335	0.40	Yes	0.034	0.184	0.22	Yes	0.749	0.127	0.88	Yes	0.699	0.297	1.00	Yes	1.00	**3.09**
		$U_{41} - L_{41}$	-----	-487.97	236	-252	27	-34	-92	-112	-102	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.102	0.94	Yes	0.765	0.230	1.00	Yes	1.00	**2.94**
		$U_{42} - L_{42}$	-----	-581.27	492	-501	71	-81	-80	-23	-83	-55	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.080	0.86	Yes	0.741	0.256	1.00	Yes	1.00	**3.32**
		$U_{43} - L_{43}$	-----	-706.87	521	-554	107	-124	461	242	-58	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.145	0.96	Yes	0.758	0.235	1.00	Yes	1.00	**3.54**
		$U_{44} - L_{44}$	-----	-661.10	441	-566	179	-219	661	112	-60	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.200	1	Yes	0.708	0.240	0.95	Yes	1.00	**2.61**
	Structure 3	$U_0 - L_0$	-----	-576.81	-98	161	-365	457	-244	-32	-729	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.228	1	Yes	0.671	0.212	0.89	Yes	1.00	**2.70**
		$U_1 - L_1$	-----	-635.44	-104	111	-420	456	8	-73	-787	-209	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.205	1	Yes	0.740	0.212	0.96	Yes	1.00	**3.67**
		$U_2 - L_2$	-----	-545.67	-81	86	-390	420	93	37	-722	-182	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.189	0.99	Yes	0.759	0.238	1.00	Yes	1.00	**3.80**
		$U_3 - L_3$	-----	-448.80	-28	39	-192	215	6	124	-44	173	-----	-----	-----	-----	-----	-----	-----	-----	0.839	0.110	0.95	Yes	0.774	0.218	1.00	Yes	1.00	**3.32**
		$U_4 - L_4$	0.47	-332.71	-8	12	-216	230	-97	62	-155	189	0.001	0.349	0.35	Yes	0.000	0.192	0.20	Yes	0.750	0.102	0.86	Yes	0.704	0.294	1.00	Yes	1.00	**3.93**
		$U_5 - L_5$	49.47	-303.87	35	-33	-264	277	-115	23	-163	172	0.089	0.404	0.50	Yes	0.049	0.222	0.28	Yes	0.681	0.129	0.81	Yes	0.643	0.354	1.00	Yes	1.00	**4.64**
		$U_6 - L_6$	-----	-265.55	130	-143	34	-37	-1391	-232	-149	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.593	0.406	1	Yes	0.562	0.183	0.75	Yes	1.00	**3.53**
		$U_7 - L_7$	-----	-358.94	256	-271	61	-73	-187	-173	-163	-111	-----	-----	-----	-----	-----	-----	-----	-----	0.726	0.148	0.88	Yes	0.688	0.310	1.00	Yes	1.00	**2.39**
		$U_8 - L_8$	-----	-520.45	321	-327	103	-100	-218	-182	-196	-126	-----	-----	-----	-----	-----	-----	-----	-----	0.752	0.124	0.88	Yes	0.714	0.279	1.00	Yes	1.00	**3.04**
		$U_9 - L_9$	-----	-653.05	412	-503	123	-164	57	18	-154	-70	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.098	0.89	Yes	0.760	0.234	1.00	Yes	1.00	**3.07**
		$U_{10} - L_{10}$	-----	-805.18	384	-394	120	-125	136	179	-88	12	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.078	0.92	Yes	0.794	0.205	1.00	Yes	1.00	**3.49**
		$U_{11} - L_{11}$	-----	-631.60	425	-501	186	-216	-72	294	-39	68	-----	-----	-----	-----	-----	-----	-----	-----	0.753	0.123	0.88	Yes	0.713	0.279	1.00	Yes	1.00	**2.33**
		$U_{12} - L_{12}$	-----	-1223.46	362	-489	-263	271	838	321	-903	-208	-----	-----	-----	-----	-----	-----	-----	-----	0.883	0.111	1	Yes	0.848	0.091	0.94	Yes	1.00	**4.54**
		$U_{13} - L_{13}$	-----	-449.07	-106	117	-287	310	-140	-95	-162	-137	-----	-----	-----	-----	-----	-----	-----	-----	0.751	0.148	0.9	Yes	0.693	0.306	1.00	Yes	1.00	**2.26**
		$U_{14} - L_{14}$	-----	-549.92	-63	59	-234	233	-163	-132	-275	-211	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.128	0.97	Yes	0.789	0.205	1.00	Yes	1.00	**2.89**
		$U_{15} - L_{15}$	-----	-434.78	-51	56	-233	243	-141	-63	-199	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.115	0.91	Yes	0.750	0.247	1.00	Yes	1.00	**2.44**
		$U_{16} - L_{16}$	-----	-246.43	-52	52	-168	175	-162	-85	-1531	-444	-----	-----	-----	-----	-----	-----	-----	-----	0.542	0.455	1	Yes	0.521	0.224	0.75	Yes	1.00	**2.93**
		$U_{17} - L_{17}$	215.12	-266.24	324	-337	-205	234	-283	-320	-117	88	0.387	0.523	0.91	Yes	0.213	0.288	0.51	Yes	0.583	0.203	0.79	Yes	0.563	0.431	1.00	Yes	1.00	**7.89**
		$U_{18} - L_{18}$	136.52	-299.82	238	-282	-134	147	-281	-182	-109	-40	0.246	0.441	0.69	Yes	0.135	0.243	0.38	Yes	0.655	0.175	0.84	Yes	0.634	0.360	1.00	Yes	1.00	**5.75**
		$U_{19} - L_{19}$	44.98	-322.73	245	-247	-55	41	149	53	-169	-95	0.081	0.365	0.45	Yes	0.044	0.201	0.25	Yes	0.705	0.134	0.84	Yes	0.683	0.316	1.00	Yes	1.00	**3.46**
		$U_{20} - L_{20}$	-----	-332.75	162	-229	37	-37	343	110	-224	-72	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.205	0.95	Yes	0.704	0.293	1.00	Yes	1.00	**2.24**

Moment (Start) AI Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
Center Truss - Diagonals	Structure 1	$U_0 - L_1$	574.70	-111.80	20	-18	-116	66	-40	-3	-417	-198	0.754	0.240	1.00	Yes	0.455	0.132	0.59	Yes	0.191	0.177	0.37	Yes	0.173	0.135	0.31	Yes	1.00	**4.79**
		$U_1 - L_2$	428.72	-149.17	30	-23	-100	26	-89	-36	-320	-222	0.771	0.220	1.00	Yes	0.424	0.121	0.55	Yes	0.342	0.203	0.55	Yes	0.316	0.128	0.45	Yes	1.00	**5.08**
		$U_2 - L_3$	394.70	-272.34	59	-26	-113	17	147	110	-385	-493	0.710	0.288	1.00	Yes	0.390	0.158	0.55	Yes	0.627	0.325	0.96	Yes	0.576	0.145	0.73	Yes	1.00	**6.78**
		$U_3 - L_4$	57.31	-306.97	54	-11	-85	-119	95	255	-459	-384	0.103	0.284	0.39	Yes	0.057	0.156	0.22	Yes	0.702	0.289	1	Yes	0.650	0.152	0.81	Yes	1.00	**5.71**
		$U_4 - L_4$	554.43	-----	-5	61	-108	0	309	226	-95	-156	0.813	0.182	1.00	Yes	0.447	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.14**
		$U_4 - L_5$	558.09	-----	-17	157	-206	194	491	384	-1185	-111	0.660	0.332	1.00	Yes	0.363	0.183	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.84**
		$U_5 - L_6$	650.78	-----	-78	85	-282	262	297	170	371	-26	0.769	0.228	1.00	Yes	0.423	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.58**
		$U_6 - L_7$	617.85	-----	22	179	-95	302	528	264	78	152	0.730	0.268	1.00	Yes	0.402	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.92**
		$U_8 - L_9$	933.47	-----	80	229	-82	374	660	329	246	368	0.746	0.251	1.00	Yes	0.462	0.141	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.04**
		$U_9 - L_{10}$	1019.65	-----	-75	125	-321	265	112	138	170	319	0.815	0.184	1.00	Yes	0.505	0.103	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.46**
		$U_{10} - L_{11}$	1016.72	-----	-36	145	-277	191	33	30	-69	-11	0.859	0.137	1.00	Yes	0.532	0.076	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.25**
		$U_{11} - L_{12}$	812.93	-----	-60	80	-273	114	-101	-73	-405	-409	0.804	0.188	1.00	Yes	0.442	0.103	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.11**
		$U_{12} - L_{13}$	622.37	-----	-72	51	-192	167	-229	-195	-357	-330	0.759	0.237	1.00	Yes	0.477	0.134	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.84**
		$U_{13} - L_{14}$	427.41	-----	-27	10	-104	25	-210	-207	-307	-330	0.769	0.228	1.00	Yes	0.423	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.58**
		$U_{15} - L_{16}$	343.46	-166.90	31	-47	-159	-63	-3	-71	-593	-584	0.618	0.375	1.00	Yes	0.340	0.206	0.55	Yes	0.391	0.412	0.81	Yes	0.353	0.203	0.56	Yes	1.00	**6.94**
		$U_{16} - L_{15}$	400.26	-36.91	-5	-11	-134	92	-42	-82	-352	-351	0.720	0.273	1.00	Yes	0.396	0.150	0.55	Yes	0.087	0.188	0.28	Yes	0.078	0.171	0.25	Yes	1.00	**4.17**
		$U_{17} - L_{18}$	492.94	-----	-24	6	-145	84	-23	-94	-175	-555	0.723	0.276	1.00	Yes	0.398	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.83**
		$U_{18} - L_{17}$	637.48	-----	-94	56	-340	262	4	-43	-255	-225	0.754	0.239	1.00	Yes	0.415	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.41**
		$U_{19} - L_{18}$	694.26	-----	-100	64	-350	257	38	0	-366	-140	0.752	0.239	1.00	Yes	0.414	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.54**
		$U_{20} - L_{19}$	681.11	-----	-126	104	-363	312	-1	28	-458	-80	0.738	0.261	1.00	Yes	0.406	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
	Structure 2	$U_0 - L_1$	754.05	-----	-47	56	-380	363	-126	61	-493	-161	0.746	0.250	1.00	Yes	0.410	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		$U_1 - L_2$	738.90	-----	-66	41	-371	286	60	20	-630	-256	0.731	0.266	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.34**
		$U_2 - L_3$	607.40	-----	-38	27	-336	255	-63	-186	-468	-182	0.718	0.275	1.00	Yes	0.395	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.32**
		$U_3 - L_4$	551.90	-----	-12	-1	-180	118	-237	-222	-430	-200	0.736	0.254	1.00	Yes	0.405	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		$U_4 - L_5$	392.29	-77.06	21	-24	-132	88	-210	-149	-429	-398	0.706	0.293	1.00	Yes	0.388	0.161	0.55	Yes	0.190	0.226	0.42	Yes	0.163	0.169	0.34	Yes	1.00	**4.09**
		$U_5 - L_6$	361.92	-196.08	61	-59	-128	62	-102	-21	-607	-459	0.651	0.339	1.00	Yes	0.358	0.187	0.55	Yes	0.463	0.348	0.82	Yes	0.415	0.164	0.58	Yes	1.00	**5.76**
		$U_6 - L_7$	51.13	-276.13	55	-59	-85	-43	-79	16	-361	-967	0.083	0.349	0.44	Yes	0.046	0.192	0.24	Yes	0.591	0.404	1	Yes	0.529	0.097	0.63	Yes	1.00	**5.32**
		$U_8 - L_7$	583.93	-----	-58	47	-217	108	-26	-113	-286	-264	0.745	0.253	1.00	Yes	0.469	0.142	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.85**
		$U_8 - L_9$	694.14	-----	-118	142	-336	236	244	117	-284	-433	0.752	0.243	1.00	Yes	0.414	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.32**
		$U_{10} - L_9$	774.42	-----	-92	138	-322	198	286	190	-35	-562	0.766	0.234	1.00	Yes	0.421	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.94**
		$U_{11} - L_{10}$	855.52	-----	-100	165	-356	290	460	317	-29	-76	0.779	0.214	1.00	Yes	0.429	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.12**
		$U_{12} - L_{11}$	882.21	-----	-121	174	-349	352	314	204	256	163	0.804	0.192	1.00	Yes	0.442	0.106	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.43**
		$U_{13} - L_{12}$	752.32	-----	-180	174	-428	390	351	183	348	202	0.744	0.251	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.21**
		$U_{14} - L_{13}$	731.15	-----	-19	192	-267	426	511	166	1	135	0.723	0.274	1.00	Yes	0.398	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.18**
		$U_{14} - L_{15}$	629.09	-----	60	73	-209	377	26	-25	99	181	0.744	0.246	1.00	Yes	0.409	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		$U_{15} - L_{16}$	631.32	-----	-67	72	-379	352	9	34	195	173	0.746	0.250	1.00	Yes	0.411	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.75**
		$U_{16} - L_{17}$	726.26	-----	-52	105	-324	383	-6	14	99	77	0.787	0.212	1.00	Yes	0.433	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.65**
		$U_{17} - L_{18}$	689.13	-----	-53	104	-309	305	-27	6	-1	-5	0.815	0.180	1.00	Yes	0.448	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.56**
		$U_{18} - L_{19}$	565.55	-----	-28	102	-268	270	-18	6	-966	-67	0.669	0.328	1.00	Yes	0.368	0.180	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.28**
		$U_{19} - L_{20}$	574.54	-----	-15	68	-210	181	-1	57	-342	-304	0.733	0.258	1.00	Yes	0.403	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.06**
		$U_{20} - L_{21}$	419.10	-----	-16	35	-120	106	18	31	-319	-262	0.754	0.245	1.00	Yes	0.415	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.27**
		$U_{21} - L_{22}$	370.15	-----	0	24	-149	6	34	135	-465	-417	0.666	0.325	1.00	Yes	0.366	0.179	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.00**
		$U_{23} - L_{22}$	376.25	-7.98	11	15	-161	5	256	244	-316	-394	0.677	0.319	1.00	Yes	0.372	0.176	0.55	Yes	0.019	0.224	0.25	Yes	0.017	0.205	0.23	Yes	1.00	**5.52**
		$U_{24} - L_{23}$	428.67	-----	-8	26	-123	104	229	142	-168	-204	0.771	0.223	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.57**
		$U_{25} - L_{24}$	550.85	-----	-14	57	-200	146	251	163	-47	-563	0.702	0.294	1.00	Yes	0.386	0.168	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.48**
		$U_{26} - L_{25}$	656.35	-----	-29	102	-288	262	285	196	-12	-90	0.776	0.215	1.00	Yes	0.427	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.53**
		$U_{27} - L_{26}$	660.57	-----	-64	108	-293	286	264	160	230	102	0.781	0.214	1.00	Yes	0.430	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.33**
		$U_{28} - L_{27}$	699.63	-----	-79	125	-316	369	262	179	272	177	0.758	0.234	1.00	Yes	0.417	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.40**
		$U_{29} - L_{28}$	613.94	-----	-116	114	-360	330	303	143	333	-81	0.726	0.264	1.00	Yes	0.399	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.15**
		$U_{30} - L_{29}$	604.40	-----	22	132	-196	348	460	111	7	146	0.715	0.281	1.00	Yes	0.393	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.52**
		$U_{30} - L_{31}$	764.13	-----	23	127	-284	469	126	32	15	143	0.756	0.239	1.00	Yes	0.416	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		$U_{31} - L_{32}$	771.98	-----	-122	124	-450	404	53	61	180	145	0.764	0.236	1.00	Yes	0.420	0.130	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.72**
		$U_{32} - L_{33}$	916.83	-----	-80	141	-359	364	9	29	28	32	0.835	0.159	1.00	Yes	0.459	0.087	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.89**
		$U_{33} - L_{34}$	875.06	-----	-65	149	-364	269	7	39	-344	-176	0.797	0.202	1.00	Yes	0.438	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.90**
		$U_{34} - L_{35}$	775.38	-----	-70	144	-336	203	-4	20	-430	-474	0.767	0.227	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.09**
		$U_{35} - L_{36}$	675.33	-----	-114	143	-332	234	-62	-16	-545	-440	0.731	0.259	1.00	Yes	0.402	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.53**
		$U_{36} - L_{37}$	520.90	-----	-59	55	-190	105	-215	-206	-332	-790	0.664	0.331	1.00	Yes	0.418	0.190	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.27**
		$U_{38} - L_{37}$	141.54	-357.72	80	-69	-132	-35	101	103	-380	-331	0.230	0.249	0.48	Yes	0.127	0.137	0.27	Yes	0.773	0.223	1	Yes	0.685	0.150	0.84	Yes	1.00	**7.25**
		$U_{39} - L_{38}$	385.73	-223.72	68	-65	-125	63	77	7	-254	-475	0.694	0.297	1.00	Yes	0.382	0.163	0.55	Yes	0.533	0.229	0.77	Yes	0.473	0.160	0.64	Yes	1.00	**5.50**
		$U_{40} - L_{39}$	369.46	-85.17	19	-27	-127	69	28	-12	-50	-598	0.664	0.335	1.00	Yes	0.365	0.184	0.55	Yes	0.204	0.222	0.43	Yes	0.180	0.162	0.35	Yes	1.00	**3.31**
		$U_{41} - L_{40}$	586.77	-----	-12	-5	-191	141	27	-5	-171	-188	0.782	0.213	1.00	Yes	0.430	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.25**
		$U_{42} - L_{41}$	647.71	-----	-51	30	-348	269	-5	2	-167	-140	0.766	0.227	1.00	Yes	0.421	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.32**
		$U_{43} - L_{42}$	776.39	-----	-71	44	-391	311	-18	-44	-326	-88	0.768	0.230	1.00	Yes	0.422	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.65**
		$U_{44} - L_{43}$	770.58	-----	-124	105	-376	367	34	-10	-403	-19	0.762	0.235	1.00	Yes	0.419	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.49**
	Structure 3	$U_0 - L_1$	656.60	-----	-64	67	-370	309	-137	43	-569	-184	0.711	0.283	1.00	Yes	0.391	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.54**
		$U_1 - L_2$	661.73	-----	-85	52	-331	234	35	10	-686	-273	0.717	0.282	1.00	Yes	0.394	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_2 - L_3$	593.53	-----	-68	40	-339	244	-75	-172	-576	-260	0.702	0.296	1.00	Yes	0.386	0.163	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.00**
		$U_3 - L_4$	505.87	-----	-15	3	-151	103	-217	-204	-417	-397	0.742	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.61**
		$U_4 - L_5$	381.77	-19.94	-6	-6	-127	91	-227	-160	-508	-401	0.687	0.309	1.00	Yes	0.378	0.170	0.55	Yes	0.047	0.224	0.28	Yes	0.042	0.162	0.21	Yes	1.00	**3.95**
		$U_5 - L_6$	326.36	-145.57	27	-45	-148	-66	-169	-98	-746	-603	0.587	0.406	1.00	Yes	0.323	0.223	0.55	Yes	0.341	0.469	0.81	Yes	0.308	0.189	0.50	Yes	1.00	**6.54**
		$U_7 - L_6$	435.61	-----	-23	6	-105	23	-27	-144	-130	-273	0.783	0.213	1.00	Yes	0.431	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.77**
		$U_8 - L_7$	641.42	-----	-66	62	-196	171	71	-14	-164	-230	0.782	0.216	1.00	Yes	0.492	0.121	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.02**
		$U_8 - L_9$	788.78	-----	-57	67	-279	83	246	130	-118	-586	0.780	0.217	1.00	Yes	0.429	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.54**
		$U_{10} - L_9$	981.47	-----	-47	123	-250	190	392	305	29	-76	0.829	0.167	1.00	Yes	0.513	0.094	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.07**
		$U_{11} - L_{10}$	967.75	-----	-95	133	-305	249	491	306	370	647	0.774	0.218	1.00	Yes	0.479	0.124	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		$U_{12} - L_{11}$	933.02	-----	55	216	-81	367	678	331	152	306	0.746	0.250	1.00	Yes	0.462	0.141	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.73**
		$U_{12} - L_{13}$	612.89	-----	40	197	-96	300	565	257	101	175	0.725	0.274	1.00	Yes	0.399	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.72**
		$U_{13} - L_{14}$	663.67	-----	-62	115	-284	291	152	197	236	212	0.785	0.209	1.00	Yes	0.432	0.115	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		$U_{14} - L_{15}$	695.08	-----	-15	147	-189	233	198	194	-182	-213	0.822	0.171	1.00	Yes	0.452	0.094	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.79**
		$U_{15} - L_{16}$	560.35	-----	-6	68	-112	-3	138	174	-272	-218	0.822	0.177	1.00	Yes	0.452	0.097	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.34**
		$U_{17} - L_{16}$	75.44	-327.08	58	-5	-95	-117	267	290	-312	-362	0.136	0.254	0.40	Yes	0.075	0.140	0.22	Yes	0.748	0.244	1	Yes	0.692	0.150	0.85	Yes	1.00	**6.18**
		$U_{18} - L_{17}$	24.75	-223.47	41	-27	-87	-25	96	157	-1326	-189	0.045	0.495	0.54	Yes	0.024	0.272	0.30	Yes	0.514	0.483	1	Yes	0.473	0.111	0.59	Yes	1.00	**4.68**
		$U_{19} - L_{18}$	414.02	-118.19	27	-21	-89	0	38	-1	-232	-458	0.745	0.246	1.00	Yes	0.410	0.135	0.55	Yes	0.271	0.208	0.48	Yes	0.250	0.113	0.37	Yes	1.00	**3.80**
		$U_{20} - L_{19}$	613.59	-69.25	-20	-1	-78	63	31	-18	-377	-194	0.805	0.186	1.00	Yes	0.486	0.102	0.59	Yes	0.118	0.141	0.26	Yes	0.107	0.091	0.20	Yes	1.00	**3.98**

Moment (Start) AI Inventory

Inventory Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Upper Chord	Structure 1	U_0 - U_1	-----	-578.50	870	-914	-601	-15	675	-851	-125	122	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.123	0.92	Yes	0.780	0.217	1.00	Yes	1.00	**6.49**
		U_1 - U_2	59.24	-508.72	-95	133	-321	-701	-164	159	-81	-505	0.068	0.252	0.32	Yes	0.047	0.172	0.22	Yes	0.692	0.298	1	Yes	0.686	0.167	0.86	Yes	1.00	**2.84**
		U_2 - U_3	281.28	-577.87	-49	406	-756	-196	-126	187	559	-608	0.322	0.282	0.61	Yes	0.217	0.186	0.41	Yes	0.786	0.204	1	Yes	0.779	0.180	0.96	Yes	1.00	**3.85**
		U_3 - U_4	695.38	-570.46	250	560	-531	-289	-255	4	-245	-391	0.797	0.199	1.00	Yes	0.547	0.136	0.69	Yes	0.776	0.185	0.97	Yes	0.769	0.133	0.91	Yes	1.00	**5.64**
		U_4 - U_5	684.06	-546.87	307	532	-611	-163	-117	7	-365	-169	0.784	0.207	1.00	Yes	0.538	0.142	0.68	Yes	0.744	0.206	0.95	Yes	0.737	0.145	0.89	Yes	1.00	**5.50**
		U_5 - U_6	737.97	-70.47	315	527	-355	308	95	140	-106	-170	0.846	0.154	1.00	Yes	0.571	0.101	0.68	Yes	0.096	0.149	0.25	Yes	0.095	0.125	0.23	Yes	1.00	**4.20**
		U_6 - U_7	892.58	-----	435	210	-18	75	298	355	-97	11	0.854	0.141	1.00	Yes	0.597	0.097	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		U_7 - U_8	935.73	-----	135	886	-572	1732	836	777	250	506	0.648	0.347	1.00	Yes	0.452	0.237	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.66**
		U_8 - U_9	804.76	-----	1595	-569	803	-262	589	49	279	574	0.659	0.340	1.00	Yes	0.451	0.231	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.02**
		U_9 - U_{10}	643.20	-----	837	-798	93	-18	708	-500	61	143	0.698	0.301	1.00	Yes	0.473	0.202	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**15.62**
		U_{10} - U_{11}	-----	-569.24	485	-1032	116	-481	310	-778	348	293	-----	-----	-----	-----	-----	-----	-----	-----	0.733	0.267	1	Yes	0.726	0.231	0.96	Yes	1.00	**6.15**
		U_{11} - U_{12}	-----	-915.74	139	-216	-16	-804	12	93	81	-231	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.126	1	Yes	0.859	0.133	1.00	Yes	1.00	**2.11**
		U_{12} - U_{13}	-----	-1267.85	-59	-271	-497	-598	75	4	731	-461	-----	-----	-----	-----	-----	-----	-----	-----	0.857	0.135	1	Yes	0.847	0.083	0.93	Yes	1.00	**2.53**
		U_{13} - U_{14}	-----	-1439.29	-195	-501	-551	-1108	-47	-13	-53	-279	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.164	1	Yes	0.825	0.122	0.95	Yes	1.00	**2.63**
		U_{14} - U_{15}	-----	-1424.79	-404	-291	-1056	-668	35	-276	-170	-276	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.165	1	Yes	0.817	0.116	0.94	Yes	1.00	**2.57**
		U_{15} - U_{16}	-----	-1473.64	-198	-465	-733	-771	-109	-417	-316	-280	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.141	1	Yes	0.845	0.085	0.93	Yes	1.00	**2.94**
		U_{16} - U_{17}	-----	-1448.25	-396	-203	-1020	-424	-134	-288	-194	-206	-----	-----	-----	-----	-----	-----	-----	-----	0.839	0.155	1	Yes	0.830	0.113	0.95	Yes	1.00	**3.56**
		U_{17} - U_{18}	-----	-1054.79	-255	-60	-656	10	-112	72	-133	-16	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.157	1	Yes	0.825	0.107	0.94	Yes	1.00	**3.24**
		U_{18} - U_{19}	-----	-705.36	-245	15	-653	119	366	-144	195	-244	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.195	1	Yes	0.794	0.131	0.93	Yes	1.00	**3.28**
		U_{19} - U_{20}	-----	-600.70	-205	-81	-1058	-216	-55	-116	-133	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.682	0.309	1	Yes	0.676	0.213	0.89	Yes	1.00	**8.78**
	Structure 2	U_0 - U_1	-----	-544.26	2078	-1764	-731	-424	1281	-512	-432	699	-----	-----	-----	-----	-----	-----	-----	-----	0.647	0.244	0.9	Yes	0.643	0.353	1.00	Yes	1.00	**6.12**
		U_1 - U_2	-----	-796.81	-45	-580	-280	-874	285	633	249	-312	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.219	1	Yes	0.769	0.133	0.91	Yes	1.00	**4.23**
		U_2 - U_3	-----	-1204.99	-78	-714	-262	-876	-238	-353	278	-605	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.134	1	Yes	0.855	0.089	0.95	Yes	1.00	**6.67**
		U_3 - U_4	-----	-1427.74	-518	-501	-894	-1284	-122	-26	-9	-343	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.176	1	Yes	0.813	0.114	0.93	Yes	1.00	**2.34**
		U_4 - U_5	-----	-1558.54	-565	-511	-1106	-1386	-130	-71	10	-619	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.189	1	Yes	0.800	0.115	0.92	Yes	1.00	**2.29**
		U_5 - U_6	-----	-1610.73	-547	49	-1260	-836	-197	-39	-220	-439	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.157	1	Yes	0.827	0.104	0.94	Yes	1.00	**2.30**
		U_6 - U_7	-----	-1404.97	-298	-195	-1075	-1231	-170	-88	-188	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.188	1	Yes	0.800	0.110	0.91	Yes	1.00	**2.11**
		U_7 - U_8	-----	-1407.74	-334	-180	-1392	-869	-79	-174	-263	-379	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.189	1	Yes	0.802	0.124	0.93	Yes	1.00	**2.13**
		U_8 - U_9	-----	-1231.62	-323	243	-1217	-312	-15	-192	-252	-309	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.154	1	Yes	0.835	0.129	0.97	Yes	1.00	**2.48**
		U_9 - U_{10}	354.02	-951.71	-40	583	-1241	-27	-131	-244	-483	-487	0.260	0.204	0.47	Yes	0.176	0.138	0.32	Yes	0.826	0.169	1	Yes	0.821	0.151	0.98	Yes	1.00	**3.18**
		U_{10} - U_{11}	874.23	-622.18	392	645	-1105	-42	-216	-113	-818	-356	0.738	0.256	1.00	Yes	0.503	0.168	0.68	Yes	0.622	0.213	0.84	Yes	0.618	0.156	0.78	Yes	1.00	**4.40**
		U_{11} - U_{12}	971.50	-----	241	677	-863	507	21	29	-425	-438	0.821	0.175	1.00	Yes	0.551	0.117	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.59**
		U_{12} - U_{13}	1298.62	-----	508	54	-324	-111	314	517	-606	-55	0.877	0.122	1.00	Yes	0.625	0.084	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.10**
		U_{13} - U_{14}	1215.74	-----	-9	1831	-1192	3506	845	1030	208	726	0.598	0.395	1.00	Yes	0.423	0.260	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.68**
		U_{14} - U_{15}	1296.16	-----	3247	-426	1846	-226	805	444	561	696	0.637	0.356	1.00	Yes	0.451	0.234	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.09**
		U_{15} - U_{16}	1463.44	-----	127	-184	-107	-599	457	389	515	-212	0.885	0.112	1.00	Yes	0.629	0.076	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.32**
		U_{16} - U_{17}	1076.75	-----	1003	-345	346	-127	418	-401	341	735	0.793	0.203	1.00	Yes	0.528	0.134	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.51**
		U_{17} - U_{18}	715.46	-----	1075	-697	132	-167	336	-228	357	641	0.718	0.276	1.00	Yes	0.478	0.183	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.91**
		U_{18} - U_{19}	848.24	-304.63	591	358	110	-467	-66	196	177	-316	0.851	0.147	1.00	Yes	0.559	0.094	0.66	Yes	0.362	0.116	0.48	Yes	0.360	0.100	0.47	Yes	1.00	**4.67**
		U_{19} - U_{20}	399.44	-728.37	276	176	-213	-934	-109	128	-51	-388	0.375	0.202	0.58	Yes	0.248	0.133	0.39	Yes	0.809	0.189	1	Yes	0.804	0.150	0.96	Yes	1.00	**2.77**
		U_{20} - U_{21}	349.36	-895.52	157	81	-764	-514	-69	48	581	-509	0.271	0.174	0.45	Yes	0.190	0.115	0.31	Yes	0.823	0.171	1	Yes	0.817	0.111	0.93	Yes	1.00	**2.99**
		U_{21} - U_{22}	301.98	-880.90	28	83	-581	-804	-191	-54	-92	-249	0.234	0.144	0.38	Yes	0.166	0.096	0.27	Yes	0.810	0.184	1	Yes	0.804	0.117	0.93	Yes	1.00	**2.90**
		U_{22} - U_{23}	298.29	-874.42	89	19	-879	-647	-92	-138	-195	-185	0.231	0.149	0.38	Yes	0.164	0.099	0.27	Yes	0.804	0.196	1	Yes	0.798	0.127	0.93	Yes	1.00	**2.88**
		U_{23} - U_{24}	447.40	-890.85	145	206	-872	-301	10	-46	-359	-153	0.347	0.166	0.52	Yes	0.243	0.108	0.36	Yes	0.819	0.178	1	Yes	0.813	0.126	0.94	Yes	1.00	**3.65**
		U_{24} - U_{25}	808.32	-551.44	430	466	-945	96	27	-20	-609	-294	0.758	0.234	1.00	Yes	0.502	0.153	0.66	Yes	0.612	0.207	0.82	Yes	0.608	0.151	0.76	Yes	1.00	**5.51**
		U_{25} - U_{26}	799.29	-364.58	358	547	-755	445	30	-10	-437	-275	0.802	0.192	1.00	Yes	0.526	0.123	0.65	Yes	0.433	0.172	0.61	Yes	0.431	0.128	0.56	Yes	1.00	**4.87**
		U_{26} - U_{27}	845.70	-----	398	417	-442	433	22	65	-467	-166	0.849	0.143	1.00	Yes	0.565	0.095	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.26**
		U_{27} - U_{28}	1128.40	-----	334	599	-624	976	350	404	-425	-306	0.831	0.167	1.00	Yes	0.553	0.110	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.62**
		U_{28} - U_{29}	1139.81	-----	1356	365	-792	-299	1029	1749	-920	-1028	0.689	0.302	1.00	Yes	0.490	0.208	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.72**
		U_{29} - U_{30}	1296.07	-----	-5	1711	-323	3085	814	1034	529	1056	0.637	0.358	1.00	Yes	0.451	0.235	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.99**
		U_{30} - U_{31}	1257.30	-----	3403	-936	1914	-527	770	102	873	846	0.618	0.375	1.00	Yes	0.438	0.246	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.31**
		U_{31} - U_{32}	1257.68	-----	85	384	-342	29	197	385	989	9	0.849	0.143	1.00	Yes	0.605	0.100	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.12**
		U_{32} - U_{33}	900.18	-179.37	1002	-376	143	-590	336	-517	342	740	0.760	0.232	1.00	Yes	0.511	0.154	0.67	Yes	0.179	0.164	0.35	Yes	0.178	0.141	0.32	Yes	1.00	**5.51**
		U_{33} - U_{34}	997.55	-577.88	682	400	-146	-783	-29	291	248	329	0.843	0.151	1.00	Yes	0.573	0.098	0.68	Yes	0.578	0.082	0.67	Yes	0.574	0.110	0.69	Yes	1.00	**5.59**
		U_{34} - U_{35}	273.68	-1006.23	505	-92	-163	-1014	46	77	345	-519	0.201	0.180	0.39	Yes	0.136	0.121	0.26	Yes	0.873	0.121	1	Yes	0.868	0.123	1.00	Yes	1.00	**3.35**
		U_{35} - U_{36}	-----	-1263.96	114	-452	-321	-1090	-15	93	78	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.130	1	Yes	0.857	0.116	0.98	Yes	1.00	**2.09**
		U_{36} - U_{37}	-----	-1441.71	-284	-307	-877	-1288	-18	-118	11	-256	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.168	1	Yes	0.821	0.115	0.94	Yes	1.00	**1.92**
		U_{37} - U_{38}	-----	-1428.23	-196	-420	-1183	-1065	-94	-194	-171	-340	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.178	1	Yes	0.813	0.105	0.92	Yes	1.00	**1.88**
		U_{38} - U_{39}	-----	-1640.26	-125	-615	-939	-1213	14	-201	-228	-326	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.148	1	Yes	0.842	0.101	0.95	Yes	1.00	**2.22**
		U_{39} - U_{40}	-----	-1586.40	-578	-559	-1416	-929	23	-61	-287	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.173	1	Yes	0.814	0.117	0.94	Yes	1.00	**2.33**
		U_{40} - U_{41}	-----	-1470.34	-492	-481	-1176	-824	107	-148	-110	-191	-----	-----	-----	-----	-----	-----	-----	-----	0.843	0.154	1	Yes	0.837	0.105	0.95	Yes	1.00	**2.57**
		U_{41} - U_{42}	-----	-1223.75	-396	-137	-1134	-33	71	-23	-187	-148	-----	-----	-----	-----	-----	-----	-----	-----	0.874	0.122	1	Yes	0.868	0.116	0.99	Yes	1.00	**3.10**
		U_{42} - U_{43}	-----	-885.56	-255	-28	-903	71	192	-195	-178	-233	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.129	1	Yes	0.855	0.137	1.00	Yes	1.00	**3.65**
		U_{43} - U_{44}	-----	-654.08	-118	-268	-1332	7	-128	-128	-112	109	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.217	1	Yes	0.772	0.226	1.00	Yes	1.00	**7.70**
	Structure 3	U_0 - U_1	-----	-542.57	1921	-1488	-524	-515	1356	-861	-390	733	-----	-----	-----	-----	-----	-----	-----	-----	0.616	0.291	0.91	Yes	0.610	0.386	1.00	Yes	1.00	**7.56**
		U_1 - U_2	-----	-726.97	-63	-695	-85	-376	186	-334	179	392	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.166	1	Yes	0.818	0.140	0.96	Yes	1.00	**2.97**
		U_2 - U_3	-----	-1086.48	34	-597	-97	-387	142	-692	239	165	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.133	1	Yes	0.850	0.097	0.95	Yes	1.00	**2.87**
		U_3 - U_4	-----	-1372.57	-210	-397	-458	-1278	-156	-146	-214	-560	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.201	1	Yes	0.787	0.141	0.93	Yes	1.00	**2.67**
		U_4 - U_5	-----	-1429.56	-435	-167	-1075	-472	-100	-65	534	-634	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.163	1	Yes	0.820	0.119	0.94	Yes	1.00	**2.63**
		U_5 - U_6	-----	-1412.60	-255	-373	-618	-1060	-179	-149	-148	-361	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.176	1	Yes	0.810	0.117	0.93	Yes	1.00	**2.79**
		U_6 - U_7	-----	-1397.86	-493	-157	-1228	-512	-121	-300	-260	-365	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.182	1	Yes	0.801	0.135	0.94	Yes	1.00	**2.75**
		U_7 - U_8	-----	-1217.72	-237	24	-701	-206	-106	-333	-368	-486	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.168	1	Yes	0.813	0.097	0.92	Yes	1.00	**3.05**
		U_8 - U_9	-----	-847.14	-139	237	-658	82	-231	-205	-403	-262	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.192	1	Yes	0.795	0.109	0.91	Yes	1.00	**2.98**
		U_9 - U_{10}	256.68	-549.92	-85	360	-919	314	-20	-42	-199	-294	0.278	0.253	0.54	Yes	0.186	0.163	0.35	Yes	0.708	0.287	1	Yes	0.702	0.206	0.91	Yes	1.00	**4.85**
		U_{10} - U_{11}	751.73	-----	352	245	-381	314	79	242	-568	-189	0.815	0.177	1.00	Yes	0.552	0.118	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.29**
		U_{11} - U_{12}	805.91	-----	-128	860	-687	1547	517	626	52	375	0.660	0.336	1.00	Yes	0.452	0.229	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.86**
		U_{12} - U_{13}	955.82	-----	1813	-409	891	-157	239	116	461	560	0.662	0.332	1.00	Yes	0.462	0.226	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.08**
		U_{13} - U_{14}	859.34	-----	219	367	12	-467	-98	374	-36	-570	0.822	0.178	1.00	Yes	0.574	0.122	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.11**
		U_{14} - U_{15}	640.25	-278.29	457	222	26	-366	-54	261	904	-611	0.734	0.261	1.00	Yes	0.495	0.174	0.67	Yes	0.379	0.177	0.56	Yes	0.375	0.109	0.49	Yes	1.00	**4.21**
		U_{15} - U_{16}	503.30	-628.71	395	235	-237	-589	-69	277	46	5	0.577	0.187	0.77	Yes	0.396	0.128	0.53	Yes	0.855	0.140	1	Yes	0.848	0.140	0.99	Yes	1.00	**5.03**
		U_{16} - U_{17}	621.41	-636.64	568	171	-517	-491	268	-4	145	-185	0.712	0.180	0.90	Yes	0.489	0.124	0.62	Yes	0.866	0.101	0.97	Yes	0.858	0.135	1.00	Yes	1.00	**6.24**
		U_{17} - U_{18}	211.77	-642.02	333	-144	-408	-528	87	54	-48	-86	0.243	0.140	0.39	Yes	0.164	0.091	0.26	Yes	0.874	0.090	0.97	Yes	0.866	0.125	1.00	Yes	1.00	**4.26**
		U_{18} - U_{19}	57.72	-583.95	82	-64	-640	-153	224	-193	101	-286	0.066	0.201	0.27	Yes	0.045	0.137	0.19	Yes	0.795	0.200	1	Yes	0.787	0.152	0.94	Yes	1.00	**4.18**
		U_{19} - U_{20}	93.83	-608.10	191	-364	-587	-551	-143	-113	-168	-59	0.108	0.168	0.28	Yes	0.074	0.115	0.19	Yes	0.827	0.168	1	Yes	0.820	0.139	0.96	Yes	1.00	**8.39**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Lower Chord	Structure 1	L_0 - L_1	29.06	-222.47	699	-1163	-309	177	-561	-2061	64	235	0.044	0.791	0.84	Yes	0.026	0.471	0.50	Yes	0.404	0.596	1	Yes	0.401	0.349	0.75	Yes	1.00	**19.86**
		L_1 - L_2	377.72	-50.18	87	-795	-20	63	-812	463	396	-180	0.578	0.413	1.00	Yes	0.353	0.269	0.63	Yes	0.091	0.237	0.33	Yes	0.090	0.239	0.33	Yes	1.00	**3.94**
		L_2 - L_3	637.69	-170.73	-10	109	-729	-507	-194	133	208	-510	0.734	0.258	1.00	Yes	0.424	0.153	0.58	Yes	0.233	0.231	0.47	Yes	0.231	0.176	0.41	Yes	1.00	**3.61**
		L_3 - L_4	666.81	-403.72	49	442	-538	-351	347	-280	-639	288	0.767	0.233	1.00	Yes	0.456	0.146	0.61	Yes	0.552	0.148	0.7	Yes	0.546	0.130	0.68	Yes	1.00	**4.35**
		L_4 - L_5	-----	-570.39	109	466	-338	329	-86	218	220	48	-----	-----	-----	-----	-----	-----	-----	-----	0.877	0.114	1	Yes	0.869	0.123	1.00	Yes	1.00	**2.38**
		L_5 - L_6	-----	-746.45	126	588	-118	377	189	-208	81	-184	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.122	1	Yes	0.861	0.130	1.00	Yes	1.00	**2.24**
		L_6 - L_7	-----	-1175.43	219	-91	-160	225	-242	250	45	291	-----	-----	-----	-----	-----	-----	-----	-----	0.957	0.038	1	Yes	0.946	0.035	0.99	Yes	1.00	**3.59**
		L_7 - L_8	-----	-1231.82	-24	695	-79	1322	446	286	369	467	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.204	1	Yes	0.780	0.175	0.96	Yes	1.00	**2.26**
		L_8 - L_9	-----	-1248.96	1223	-65	705	-34	483	292	243	352	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.193	1	Yes	0.791	0.162	0.96	Yes	1.00	**2.06**
		L_9 - L_{10}	-----	-1093.94	696	-751	165	81	-126	161	449	-267	-----	-----	-----	-----	-----	-----	-----	-----	0.890	0.058	0.95	Yes	0.881	0.118	1.00	Yes	1.00	**6.72**
		L_{10} - L_{11}	112.08	-536.52	682	-641	184	-287	-137	-630	-261	151	0.145	0.291	0.44	Yes	0.085	0.173	0.26	Yes	0.825	0.167	1	Yes	0.817	0.181	1.00	Yes	1.00	**6.52**
		L_{11} - L_{12}	412.59	-----	589	-1080	233	-327	-987	823	96	-43	0.534	0.459	1.00	Yes	0.321	0.294	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.97**
		L_{12} - L_{13}	1059.94	-----	46	-161	-426	-547	-157	122	-49	-504	0.836	0.156	1.00	Yes	0.535	0.095	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.21**
		L_{13} - L_{14}	1330.00	-----	182	-526	-108	-1242	147	17	-554	458	0.782	0.217	1.00	Yes	0.507	0.134	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.20**
		L_{14} - L_{15}	1608.33	-----	-495	-169	-1488	-408	-184	94	452	19	0.786	0.211	1.00	Yes	0.511	0.128	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.83**
		L_{15} - L_{16}	1735.60	-----	-278	-435	-928	-1042	-1	-186	-1	339	0.848	0.149	1.00	Yes	0.544	0.088	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.36**
		L_{16} - L_{17}	1279.63	-----	-416	55	-1128	108	-123	174	190	-206	0.809	0.184	1.00	Yes	0.525	0.113	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.01**
		L_{17} - L_{18}	945.95	-----	-225	-17	-669	98	82	-115	-306	-154	0.824	0.168	1.00	Yes	0.527	0.102	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.21**
		L_{18} - L_{19}	456.29	-----	-255	231	-848	476	-165	124	-189	89	0.698	0.294	1.00	Yes	0.472	0.183	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.01**
		L_{19} - L_{20}	56.81	-248.35	-168	57	-1343	820	143	32	-35	-8	0.096	0.472	0.57	Yes	0.059	0.283	0.35	Yes	0.498	0.493	1	Yes	0.494	0.438	0.94	Yes	1.00	**13.25**
	Structure 2	L_0 - L_1	61.65	-401.61	525	-1728	-70	-111	-416	-1443	34	120	0.075	0.589	0.67	Yes	0.045	0.369	0.42	Yes	0.577	0.421	1	Yes	0.574	0.352	0.93	Yes	1.00	**10.92**
		L_1 - L_2	450.05	-----	596	-1475	126	-232	-887	726	169	-114	0.547	0.446	1.00	Yes	0.325	0.282	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.77**
		L_2 - L_3	1041.31	-----	93	-972	-106	-359	293	-123	-167	165	0.821	0.172	1.00	Yes	0.538	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		L_3 - L_4	1308.01	-----	42	-941	-135	-1469	315	-16	-606	655	0.769	0.224	1.00	Yes	0.518	0.140	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.29**
		L_4 - L_5	1806.84	-----	-416	-346	-1091	-1236	-96	157	505	83	0.842	0.151	1.00	Yes	0.558	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.61**
		L_5 - L_6	1885.15	-----	-204	-420	-725	-1747	197	-96	-140	470	0.809	0.184	1.00	Yes	0.543	0.113	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.26**
		L_6 - L_7	1894.85	-----	-526	-174	-1809	-1374	-160	221	360	-560	0.802	0.194	1.00	Yes	0.533	0.115	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.95**
		L_7 - L_8	1390.54	-58.39	-289	415	-1341	-409	226	-138	-599	336	0.797	0.197	1.00	Yes	0.524	0.118	0.65	Yes	0.040	0.146	0.19	Yes	0.039	0.148	0.19	Yes	1.00	**2.80**
		L_8 - L_9	1151.51	-461.81	-55	616	-1107	340	-83	180	392	-145	0.805	0.186	1.00	Yes	0.543	0.117	0.66	Yes	0.383	0.089	0.48	Yes	0.380	0.149	0.53	Yes	1.00	**3.44**
		L_9 - L_{10}	650.80	-793.76	-115	851	-1021	227	136	-176	-131	-83	0.581	0.185	0.77	Yes	0.338	0.115	0.46	Yes	0.839	0.091	0.94	Yes	0.834	0.163	1.00	Yes	1.00	**3.63**
		L_{10} - L_{11}	-----	-754.31	23	563	-634	561	-89	94	23	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.892	0.074	0.97	Yes	0.886	0.111	1.00	Yes	1.00	**2.19**
		L_{11} - L_{12}	-----	-1033.99	-69	1109	-529	881	89	-336	77	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.855	0.125	0.98	Yes	0.848	0.151	1.00	Yes	1.00	**2.32**
		L_{12} - L_{13}	-----	-1496.31	125	-804	-505	-169	-349	51	38	214	-----	-----	-----	-----	-----	-----	-----	-----	0.910	0.086	1	Yes	0.903	0.081	0.99	Yes	1.00	**3.43**
		L_{13} - L_{14}	-----	-1499.69	-530	1557	-941	2705	504	462	189	370	-----	-----	-----	-----	-----	-----	-----	-----	0.761	0.190	0.96	Yes	0.755	0.236	1.00	Yes	1.00	**1.88**
		L_{14} - L_{15}	-----	-1514.89	2684	-895	1623	-529	379	222	357	305	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.179	0.95	Yes	0.762	0.234	1.00	Yes	1.00	**1.70**
		L_{15} - L_{16}	-----	-1406.05	-51	-58	-1069	186	340	-529	223	-299	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.144	1	Yes	0.841	0.106	0.95	Yes	1.00	**5.61**
		L_{16} - L_{17}	-----	-1159.81	1209	-353	687	-146	-332	-589	-418	11	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.137	0.99	Yes	0.845	0.149	1.00	Yes	1.00	**2.82**
		L_{17} - L_{18}	-----	-786.19	881	-982	356	82	-641	572	37	-175	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.166	1	Yes	0.826	0.157	0.99	Yes	1.00	**5.68**
		L_{18} - L_{19}	-----	-651.08	685	125	244	-344	-240	37	145	-58	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.107	0.99	Yes	0.868	0.132	1.00	Yes	1.00	**3.64**
		L_{19} - L_{20}	396.90	-634.05	527	328	173	-772	183	-229	-561	379	0.450	0.235	0.69	Yes	0.266	0.147	0.42	Yes	0.850	0.124	0.98	Yes	0.845	0.149	1.00	Yes	1.00	**4.84**
		L_{20} - L_{21}	965.47	-448.77	437	73	-807	-997	-189	42	7	-715	0.770	0.222	1.00	Yes	0.505	0.136	0.65	Yes	0.424	0.180	0.61	Yes	0.421	0.146	0.57	Yes	1.00	**4.18**
		L_{21} - L_{22}	948.96	-278.94	182	16	-594	-1304	144	-190	-487	451	0.757	0.243	1.00	Yes	0.506	0.153	0.66	Yes	0.264	0.193	0.46	Yes	0.262	0.190	0.46	Yes	1.00	**3.52**
		L_{22} - L_{23}	915.15	-341.52	72	188	-1497	-382	-75	191	448	-52	0.730	0.267	1.00	Yes	0.488	0.168	0.66	Yes	0.323	0.213	0.54	Yes	0.320	0.219	0.54	Yes	1.00	**3.97**
		L_{23} - L_{24}	998.25	-702.46	224	587	-1106	-316	156	-168	-74	386	0.796	0.203	1.00	Yes	0.522	0.122	0.65	Yes	0.664	0.136	0.8	Yes	0.659	0.161	0.83	Yes	1.00	**6.43**
		L_{24} - L_{25}	-----	-640.16	257	457	-757	658	-110	148	574	-267	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.086	0.95	Yes	0.853	0.146	1.00	Yes	1.00	**4.92**
		L_{25} - L_{26}	-----	-650.17	120	674	-503	543	100	-169	-100	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.102	0.98	Yes	0.867	0.130	1.00	Yes	1.00	**3.78**
		L_{26} - L_{27}	-----	-845.11	178	397	-410	668	-76	296	112	-29	-----	-----	-----	-----	-----	-----	-----	-----	0.894	0.081	0.98	Yes	0.887	0.107	1.00	Yes	1.00	**3.20**
		L_{27} - L_{28}	-----	-1119.56	111	1134	-435	1424	450	-273	-9	-176	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.141	0.97	Yes	0.815	0.176	1.00	Yes	1.00	**4.61**
		L_{28} - L_{29}	-----	-1486.11	656	-551	-401	-518	85	1058	-245	23	-----	-----	-----	-----	-----	-----	-----	-----	0.896	0.096	1	Yes	0.889	0.065	0.96	Yes	1.00	**5.78**
		L_{29} - L_{30}	-----	-1491.84	-650	1492	-1080	2766	630	715	220	362	-----	-----	-----	-----	-----	-----	-----	-----	0.757	0.201	0.96	Yes	0.751	0.241	1.00	Yes	1.00	**2.04**
		L_{30} - L_{31}	-----	-1531.52	2537	-876	1747	-548	241	59	512	409	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.180	0.96	Yes	0.771	0.222	1.00	Yes	1.00	**1.31**
		L_{31} - L_{32}	-----	-1508.13	-174	-354	-621	-327	350	-261	-327	-148	-----	-----	-----	-----	-----	-----	-----	-----	0.910	0.082	1	Yes	0.902	0.062	0.97	Yes	1.00	**2.23**
		L_{32} - L_{33}	-----	-1037.72	1027	-319	581	-338	80	-5	-423	50	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.113	0.98	Yes	0.851	0.140	1.00	Yes	1.00	**1.99**
		L_{33} - L_{34}	7.39	-738.82	706	-323	419	-475	-151	219	137	-35	0.007	0.153	0.17	Yes	0.004	0.096	0.10	Yes	0.874	0.078	0.96	Yes	0.868	0.123	1.00	Yes	1.00	**2.66**
		L_{34} - L_{35}	651.92	-810.32	877	-78	-8	-636	-208	82	-212	343	0.582	0.182	0.77	Yes	0.339	0.112	0.46	Yes	0.857	0.085	0.95	Yes	0.851	0.140	1.00	Yes	1.00	**4.75**
		L_{35} - L_{36}	1196.24	-712.55	782	71	164	-963	173	-180	336	138	0.837	0.162	1.00	Yes	0.564	0.102	0.67	Yes	0.591	0.087	0.68	Yes	0.586	0.130	0.72	Yes	1.00	**6.20**
		L_{36} - L_{37}	1376.73	-----	324	-243	-526	-1475	-198	148	501	-487	0.789	0.204	1.00	Yes	0.519	0.121	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.11**
		L_{37} - L_{38}	1821.19	-----	-123	-623	-1609	-1878	69	-193	-1019	534	0.771	0.228	1.00	Yes	0.512	0.137	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.38**
		L_{38} - L_{39}	1839.11	-----	-527	-219	-1857	-698	-121	179	634	139	0.789	0.204	1.00	Yes	0.530	0.126	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		L_{39} - L_{40}	1809.02	-----	-352	-423	-1380	-946	119	-153	129	320	0.843	0.152	1.00	Yes	0.558	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.54**
		L_{40} - L_{41}	1368.94	-----	-422	28	-1349	69	-29	299	196	-161	0.812	0.184	1.00	Yes	0.548	0.119	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.42**
		L_{41} - L_{42}	1032.75	-----	-212	-83	-1009	205	142	-68	-208	-72	0.825	0.171	1.00	Yes	0.542	0.099	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.85**
		L_{42} - L_{43}	559.12	-17.77	-230	203	-1247	568	183	369	182	22	0.679	0.314	1.00	Yes	0.404	0.201	0.61	Yes	0.026	0.152	0.18	Yes	0.025	0.254	0.28	Yes	1.00	**6.67**
		L_{43} - L_{44}	-----	-344.41	-64	-33	-1908	800	626	182	305	89	-----	-----	-----	-----	-----	-----	-----	-----	0.495	0.502	1	Yes	0.492	0.388	0.89	Yes	1.00	**14.34**
	Structure 3	L_0 - L_1	-----	-445.28	304	-634	45	-179	-41	-187	27	124	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.134	0.95	Yes	0.802	0.190	1.00	Yes	1.00	**4.65**
		L_1 - L_2	161.74	-38.40	956	-1687	136	-188	-735	1151	161	-114	0.248	0.745	1.00	Yes	0.167	0.474	0.65	Yes	0.070	0.444	0.52	Yes	0.069	0.506	0.58	Yes	1.00	**13.12**
		L_2 - L_3	934.40	-----	152	-645	-139	-357	441	-47	-255	171	0.814	0.181	1.00	Yes	0.521	0.110	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.36**
		L_3 - L_4	1152.73	-----	119	-1334	18	-672	-346	831	129	8	0.729	0.270	1.00	Yes	0.473	0.167	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.37**
		L_4 - L_5	1632.68	-----	-377	-263	-1277	-924	-28	228	218	-627	0.798	0.198	1.00	Yes	0.512	0.117	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.23**
		L_5 - L_6	1601.70	-----	-140	-480	-565	-1414	255	-45	-429	625	0.783	0.214	1.00	Yes	0.509	0.131	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.79**
		L_6 - L_7	1299.51	-----	-489	236	-1387	158	-51	263	434	-107	0.764	0.227	1.00	Yes	0.495	0.139	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.78**
		L_7 - L_8	1105.59	-76.89	-89	186	-537	-180	145	-198	-143	144	0.872	0.118	1.00	Yes	0.558	0.071	0.63	Yes	0.072	0.097	0.17	Yes	0.071	0.095	0.17	Yes	1.00	**5.24**
		L_8 - L_9	552.52	-349.31	-145	440	-856	413	-128	194	278	-276	0.716	0.275	1.00	Yes	0.429	0.180	0.61	Yes	0.537	0.113	0.65	Yes	0.532	0.227	0.76	Yes	1.00	**5.37**
		L_9 - L_{10}	-----	-563.64	-62	519	-517	402	199	-87	-46	-157	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.079	0.95	Yes	0.859	0.137	1.00	Yes	1.00	**4.45**
		L_{10} - L_{11}	-----	-1096.12	111	-90	-503	705	-354	-257	318	116	-----	-----	-----	-----	-----	-----	-----	-----	0.892	0.065	0.96	Yes	0.882	0.111	1.00	Yes	1.00	**7.32**
		L_{11} - L_{12}	-----	-1253.67	-44	771	-90	1337	352	110	90	164	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.186	1	Yes	0.794	0.177	0.98	Yes	1.00	**2.63**
		L_{12} - L_{13}	-----	-1256.32	1421	-60	754	-32	103	-11	25	204	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.190	1	Yes	0.796	0.188	0.99	Yes	1.00	**2.46**
		L_{13} - L_{14}	-----	-1080.04	304	-515	24	198	-133	159	223	-254	-----	-----	-----	-----	-----	-----	-----	-----	0.879	0.117	1	Yes	0.869	0.081	0.96	Yes	1.00	**4.29**
		L_{14} - L_{15}	-----	-715.28	565	103	156	-275	-256	76	-179	-576	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.145	1	Yes	0.839	0.128	0.97	Yes	1.00	**2.97**
		L_{15} - L_{16}	193.92	-562.68	483	147	175	-513	260	-224	-660	534	0.251	0.253	0.51	Yes	0.151	0.161	0.32	Yes	0.865	0.135	1	Yes	0.857	0.136	1.00	Yes	1.00	**3.58**
		L_{16} - L_{17}	683.57	-267.75	389	-36	-547	-465	-171	163	487	-116	0.786	0.210	1.00	Yes	0.467	0.133	0.61	Yes	0.366	0.170	0.54	Yes	0.362	0.132	0.50	Yes	1.00	**4.75**
		L_{17} - L_{18}	704.39	-143.20	97	-72	-625	-521	96	-109	-224	118	0.810	0.187	1.00	Yes	0.469	0.112	0.59	Yes	0.196	0.199	0.4	Yes	0.194	0.151	0.35	Yes	1.00	**5.49**
		L_{18} - L_{19}	466.82	-46.40	31	-32	-727	2	-92	212	-10	290	0.714	0.280	1.00	Yes	0.436	0.187	0.63	Yes	0.084	0.260	0.35	Yes	0.084	0.218	0.31	Yes	1.00	**5.79**
		L_{19} - L_{20}	253.32	-81.52	399	-524	-1767	1636	45	12	359	98	0.388	0.607	1.00	Yes	0.228	0.371	0.60	Yes	0.148	0.615	0.77	Yes	0.147	0.530	0.68	Yes	1.00	**35.69**

Moment (Start) AI Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-299.00	-6	53	-57	152	166	53	-779	-250	-----	-----	-----	-----	-----	-----	-----	-----	0.668	0.324	1	Yes	0.633	0.194	0.83	Yes	1.00	**1.54**
		$U_1 - L_1$	41.47	-306.20	43	-35	-235	227	610	209	-940	-388	0.075	0.573	0.65	Yes	0.041	0.315	0.36	Yes	0.669	0.327	1	Yes	0.648	0.300	0.95	Yes	1.00	**3.18**
		$U_2 - L_2$	68.71	-133.74	66	-71	-28	60	747	242	-2705	-817	0.124	0.874	1.00	Yes	0.068	0.481	0.55	Yes	0.292	0.670	0.97	Yes	0.283	0.091	0.38	Yes	1.00	**2.40**
		$U_3 - L_3$	235.89	-----	241	-250	33	-24	-878	-745	-380	-65	0.424	0.574	1.00	Yes	0.233	0.316	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.11**
		$U_4 - L_4$	-----	-151.75	318	-329	74	-75	-1619	-681	686	333	-----	-----	-----	-----	-----	-----	-----	-----	0.334	0.658	1	Yes	0.321	0.421	0.75	Yes	1.00	**6.77**
		$U_5 - L_5$	-----	-364.10	182	-200	79	-85	148	211	1106	632	-----	-----	-----	-----	-----	-----	-----	-----	0.659	0.341	1	Yes	0.628	0.203	0.84	Yes	1.00	**2.69**
		$U_6 - L_6$	-----	-402.34	182	-173	82	-72	512	227	1340	660	-----	-----	-----	-----	-----	-----	-----	-----	0.609	0.391	1	Yes	0.577	0.159	0.74	Yes	1.00	**2.51**
		$U_7 - L_7$	-----	-374.35	265	-289	118	-133	125	-7	959	249	-----	-----	-----	-----	-----	-----	-----	-----	0.626	0.373	1	Yes	0.578	0.285	0.87	Yes	1.00	**2.13**
		$U_8 - L_8$	-----	-1170.82	143	-178	-341	404	862	141	-1488	-629	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.147	1	Yes	0.815	0.075	0.89	Yes	1.00	**3.93**
		$U_9 - L_9$	-----	-659.82	-230	262	-407	451	587	221	-447	-123	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.175	0.97	Yes	0.745	0.251	1.00	Yes	1.00	**2.06**
		$U_{10} - L_{10}$	-----	-783.31	-158	155	-348	361	598	275	-744	-274	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.183	1	Yes	0.773	0.187	0.97	Yes	1.00	**3.05**
		$U_{11} - L_{11}$	-----	-665.14	-166	222	-382	483	613	384	-737	-122	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.196	1	Yes	0.774	0.224	1.00	Yes	1.00	**2.93**
		$U_{12} - L_{12}$	-----	-422.24	-137	138	-210	226	664	370	-1948	-527	-----	-----	-----	-----	-----	-----	-----	-----	0.610	0.380	1	Yes	0.579	0.193	0.78	Yes	1.00	**1.82**
		$U_{13} - L_{13}$	-----	-311.51	-85	101	-170	197	555	247	-111	154	-----	-----	-----	-----	-----	-----	-----	-----	0.630	0.366	1	Yes	0.597	0.224	0.83	Yes	1.00	**3.16**
		$U_{14} - L_{14}$	-----	-130.54	-9	10	-91	104	-1802	-531	-291	-70	-----	-----	-----	-----	-----	-----	-----	-----	0.291	0.703	1	Yes	0.276	0.133	0.41	Yes	1.00	**5.40**
		$U_{15} - L_{15}$	30.94	-256.30	176	-201	-31	27	-1307	-415	456	96	0.056	0.635	0.70	Yes	0.031	0.349	0.39	Yes	0.574	0.417	1	Yes	0.542	0.257	0.80	Yes	1.00	**5.39**
		$U_{16} - L_{16}$	-----	-317.98	238	-250	37	-42	-666	-199	485	106	-----	-----	-----	-----	-----	-----	-----	-----	0.717	0.272	0.99	Yes	0.673	0.319	1.00	Yes	1.00	**4.24**
		$U_{17} - L_{17}$	-----	-418.95	199	-220	77	-90	-104	-11	505	197	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.211	1	Yes	0.723	0.223	0.95	Yes	1.00	**2.67**
		$U_{18} - L_{18}$	-----	-522.59	421	-436	174	-180	-154	-11	683	175	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.232	1	Yes	0.727	0.247	0.98	Yes	1.00	**3.37**
		$U_{19} - L_{19}$	-----	-639.12	446	-476	182	-195	101	-10	600	121	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.199	1	Yes	0.744	0.221	0.97	Yes	1.00	**3.91**
		$U_{20} - L_{20}$	-----	-493.14	375	-435	229	-290	185	24	579	76	-----	-----	-----	-----	-----	-----	-----	-----	0.720	0.274	1	Yes	0.631	0.230	0.87	Yes	1.00	**2.04**
	Structure 2	$U_0 - L_0$	-----	-640.89	-155	273	-255	442	-22	-4	-856	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.227	1	Yes	0.687	0.188	0.88	Yes	1.00	**1.61**
		$U_1 - L_1$	-----	-712.12	-187	195	-546	549	619	151	-431	-108	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.145	0.96	Yes	0.763	0.233	1.00	Yes	1.00	**2.73**
		$U_2 - L_2$	-----	-597.84	-135	150	-433	458	619	266	-392	159	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.175	0.98	Yes	0.762	0.234	1.00	Yes	1.00	**2.50**
		$U_3 - L_3$	-----	-458.67	-66	76	-207	227	546	255	-227	136	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.211	1	Yes	0.719	0.207	0.93	Yes	1.00	**2.07**
		$U_4 - L_4$	-----	-318.84	-3	14	-183	196	574	224	-617	9	-----	-----	-----	-----	-----	-----	-----	-----	0.723	0.274	1	Yes	0.675	0.251	0.93	Yes	1.00	**2.80**
		$U_5 - L_5$	114.95	-254.74	89	-84	-135	167	579	168	-1143	-160	0.207	0.545	0.76	Yes	0.114	0.300	0.42	Yes	0.575	0.415	1	Yes	0.539	0.214	0.76	Yes	1.00	**4.29**
		$U_6 - L_6$	196.68	-----	119	-131	-52	58	598	162	-1631	-365	0.354	0.640	1.00	Yes	0.195	0.352	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.97**
		$U_7 - L_7$	-----	-151.59	220	-256	65	-74	-1575	-357	69	-18	-----	-----	-----	-----	-----	-----	-----	-----	0.342	0.649	1	Yes	0.321	0.327	0.65	Yes	1.00	**7.08**
		$U_8 - L_8$	-----	-467.36	345	-368	167	-186	-595	-237	199	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.678	0.178	0.86	Yes	0.673	0.322	1.00	Yes	1.00	**2.78**
		$U_9 - L_9$	-----	-692.41	563	-586	278	-280	-537	-159	1045	566	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.205	0.98	Yes	0.742	0.249	1.00	Yes	1.00	**3.26**
		$U_{10} - L_{10}$	-----	-753.26	517	-523	236	-235	-213	95	1157	715	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.251	1	Yes	0.704	0.231	0.94	Yes	1.00	**2.88**
		$U_{11} - L_{11}$	-----	-723.84	451	-448	226	-218	331	365	1216	702	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.263	1	Yes	0.677	0.199	0.88	Yes	1.00	**2.50**
		$U_{12} - L_{12}$	-----	-724.84	415	-413	183	-164	746	443	1485	652	-----	-----	-----	-----	-----	-----	-----	-----	0.695	0.304	1	Yes	0.628	0.178	0.81	Yes	1.00	**2.37**
		$U_{13} - L_{13}$	-----	-623.51	520	-513	217	-216	105	-15	1174	309	-----	-----	-----	-----	-----	-----	-----	-----	0.695	0.305	1	Yes	0.601	0.249	0.85	Yes	1.00	**2.60**
		$U_{14} - L_{14}$	-----	-1153.80	523	-501	-494	456	820	90	-1335	-712	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.148	1	Yes	0.765	0.093	0.86	Yes	1.00	**4.76**
		$U_{15} - L_{15}$	-----	-685.70	-248	261	-632	615	657	57	-683	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.231	1	Yes	0.661	0.302	0.97	Yes	1.00	**2.99**
		$U_{16} - L_{16}$	-----	-715.39	-158	126	-497	482	797	157	-484	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.173	1	Yes	0.767	0.211	0.98	Yes	1.00	**2.75**
		$U_{17} - L_{17}$	-----	-643.57	-191	183	-521	526	673	150	-493	8	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.166	0.96	Yes	0.749	0.244	1.00	Yes	1.00	**2.68**
		$U_{18} - L_{18}$	-----	-581.44	-173	161	-455	489	660	167	-607	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.172	0.95	Yes	0.741	0.250	1.00	Yes	1.00	**2.62**
		$U_{19} - L_{19}$	-----	-479.13	-108	104	-285	288	563	174	-727	-51	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.208	0.93	Yes	0.715	0.277	1.00	Yes	1.00	**2.58**
		$U_{20} - L_{20}$	-----	-358.60	-59	62	-184	196	587	136	-722	-139	-----	-----	-----	-----	-----	-----	-----	-----	0.735	0.262	1	Yes	0.687	0.224	0.92	Yes	1.00	**3.50**
	Structure 3	$U_0 - L_0$	-----	-549.05	-133	230	-220	367	110	14	-508	-67	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.214	1	Yes	0.688	0.189	0.88	Yes	1.00	**1.46**
		$U_1 - L_1$	-----	-648.97	-208	207	-516	509	619	144	-466	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.162	0.98	Yes	0.755	0.239	1.00	Yes	1.00	**2.76**
		$U_2 - L_2$	-----	-549.41	-159	170	-381	407	661	306	-508	103	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.194	1	Yes	0.764	0.230	1.00	Yes	1.00	**2.47**
		$U_3 - L_3$	-----	-409.80	-70	85	-187	209	568	271	-386	97	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.233	1	Yes	0.707	0.212	0.92	Yes	1.00	**1.94**
		$U_4 - L_4$	-----	-228.97	-47	53	-121	138	585	230	-1980	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.516	0.477	1	Yes	0.484	0.177	0.67	Yes	1.00	**1.94**
		$U_5 - L_5$	52.64	-180.64	58	-34	-118	142	-1508	-1117	-1124	-47	0.095	0.618	0.72	Yes	0.052	0.340	0.40	Yes	0.405	0.588	1	Yes	0.382	0.182	0.57	Yes	1.00	**7.72**
		$U_6 - L_6$	-----	-129.64	221	-248	51	-57	-1753	-567	616	187	-----	-----	-----	-----	-----	-----	-----	-----	0.289	0.704	1	Yes	0.274	0.317	0.60	Yes	1.00	**5.98**
		$U_7 - L_7$	-----	-369.33	226	-254	102	-118	-274	-86	543	180	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.229	0.98	Yes	0.708	0.290	1.00	Yes	1.00	**2.76**
		$U_8 - L_8$	-----	-517.40	334	-334	156	-154	-207	34	721	360	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.227	0.98	Yes	0.710	0.286	1.00	Yes	1.00	**3.37**
		$U_9 - L_9$	-----	-597.56	373	-462	182	-227	260	303	1316	788	-----	-----	-----	-----	-----	-----	-----	-----	0.717	0.280	1	Yes	0.696	0.214	0.91	Yes	1.00	**3.16**
		$U_{10} - L_{10}$	-----	-626.47	302	-296	158	-150	602	401	1468	809	-----	-----	-----	-----	-----	-----	-----	-----	0.649	0.346	1	Yes	0.618	0.156	0.78	Yes	1.00	**2.76**
		$U_{11} - L_{11}$	-----	-579.22	389	-445	211	-246	328	206	1126	531	-----	-----	-----	-----	-----	-----	-----	-----	0.691	0.309	1	Yes	0.654	0.247	0.91	Yes	1.00	**2.10**
		$U_{12} - L_{12}$	-----	-1122.99	276	-375	-286	299	1176	347	-1744	-528	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.188	1	Yes	0.779	0.070	0.85	Yes	1.00	**4.37**
		$U_{13} - L_{13}$	-----	-445.08	-154	169	-291	311	533	56	-390	-114	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.212	0.96	Yes	0.687	0.306	1.00	Yes	1.00	**1.95**
		$U_{14} - L_{14}$	-----	-419.75	-98	92	-160	168	684	224	-1651	-551	-----	-----	-----	-----	-----	-----	-----	-----	0.636	0.360	1	Yes	0.602	0.147	0.75	Yes	1.00	**1.66**
		$U_{15} - L_{15}$	-----	-355.36	-79	84	-161	177	761	239	-75	53	-----	-----	-----	-----	-----	-----	-----	-----	0.643	0.352	1	Yes	0.613	0.180	0.80	Yes	1.00	**3.41**
		$U_{16} - L_{16}$	-----	-177.73	-70	74	-217	222	-1041	-95	-575	-271	-----	-----	-----	-----	-----	-----	-----	-----	0.391	0.601	1	Yes	0.376	0.284	0.66	Yes	1.00	**7.61**
		$U_{17} - L_{17}$	191.87	-73.22	52	-64	-190	213	-1308	-605	479	178	0.345	0.651	1.00	Yes	0.190	0.358	0.55	Yes	0.160	0.393	0.56	Yes	0.155	0.273	0.43	Yes	1.00	**6.87**
		$U_{18} - L_{18}$	152.08	-254.48	200	-235	-157	172	-1336	-493	468	147	0.274	0.687	0.97	Yes	0.150	0.378	0.53	Yes	0.556	0.439	1	Yes	0.538	0.300	0.84	Yes	1.00	**7.21**
		$U_{19} - L_{19}$	42.86	-340.89	196	-217	-58	41	-57	-15	432	229	0.077	0.403	0.48	Yes	0.042	0.222	0.27	Yes	0.745	0.241	0.99	Yes	0.721	0.278	1.00	Yes	1.00	**5.41**
		$U_{20} - L_{20}$	-----	-297.84	207	-240	67	-76	244	78	620	199	-----	-----	-----	-----	-----	-----	-----	-----	0.665	0.334	1	Yes	0.630	0.307	0.94	Yes	1.00	**3.00**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Diagonals	Structure 1	$U_0 - L_1$	515.13	-203.28	92	-28	-168	46	-422	-150	495	-72	0.676	0.321	1.00	Yes	0.408	0.177	0.59	Yes	0.347	0.247	0.6	Yes	0.314	0.196	0.51	Yes	1.00	**13.08**
		$U_1 - L_2$	353.53	-138.34	19	-18	-91	-5	450	255	-825	-778	0.636	0.355	1.00	Yes	0.350	0.195	0.55	Yes	0.317	0.318	0.64	Yes	0.293	0.116	0.41	Yes	1.00	**3.43**
		$U_2 - L_3$	-----	-200.75	37	-26	-49	-39	441	223	-1868	-249	-----	-----	-----	-----	-----	-----	-----	-----	0.462	0.532	1	Yes	0.425	0.063	0.49	Yes	1.00	**3.38**
		$U_3 - L_4$	-----	-304.80	49	-10	-9	-57	504	284	-750	-529	-----	-----	-----	-----	-----	-----	-----	-----	0.697	0.295	1	Yes	0.645	0.073	0.72	Yes	1.00	**4.45**
		$U_4 - L_4$	580.63	-----	6	100	-102	43	-106	178	5	-20	0.851	0.145	1.00	Yes	0.468	0.079	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.26**
		$U_4 - L_5$	699.04	-----	15	217	-201	222	-218	95	-34	256	0.826	0.173	1.00	Yes	0.455	0.095	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.76**
		$U_5 - L_6$	622.13	-----	-37	92	-267	254	-569	39	126	607	0.736	0.262	1.00	Yes	0.405	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.90**
		$U_6 - L_7$	660.72	-----	82	223	-88	304	231	-195	-233	105	0.781	0.215	1.00	Yes	0.430	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.96**
		$U_8 - L_9$	940.53	-----	31	199	-78	370	606	305	-605	-371	0.752	0.242	1.00	Yes	0.466	0.137	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.38**
		$U_9 - L_{10}$	944.53	-----	-113	137	-290	246	582	264	-875	-566	0.755	0.241	1.00	Yes	0.468	0.137	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		$U_{10} - L_{11}$	939.87	-----	-69	130	-235	172	301	42	-732	-671	0.794	0.205	1.00	Yes	0.491	0.116	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.54**
		$U_{11} - L_{12}$	758.91	-----	-91	75	-249	59	202	-24	-651	-880	0.751	0.247	1.00	Yes	0.413	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.00**
		$U_{12} - L_{13}$	391.71	-----	-87	62	-166	97	66	-62	-1916	-510	0.477	0.519	1.00	Yes	0.300	0.303	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.56**
		$U_{13} - L_{14}$	348.99	-----	-32	10	-83	13	188	3	-898	-874	0.628	0.366	1.00	Yes	0.345	0.201	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.10**
		$U_{15} - L_{14}$	312.88	-189.24	31	-51	-123	-37	-343	-186	937	-347	0.563	0.429	1.00	Yes	0.310	0.236	0.55	Yes	0.443	0.456	0.9	Yes	0.400	0.157	0.56	Yes	1.00	**9.05**
		$U_{16} - L_{15}$	389.57	-21.06	-12	-8	-155	87	-299	-125	321	26	0.701	0.291	1.00	Yes	0.385	0.160	0.55	Yes	0.050	0.174	0.23	Yes	0.045	0.198	0.25	Yes	1.00	**5.66**
		$U_{17} - L_{16}$	525.97	-----	-44	21	-148	95	-311	-110	92	-2	0.771	0.223	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.35**
		$U_{18} - L_{17}$	619.03	-----	-127	86	-339	255	-406	-118	76	55	0.732	0.266	1.00	Yes	0.403	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.72**
		$U_{19} - L_{18}$	691.79	-----	-129	94	-328	248	-461	-207	-96	46	0.749	0.243	1.00	Yes	0.412	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.86**
		$U_{20} - L_{19}$	683.35	-----	-179	143	-414	330	-273	-140	35	-36	0.740	0.257	1.00	Yes	0.407	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.78**
	Structure 2	$U_0 - L_1$	628.51	-----	-48	100	-401	289	-419	-149	1255	526	0.622	0.373	1.00	Yes	0.342	0.205	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.70**
		$U_1 - L_2$	706.81	-----	-151	107	-382	291	171	-6	-793	-573	0.699	0.296	1.00	Yes	0.385	0.163	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.30**
		$U_2 - L_3$	575.86	-----	-104	77	-308	246	155	-3	-758	-540	0.681	0.312	1.00	Yes	0.374	0.171	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		$U_3 - L_4$	515.40	-----	-44	19	-167	109	194	29	-761	-485	0.687	0.312	1.00	Yes	0.378	0.172	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.29**
		$U_4 - L_5$	312.18	-76.66	13	-26	-125	72	271	61	-953	-459	0.561	0.436	1.00	Yes	0.309	0.240	0.55	Yes	0.189	0.419	0.61	Yes	0.162	0.160	0.33	Yes	1.00	**3.43**
		$U_5 - L_6$	243.13	-238.95	68	-69	-83	2	403	128	-1409	-496	0.437	0.514	0.96	Yes	0.241	0.283	0.53	Yes	0.564	0.428	1	Yes	0.506	0.107	0.62	Yes	1.00	**5.13**
		$U_6 - L_7$	-----	-299.12	51	-67	-26	-86	305	128	-691	-1016	-----	-----	-----	-----	-----	-----	-----	-----	0.640	0.359	1	Yes	0.573	0.098	0.68	Yes	1.00	**3.90**
		$U_8 - L_7$	539.54	-----	-85	77	-206	109	-269	-66	-30	617	0.688	0.310	1.00	Yes	0.433	0.177	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.28**
		$U_8 - L_9$	719.52	-----	-161	169	-346	235	-255	-62	145	-15	0.779	0.219	1.00	Yes	0.429	0.121	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.63**
		$U_{10} - L_9$	838.88	-----	-115	180	-316	233	-131	25	63	114	0.830	0.166	1.00	Yes	0.456	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.04**
		$U_{11} - L_{10}$	875.18	-----	-120	199	-350	296	-243	68	195	328	0.797	0.193	1.00	Yes	0.438	0.106	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.73**
		$U_{12} - L_{11}$	844.53	-----	-127	176	-341	344	-600	64	-58	253	0.769	0.228	1.00	Yes	0.423	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.60**
		$U_{13} - L_{12}$	727.62	-----	-158	163	-414	381	-529	-7	-242	161	0.720	0.271	1.00	Yes	0.396	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.59**
		$U_{14} - L_{13}$	730.42	-----	23	203	-254	418	505	-142	-133	46	0.723	0.269	1.00	Yes	0.397	0.148	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.73**
		$U_{14} - L_{15}$	587.72	-----	7	151	-186	343	565	258	-312	-112	0.695	0.297	1.00	Yes	0.382	0.163	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.82**
		$U_{15} - L_{16}$	585.67	-----	-154	149	-347	319	602	197	53	-370	0.692	0.306	1.00	Yes	0.381	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.95**
		$U_{16} - L_{17}$	662.11	-----	-111	163	-315	344	592	242	-375	-279	0.717	0.273	1.00	Yes	0.394	0.150	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.40**
		$U_{17} - L_{18}$	619.76	-----	-98	149	-278	275	556	203	-481	-312	0.733	0.258	1.00	Yes	0.403	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.27**
		$U_{18} - L_{19}$	606.78	-----	-71	134	-277	249	469	182	-693	-484	0.717	0.282	1.00	Yes	0.395	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.71**
		$U_{19} - L_{20}$	511.22	-----	-45	62	-181	124	383	170	-695	-892	0.652	0.344	1.00	Yes	0.359	0.198	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.73**
		$U_{20} - L_{21}$	345.28	-----	-16	25	-113	94	414	220	-796	-347	0.621	0.375	1.00	Yes	0.342	0.206	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.23**
		$U_{21} - L_{22}$	275.06	-48.49	13	-3	-96	29	671	527	-1311	-532	0.495	0.503	1.00	Yes	0.272	0.276	0.55	Yes	0.115	0.434	0.55	Yes	0.103	0.123	0.23	Yes	1.00	**6.77**
		$U_{23} - L_{22}$	371.63	-----	2	22	-123	37	-260	48	572	-77	0.668	0.323	1.00	Yes	0.368	0.178	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.25**
		$U_{24} - L_{23}$	417.43	-----	-19	37	-131	104	-219	-6	265	90	0.751	0.245	1.00	Yes	0.413	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.49**
		$U_{25} - L_{24}$	564.82	-----	-43	77	-180	165	-262	-33	129	570	0.720	0.277	1.00	Yes	0.396	0.158	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.44**
		$U_{26} - L_{25}$	658.41	-----	-65	124	-259	292	-226	-1	278	247	0.778	0.216	1.00	Yes	0.428	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.62**
		$U_{27} - L_{26}$	628.69	-----	-82	129	-265	305	-431	140	104	270	0.743	0.251	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.43**
		$U_{28} - L_{27}$	657.12	-----	-70	128	-280	350	-634	31	-53	220	0.712	0.283	1.00	Yes	0.391	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.62**
		$U_{29} - L_{28}$	581.17	-----	-63	79	-341	320	-636	-77	8	573	0.687	0.308	1.00	Yes	0.378	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.82**
		$U_{30} - L_{29}$	624.27	-51.61	92	1	-188	353	-326	-292	-116	85	0.738	0.259	1.00	Yes	0.406	0.142	0.55	Yes	0.082	0.166	0.25	Yes	0.072	0.200	0.28	Yes	1.00	**5.37**
		$U_{30} - L_{31}$	721.12	-----	-45	222	-256	433	506	232	-463	-239	0.713	0.277	1.00	Yes	0.392	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.77**
		$U_{31} - L_{32}$	732.32	-----	-225	212	-424	376	472	138	-419	-245	0.724	0.267	1.00	Yes	0.398	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.05**
		$U_{32} - L_{33}$	818.61	-----	-151	201	-337	331	450	144	-751	-525	0.746	0.246	1.00	Yes	0.410	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.41**
		$U_{33} - L_{34}$	800.22	-----	-139	181	-315	257	366	103	-936	-657	0.729	0.262	1.00	Yes	0.401	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.37**
		$U_{34} - L_{35}$	762.54	-----	-125	144	-295	209	182	30	-721	-544	0.754	0.245	1.00	Yes	0.415	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.90**
		$U_{35} - L_{36}$	642.37	-----	-155	141	-309	199	188	44	-883	-529	0.696	0.303	1.00	Yes	0.383	0.167	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.55**
		$U_{36} - L_{37}$	440.48	-----	-81	80	-185	80	226	68	-735	-1313	0.562	0.434	1.00	Yes	0.354	0.251	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		$U_{38} - L_{37}$	-----	-325.63	60	-69	-67	-69	-291	-118	190	668	-----	-----	-----	-----	-----	-----	-----	-----	0.704	0.291	1	Yes	0.624	0.079	0.71	Yes	1.00	**5.17**
		$U_{39} - L_{38}$	376.41	-211.06	59	-65	-124	41	-365	-80	542	-90	0.677	0.315	1.00	Yes	0.372	0.173	0.55	Yes	0.503	0.312	0.82	Yes	0.447	0.158	0.61	Yes	1.00	**5.42**
		$U_{40} - L_{39}$	393.90	-39.36	3	-16	-139	90	-378	-100	155	40	0.708	0.288	1.00	Yes	0.390	0.158	0.55	Yes	0.094	0.168	0.27	Yes	0.083	0.178	0.27	Yes	1.00	**3.50**
		$U_{41} - L_{40}$	559.79	-----	-51	25	-178	125	-413	-181	7	7	0.746	0.249	1.00	Yes	0.410	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.49**
		$U_{42} - L_{41}$	619.98	-----	-112	83	-327	262	-409	-173	-33	36	0.733	0.259	1.00	Yes	0.403	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.56**
		$U_{43} - L_{42}$	774.59	-----	-125	93	-377	310	-388	-200	-88	86	0.766	0.233	1.00	Yes	0.421	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.28**
		$U_{44} - L_{43}$	786.53	-----	-154	147	-404	381	-167	21	52	57	0.778	0.212	1.00	Yes	0.428	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
	Structure 3	$U_0 - L_1$	643.15	-----	-48	89	-359	292	-272	-84	724	422	0.697	0.303	1.00	Yes	0.383	0.166	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.73**
		$U_1 - L_2$	635.30	-----	-159	109	-338	242	161	-42	-797	-538	0.688	0.304	1.00	Yes	0.378	0.167	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.29**
		$U_2 - L_3$	563.01	-----	-125	86	-304	240	129	-28	-877	-620	0.666	0.331	1.00	Yes	0.366	0.182	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.48**
		$U_3 - L_4$	460.55	-----	-43	21	-133	73	150	-28	-669	-805	0.675	0.323	1.00	Yes	0.371	0.178	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		$U_4 - L_5$	106.54	-----	-19	0	-91	28	163	-12	-2380	-205	0.192	0.805	1.00	Yes	0.105	0.443	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.22**
		$U_5 - L_6$	-----	-222.38	17	-93	-28	-66	-830	-337	-1060	-825	-----	-----	-----	-----	-----	-----	-----	-----	0.521	0.472	1	Yes	0.471	0.119	0.59	Yes	1.00	**4.34**
		$U_7 - L_6$	441.13	-----	-37	17	-96	43	-273	-54	153	-131	0.793	0.202	1.00	Yes	0.436	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.25**
		$U_8 - L_7$	614.84	-----	-84	79	-214	152	-273	-97	274	122	0.749	0.241	1.00	Yes	0.472	0.135	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.75**
		$U_8 - L_9$	848.36	-----	-69	98	-267	111	-216	9	31	187	0.839	0.156	1.00	Yes	0.462	0.086	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.25**
		$U_{10} - L_9$	992.57	-----	-45	152	-237	199	-97	94	99	349	0.838	0.155	1.00	Yes	0.519	0.088	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.75**
		$U_{11} - L_{10}$	926.34	-----	-82	107	-280	255	-536	-34	512	990	0.741	0.251	1.00	Yes	0.459	0.143	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		$U_{12} - L_{11}$	961.42	-----	89	240	-73	367	504	40	25	376	0.769	0.228	1.00	Yes	0.476	0.128	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.18**
		$U_{13} - L_{13}$	597.48	-----	22	171	-86	297	662	356	-268	-218	0.706	0.289	1.00	Yes	0.389	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.82**
		$U_{13} - L_{14}$	594.27	-----	-97	136	-278	214	723	321	-436	-558	0.703	0.289	1.00	Yes	0.386	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.55**
		$U_{14} - L_{15}$	462.02	-----	-26	164	-185	154	578	272	-1919	-475	0.546	0.453	1.00	Yes	0.300	0.249	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.95**
		$U_{15} - L_{16}$	413.91	-----	-7	87	-79	1	487	260	-1275	-1131	0.607	0.385	1.00	Yes	0.334	0.212	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.13**
		$U_{17} - L_{16}$	-----	-345.20	56	-7	-41	-67	-246	5	246	-450	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.209	1	Yes	0.730	0.085	0.82	Yes	1.00	**6.12**
		$U_{18} - L_{17}$	228.16	-347.94	68	-42	-111	-11	-204	-65	281	-120	0.410	0.224	0.64	Yes	0.226	0.123	0.35	Yes	0.801	0.192	1	Yes	0.736	0.143	0.88	Yes	1.00	**8.16**
		$U_{19} - L_{18}$	460.90	-219.78	40	-30	-84	6	-207	-118	109	53	0.829	0.167	1.00	Yes	0.456	0.092	0.55	Yes	0.504	0.163	0.67	Yes	0.465	0.107	0.58	Yes	1.00	**7.05**
		$U_{20} - L_{19}$	616.72	-76.10	-22	-3	-143	81	-48	30	91	60	0.809	0.190	1.00	Yes	0.489	0.105	0.60	Yes	0.130	0.098	0.23	Yes	0.117	0.167	0.29	Yes	1.00	**6.08**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

| | | | Vehicle | Pedestrian | Axial Force | | ZZ Axis Bending | | | | YY Axis Bending | | | | Tension | | | | | | | | Compression | | | | | | | |

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Lower Chord	Structure 1	L_0 - L_1	-----	-163.99	1903	-2329	-643	535	-61	-224	-78	-287	-----	-----	-----	-----	-----	-----	-----	-----	0.298	0.548	0.85	Yes	0.295	0.699	1.00	Yes	1.00	**45.57**
		L_1 - L_2	464.43	-----	200	-462	94	-779	61	-191	-196	-242	0.711	0.286	1.00	Yes	0.434	0.191	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.36**
		L_2 - L_3	721.91	-153.38	26	120	-468	-619	-41	48	-97	-54	0.831	0.165	1.00	Yes	0.481	0.099	0.58	Yes	0.210	0.185	0.40	Yes	0.208	0.149	0.36	Yes	1.00	**5.62**
		L_3 - L_4	694.61	-237.52	114	342	-283	-752	87	72	-71	-75	0.799	0.196	1.00	Yes	0.475	0.127	0.61	Yes	0.325	0.182	0.51	Yes	0.321	0.182	0.51	Yes	1.00	**4.54**
		L_4 - L_5	175.48	-524.20	109	601	-744	480	57	37	-251	165	0.227	0.241	0.47	Yes	0.136	0.158	0.30	Yes	0.806	0.165	0.98	Yes	0.799	0.197	1.00	Yes	1.00	**3.60**
		L_5 - L_6	-----	-730.59	164	600	-222	303	72	121	165	140	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.144	1.00	Yes	0.843	0.133	0.98	Yes	1.00	**3.60**
		L_6 - L_7	-----	-1136.08	220	105	-529	435	125	-95	-70	167	-----	-----	-----	-----	-----	-----	-----	-----	0.925	0.038	0.97	Yes	0.914	0.083	1.00	Yes	1.00	**5.41**
		L_7 - L_8	-----	-1216.62	47	789	-68	1555	-108	-126	-7	-205	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.214	1.00	Yes	0.771	0.206	0.98	Yes	1.00	**5.81**
		L_8 - L_9	-----	-1286.46	1264	-50	571	-30	-53	-53	-122	-144	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.172	1.00	Yes	0.815	0.167	0.99	Yes	1.00	**2.92**
		L_9 - L_{10}	-----	-1098.32	729	-504	3	143	-182	-266	267	231	-----	-----	-----	-----	-----	-----	-----	-----	0.894	0.077	0.98	Yes	0.884	0.115	1.00	Yes	1.00	**7.96**
		L_{10} - L_{11}	-----	-544.91	627	-321	219	-154	75	-86	111	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.088	0.93	Yes	0.830	0.166	1.00	Yes	1.00	**4.38**
		L_{11} - L_{12}	126.08	-245.15	2215	-2357	305	-282	431	-835	5	7	0.163	0.770	0.94	Yes	0.098	0.502	0.61	Yes	0.377	0.217	0.60	Yes	0.373	0.624	1.00	Yes	1.00	**31.14**
		L_{12} - L_{13}	1134.02	-65.52	220	-45	-167	-505	24	28	64	13	0.895	0.097	1.00	Yes	0.572	0.058	0.64	Yes	0.061	0.089	0.16	Yes	0.061	0.090	0.16	Yes	1.00	**6.62**
		L_{13} - L_{14}	1230.79	-----	497	-1841	228	-553	-12	-228	15	22	0.724	0.273	1.00	Yes	0.469	0.167	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.74**
		L_{14} - L_{15}	1537.98	-----	-370	-27	-1810	-297	-120	-64	-322	31	0.751	0.241	1.00	Yes	0.488	0.146	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.60**
		L_{15} - L_{16}	1710.92	-----	-175	-400	-987	-1103	-84	-33	19	-377	0.836	0.159	1.00	Yes	0.537	0.094	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.90**
		L_{16} - L_{17}	1155.52	-----	-406	84	-1354	194	-80	-64	-681	93	0.731	0.259	1.00	Yes	0.474	0.161	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.18**
		L_{17} - L_{18}	794.68	-----	-149	-95	-1099	491	-37	30	-334	-713	0.692	0.303	1.00	Yes	0.443	0.184	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.40**
		L_{18} - L_{19}	98.26	-293.32	-162	267	-1542	1073	-5	-42	-1140	482	0.150	0.699	0.85	Yes	0.102	0.446	0.55	Yes	0.533	0.259	0.80	Yes	0.528	0.463	1.00	Yes	1.00	**14.97**
		L_{19} - L_{20}	69.70	-463.79	-100	-29	-549	258	-30	-7	143	32	0.107	0.195	0.31	Yes	0.065	0.130	0.20	Yes	0.842	0.121	0.97	Yes	0.835	0.165	1.00	Yes	1.00	**5.36**
	Structure 2	L_0 - L_1	8.93	-275.54	1141	-2942	-183	174	-22	-75	-45	-156	0.011	0.624	0.64	Yes	0.006	0.404	0.42	Yes	0.396	0.410	0.81	Yes	0.394	0.599	1.00	Yes	1.00	**24.30**
		L_1 - L_2	587.56	-----	533	-1330	128	-135	-95	-59	-62	-10	0.714	0.286	1.00	Yes	0.424	0.185	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.38**
		L_2 - L_3	1042.71	-----	143	-1044	-69	-100	-14	-24	61	82	0.833	0.163	1.00	Yes	0.547	0.093	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.56**
		L_3 - L_4	1304.00	-----	129	-1180	-163	-1387	671	68	53	-99	0.774	0.219	1.00	Yes	0.522	0.141	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.73**
		L_4 - L_5	1793.55	-----	-245	-142	-1248	-1473	-14	-61	-230	-107	0.836	0.155	1.00	Yes	0.554	0.092	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.29**
		L_5 - L_6	1936.07	-----	-125	-296	-757	-1768	128	-17	-116	-131	0.831	0.165	1.00	Yes	0.558	0.100	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.16**
		L_6 - L_7	1944.14	-----	-376	-24	-1700	-1856	-176	42	-95	198	0.823	0.175	1.00	Yes	0.547	0.102	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.66**
		L_7 - L_8	1396.55	-59.08	-184	346	-1573	-498	-128	8	-172	-298	0.801	0.198	1.00	Yes	0.526	0.117	0.65	Yes	0.040	0.191	0.24	Yes	0.040	0.174	0.22	Yes	1.00	**3.77**
		L_8 - L_9	1132.78	-383.47	-36	579	-1094	189	-22	18	-176	538	0.792	0.198	1.00	Yes	0.534	0.125	0.66	Yes	0.318	0.110	0.43	Yes	0.316	0.148	0.47	Yes	1.00	**4.50**
		L_9 - L_{10}	755.10	-753.27	-57	820	-1270	139	32	105	88	-306	0.674	0.240	0.92	Yes	0.392	0.149	0.55	Yes	0.796	0.150	0.95	Yes	0.791	0.203	1.00	Yes	1.00	**5.43**
		L_{10} - L_{11}	30.40	-728.08	116	533	-808	541	63	1	-370	120	0.030	0.191	0.23	Yes	0.018	0.119	0.14	Yes	0.861	0.068	0.93	Yes	0.855	0.141	1.00	Yes	1.00	**3.76**
		L_{11} - L_{12}	-----	-1041.71	99	1017	-751	746	82	213	52	136	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.123	0.99	Yes	0.854	0.138	1.00	Yes	1.00	**4.57**
		L_{12} - L_{13}	-----	-1462.51	351	-602	-1040	-255	172	-121	-40	-49	-----	-----	-----	-----	-----	-----	-----	-----	0.882	0.117	1.00	Yes	0.875	0.103	0.98	Yes	1.00	**6.33**
		L_{13} - L_{14}	-----	-1519.38	-340	1326	-850	2690	-233	-460	-83	-283	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.187	0.96	Yes	0.765	0.235	1.00	Yes	1.00	**2.76**
		L_{14} - L_{15}	-----	-1519.61	2622	-941	1178	-473	-342	-187	-539	-375	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.183	0.96	Yes	0.765	0.229	1.00	Yes	1.00	**2.73**
		L_{15} - L_{16}	-----	-1418.89	-125	-30	-1438	277	-464	-401	127	540	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.137	1.00	Yes	0.849	0.143	1.00	Yes	1.00	**6.35**
		L_{16} - L_{17}	-----	-1129.45	1382	-182	670	-46	115	-91	132	-52	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.138	0.97	Yes	0.823	0.170	1.00	Yes	1.00	**3.00**
		L_{17} - L_{18}	-----	-841.42	713	-286	319	142	-15	-111	-120	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.890	0.083	0.98	Yes	0.884	0.114	1.00	Yes	1.00	**3.38**
		L_{18} - L_{19}	-----	-648.77	639	195	255	-115	-7	32	21	120	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.120	1.00	Yes	0.865	0.123	0.99	Yes	1.00	**4.28**
		L_{19} - L_{20}	226.81	-665.86	545	345	218	-524	40	-23	149	-72	0.257	0.128	0.39	Yes	0.152	0.081	0.24	Yes	0.893	0.101	1.00	Yes	0.887	0.105	1.00	Yes	1.00	**5.59**
		L_{20} - L_{21}	769.26	-904.04	797	376	-430	-926	-123	-117	-41	69	0.622	0.151	0.78	Yes	0.409	0.087	0.50	Yes	0.865	0.119	0.99	Yes	0.859	0.138	1.00	Yes	1.00	**9.51**
		L_{21} - L_{22}	924.51	-804.13	477	594	-614	-1577	-105	-14	103	-141	0.747	0.250	1.00	Yes	0.501	0.151	0.66	Yes	0.770	0.216	0.99	Yes	0.764	0.235	1.00	Yes	1.00	**9.05**
		L_{22} - L_{23}	848.48	-363.94	224	271	-1922	-382	35	-22	-246	188	0.686	0.313	1.00	Yes	0.460	0.190	0.65	Yes	0.348	0.255	0.61	Yes	0.346	0.286	0.64	Yes	1.00	**5.17**
		L_{23} - L_{24}	975.05	-682.96	301	544	-1163	-630	40	118	292	-87	0.788	0.205	1.00	Yes	0.518	0.119	0.64	Yes	0.654	0.197	0.86	Yes	0.649	0.173	0.83	Yes	1.00	**8.42**
		L_{24} - L_{25}	292.29	-597.32	485	358	-1021	174	151	-69	-452	359	0.331	0.266	0.60	Yes	0.196	0.168	0.37	Yes	0.801	0.124	0.93	Yes	0.796	0.197	1.00	Yes	1.00	**7.57**
		L_{25} - L_{26}	-----	-631.85	267	624	-799	534	77	203	-20	-314	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.151	1.00	Yes	0.842	0.154	1.00	Yes	1.00	**7.12**
		L_{26} - L_{27}	-----	-850.19	240	222	-455	658	185	56	-209	133	-----	-----	-----	-----	-----	-----	-----	-----	0.899	0.074	0.98	Yes	0.893	0.105	1.00	Yes	1.00	**4.04**
		L_{27} - L_{28}	-----	-1173.81	126	699	-515	1138	238	443	-45	-201	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.125	0.99	Yes	0.855	0.140	1.00	Yes	1.00	**5.31**
		L_{28} - L_{29}	-----	-1480.70	237	-1033	-430	-419	458	-124	-246	126	-----	-----	-----	-----	-----	-----	-----	-----	0.893	0.100	1.00	Yes	0.886	0.103	0.99	Yes	1.00	**7.43**
		L_{29} - L_{30}	-----	-1538.07	-327	1041	-908	2587	-191	-421	-72	-187	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.171	0.96	Yes	0.774	0.226	1.00	Yes	1.00	**3.04**
		L_{30} - L_{31}	-----	-1473.05	2944	-1017	971	-343	-201	-83	-214	-154	-----	-----	-----	-----	-----	-----	-----	-----	0.748	0.183	0.94	Yes	0.741	0.257	1.00	Yes	1.00	**3.65**
		L_{31} - L_{32}	-----	-1408.08	124	-645	-1322	323	-417	56	216	-47	-----	-----	-----	-----	-----	-----	-----	-----	0.857	0.134	1.00	Yes	0.849	0.133	0.99	Yes	1.00	**8.76**
		L_{32} - L_{33}	72.18	-1009.15	1225	-507	266	-337	49	-111	146	59	0.050	0.181	0.24	Yes	0.033	0.107	0.15	Yes	0.834	0.109	0.95	Yes	0.828	0.167	1.00	Yes	1.00	**4.45**
		L_{33} - L_{34}	-----	-765.93	563	-520	196	-189	41	-285	25	2	-----	-----	-----	-----	-----	-----	-----	-----	0.906	0.046	0.96	Yes	0.900	0.098	1.00	Yes	1.00	**6.93**
		L_{34} - L_{35}	883.12	-824.03	792	124	-211	-640	-29	45	-2	348	0.788	0.169	0.96	Yes	0.459	0.104	0.57	Yes	0.871	0.127	1.00	Yes	0.865	0.127	1.00	Yes	1.00	**7.49**
		L_{35} - L_{36}	1207.21	-637.75	577	193	37	-907	85	-84	318	-195	0.844	0.152	1.00	Yes	0.569	0.096	0.67	Yes	0.529	0.100	0.63	Yes	0.525	0.122	0.65	Yes	1.00	**7.74**
		L_{36} - L_{37}	1496.93	-412.17	563	232	-719	-783	-120	-34	-592	370	0.858	0.135	1.00	Yes	0.564	0.082	0.65	Yes	0.280	0.118	0.40	Yes	0.278	0.086	0.37	Yes	1.00	**7.32**
		L_{37} - L_{38}	1915.23	-----	187	-299	-1760	-1881	7	-41	-94	-338	0.811	0.186	1.00	Yes	0.539	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.18**
		L_{38} - L_{39}	1872.46	-----	-167	-140	-1816	-1009	-49	1	-115	457	0.803	0.190	1.00	Yes	0.539	0.116	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.53**
		L_{39} - L_{40}	1770.69	-----	-68	-385	-1423	-1028	-14	-27	23	-537	0.825	0.171	1.00	Yes	0.547	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.18**
		L_{40} - L_{41}	1328.71	-----	-247	-71	-1409	-91	-37	-19	-589	145	0.781	0.212	1.00	Yes	0.526	0.133	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.42**
		L_{41} - L_{42}	1008.69	-----	-45	-190	-1213	237	-34	-64	-112	-191	0.795	0.196	1.00	Yes	0.521	0.116	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.73**
		L_{42} - L_{43}	378.52	-----	-69	-100	-1814	609	-113	-141	-523	680	0.484	0.514	1.00	Yes	0.289	0.296	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.51**
		L_{43} - L_{44}	219.61	-475.65	-60	-17	-1574	541	-153	-45	644	188	0.267	0.426	0.70	Yes	0.159	0.271	0.43	Yes	0.684	0.270	0.96	Yes	0.680	0.320	1.00	Yes	1.00	**11.48**
	Structure 3	L_0 - L_1	137.07	-392.51	579	-866	8	-107	33	148	-7	-34	0.218	0.294	0.52	Yes	0.134	0.196	0.34	Yes	0.741	0.152	0.90	Yes	0.735	0.261	1.00	Yes	1.00	**9.59**
		L_1 - L_2	289.35	-----	1027	-1725	76	-120	116	180	-66	3	0.443	0.555	1.00	Yes	0.300	0.344	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**20.06**
		L_2 - L_3	927.96	-----	221	-824	-53	-356	109	101	199	230	0.808	0.188	1.00	Yes	0.517	0.113	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.81**
		L_3 - L_4	1285.84	-----	117	-1173	22	-368	42	6	102	57	0.813	0.181	1.00	Yes	0.528	0.111	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.00**
		L_4 - L_5	1770.20	-----	-311	-202	-976	-925	71	98	-130	-165	0.865	0.129	1.00	Yes	0.555	0.076	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.68**
		L_5 - L_6	1553.59	-----	-73	-418	-295	-1889	81	80	-97	-138	0.759	0.237	1.00	Yes	0.493	0.143	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.93**
		L_6 - L_7	1280.65	-----	-402	240	-1574	97	-184	19	-247	212	0.753	0.237	1.00	Yes	0.488	0.145	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.26**
		L_7 - L_8	1113.02	-----	-67	150	-531	-309	-25	44	167	4	0.878	0.114	1.00	Yes	0.562	0.068	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.52**
		L_8 - L_9	536.82	-233.87	-132	398	-892	340	-3	45	-321	374	0.695	0.301	1.00	Yes	0.417	0.196	0.62	Yes	0.360	0.132	0.50	Yes	0.356	0.236	0.60	Yes	1.00	**5.63**
		L_9 - L_{10}	-----	-533.26	7	501	-695	325	79	149	127	102	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.104	0.93	Yes	0.812	0.184	1.00	Yes	1.00	**6.27**
		L_{10} - L_{11}	-----	-1082.86	197	71	-785	717	148	-211	-212	86	-----	-----	-----	-----	-----	-----	-----	-----	0.881	0.050	0.94	Yes	0.872	0.123	1.00	Yes	1.00	**8.77**
		L_{11} - L_{12}	-----	-1256.01	5	865	-144	1220	-186	-160	-304	-570	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.191	1.00	Yes	0.795	0.162	0.96	Yes	1.00	**4.58**
		L_{12} - L_{13}	-----	-1241.31	1305	-60	470	-23	-451	-278	-239	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.200	1.00	Yes	0.786	0.173	0.96	Yes	1.00	**3.20**
		L_{13} - L_{14}	-----	-1164.37	303	-241	-134	296	-285	-103	-127	200	-----	-----	-----	-----	-----	-----	-----	-----	0.948	0.050	1.00	Yes	0.937	0.048	0.99	Yes	1.00	**5.23**
		L_{14} - L_{15}	-----	-731.25	680	-10	254	-25	169	-77	110	6	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.132	0.99	Yes	0.844	0.151	1.00	Yes	1.00	**3.93**
		L_{15} - L_{16}	-----	-490.70	938	-863	247	7	26	-334	-61	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.754	0.190	0.95	Yes	0.748	0.248	1.00	Yes	1.00	**8.38**
		L_{16} - L_{17}	691.63	-393.84	471	74	-695	-419	113	-69	23	179	0.796	0.197	1.00	Yes	0.473	0.127	0.60	Yes	0.538	0.148	0.69	Yes	0.533	0.168	0.71	Yes	1.00	**5.11**
		L_{17} - L_{18}	712.55	-270.79	206	52	-625	-598	-3	18	175	-90	0.820	0.179	1.00	Yes	0.474	0.107	0.59	Yes	0.370	0.205	0.58	Yes	0.367	0.151	0.52	Yes	1.00	**5.87**
		L_{18} - L_{19}	426.07	-104.37	170	-40	-810	85	68	-173	-280	464	0.652	0.343	1.00	Yes	0.398	0.227	0.63	Yes	0.190	0.182	0.38	Yes	0.188	0.243	0.44	Yes	1.00	**6.33**
		L_{19} - L_{20}	45.20	-296.71	202	-323	-1274	743	22	6	1128	307	0.069	0.624	0.70	Yes	0.041	0.376	0.42	Yes	0.539	0.452	1.00	Yes	0.534	0.382	0.92	Yes	1.00	**23.88**

Moment (Start) AI Operating

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
North Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-278.83	-44	70	-174	228	-63	-20	40	13	-----	-----	-----	-----	-----	-----	-----	-----	0.690	0.147	0.84	Yes	0.651	0.339	1.00	Yes	1.00	**2.68**
		$U_1 - L_1$	60.88	-337.33	53	-43	-201	224	-13	-27	-82	6	0.110	0.310	0.42	Yes	0.060	0.170	0.24	Yes	0.737	0.102	0.84	Yes	0.714	0.286	1.00	Yes	1.00	**5.22**
		$U_2 - L_2$	159.40	-307.00	137	-153	-220	273	143	42	58	62	0.287	0.390	0.68	Yes	0.158	0.215	0.38	Yes	0.671	0.143	0.82	Yes	0.650	0.349	1.00	Yes	1.00	**7.76**
		$U_3 - L_3$	286.45	-264.90	225	-264	-257	299	343	102	202	141	0.515	0.481	1.00	Yes	0.283	0.264	0.55	Yes	0.580	0.182	0.77	Yes	0.561	0.382	0.95	Yes	1.00	**12.27**
		$U_4 - L_4$	-----	-352.65	194	-195	65	-64	473	167	-5	-23	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.182	0.96	Yes	0.746	0.249	1.00	Yes	1.00	**5.05**
		$U_5 - L_5$	-----	-419.07	239	-265	75	-91	96	63	-60	-54	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.108	0.87	Yes	0.723	0.269	1.00	Yes	1.00	**3.25**
		$U_6 - L_6$	-----	-472.39	212	-220	84	-79	777	234	-199	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.756	0.239	1.00	Yes	0.713	0.214	0.93	Yes	1.00	**2.72**
		$U_7 - L_7$	-----	-405.88	277	-298	128	-143	171	60	-138	38	-----	-----	-----	-----	-----	-----	-----	-----	0.722	0.142	0.87	Yes	0.662	0.330	1.00	Yes	1.00	**2.27**
		$U_8 - L_8$	-----	-1204.42	412	-500	-341	399	1104	334	-981	-292	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.130	1.00	Yes	0.835	0.093	0.93	Yes	1.00	**6.18**
		$U_9 - L_9$	-----	-629.81	-176	205	-399	454	-249	-99	-235	-172	-----	-----	-----	-----	-----	-----	-----	-----	0.770	0.131	0.91	Yes	0.729	0.264	1.00	Yes	1.00	**3.31**
		$U_{10} - L_{10}$	-----	-735.19	-124	106	-332	313	-710	-387	-554	-445	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.201	1.00	Yes	0.756	0.185	0.95	Yes	1.00	**4.02**
		$U_{11} - L_{11}$	-----	-661.71	-144	204	-385	489	-312	-242	-377	-372	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.145	0.94	Yes	0.770	0.227	1.00	Yes	1.00	**3.97**
		$U_{12} - L_{12}$	-----	-531.53	-125	122	-310	315	-118	-112	-109	-190	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.116	0.89	Yes	0.729	0.269	1.00	Yes	1.00	**3.65**
		$U_{13} - L_{13}$	-----	-366.53	-79	99	-232	259	-44	4	-1	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.098	0.84	Yes	0.702	0.296	1.00	Yes	1.00	**2.92**
		$U_{14} - L_{14}$	-----	-367.73	-44	52	-138	158	-36	-16	450	67	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.175	1.00	Yes	0.778	0.202	0.99	Yes	1.00	**5.80**
		$U_{15} - L_{15}$	88.86	-292.61	269	-290	-63	60	281	201	-67	-48	0.160	0.453	0.62	Yes	0.088	0.249	0.34	Yes	0.656	0.217	0.88	Yes	0.619	0.371	1.00	Yes	1.00	**7.17**
		$U_{16} - L_{16}$	-----	-305.38	213	-225	24	-27	1090	-54	-80	-100	-----	-----	-----	-----	-----	-----	-----	-----	0.688	0.304	1.00	Yes	0.646	0.288	0.94	Yes	1.00	**3.75**
		$U_{17} - L_{17}$	-----	-435.71	221	-242	56	-71	201	-146	-120	-108	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.111	0.93	Yes	0.752	0.246	1.00	Yes	1.00	**3.07**
		$U_{18} - L_{18}$	-----	-536.79	420	-438	137	-143	214	-206	-131	-114	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.090	0.88	Yes	0.747	0.248	1.00	Yes	1.00	**3.36**
		$U_{19} - L_{19}$	-----	-631.10	555	-535	164	-163	248	-56	-113	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.114	0.91	Yes	0.735	0.258	1.00	Yes	1.00	**3.82**
		$U_{20} - L_{20}$	-----	-562.40	274	-462	159	-258	533	70	22	3	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.221	1.00	Yes	0.688	0.222	0.92	Yes	1.00	**2.49**
	Structure 2	$U_0 - L_0$	-----	-660.24	-144	188	-456	561	-73	-12	28	5	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.119	0.95	Yes	0.740	0.253	1.00	Yes	1.00	**3.77**
		$U_1 - L_1$	-----	-729.15	-93	102	-481	515	-121	-28	-102	23	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.078	0.92	Yes	0.781	0.219	1.00	Yes	1.00	**4.82**
		$U_2 - L_2$	-----	-592.49	-82	92	-457	474	-95	-46	-9	-1	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.079	0.88	Yes	0.755	0.243	1.00	Yes	1.00	**4.17**
		$U_3 - L_3$	-----	-497.10	-41	49	-224	242	100	-46	-44	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.079	0.93	Yes	0.780	0.220	1.00	Yes	1.00	**3.64**
		$U_4 - L_4$	0.32	-343.53	5	4	-204	211	285	86	-86	-8	0.001	0.352	0.36	Yes	0.000	0.194	0.20	Yes	0.779	0.163	0.95	Yes	0.727	0.270	1.00	Yes	1.00	**3.85**
		$U_5 - L_5$	101.39	-334.63	76	-71	-196	226	315	189	-49	-35	0.182	0.381	0.57	Yes	0.100	0.209	0.31	Yes	0.756	0.211	0.97	Yes	0.708	0.289	1.00	Yes	1.00	**5.38**
		$U_6 - L_6$	270.12	-282.58	172	-192	-299	312	362	253	163	-38	0.486	0.504	0.99	Yes	0.267	0.277	0.55	Yes	0.636	0.245	0.89	Yes	0.598	0.399	1.00	Yes	1.00	**11.17**
		$U_7 - L_7$	-----	-266.61	277	-321	52	-59	995	198	37	6	-----	-----	-----	-----	-----	-----	-----	-----	0.602	0.388	1.00	Yes	0.564	0.410	0.98	Yes	1.00	**15.27**
		$U_8 - L_8$	-----	-457.35	371	-389	115	-127	127	-57	-62	-112	-----	-----	-----	-----	-----	-----	-----	-----	0.663	0.112	0.78	Yes	0.659	0.341	1.00	Yes	1.00	**4.56**
		$U_9 - L_9$	-----	-697.92	549	-584	199	-199	1385	171	-105	-119	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.201	0.98	Yes	0.748	0.248	1.00	Yes	1.00	**4.71**
		$U_{10} - L_{10}$	-----	-785.60	547	-582	180	-185	336	-171	-130	-93	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.100	0.88	Yes	0.735	0.257	1.00	Yes	1.00	**4.64**
		$U_{11} - L_{11}$	-----	-816.86	513	-534	183	-184	142	-175	-158	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.099	0.93	Yes	0.764	0.236	1.00	Yes	1.00	**4.05**
		$U_{12} - L_{12}$	-----	-886.96	519	-533	144	-115	237	-44	-127	32	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.107	0.96	Yes	0.769	0.228	1.00	Yes	1.00	**4.10**
		$U_{13} - L_{13}$	-----	-677.68	545	-539	215	-219	790	99	-137	8	-----	-----	-----	-----	-----	-----	-----	-----	0.755	0.239	1.00	Yes	0.653	0.261	0.92	Yes	1.00	**3.08**
		$U_{14} - L_{14}$	-----	-1108.03	654	-625	-306	282	1036	655	-637	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.182	1.00	Yes	0.735	0.116	0.86	Yes	1.00	**5.37**
		$U_{15} - L_{15}$	-----	-702.37	-76	89	-671	666	-315	34	-32	61	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.164	0.95	Yes	0.677	0.321	1.00	Yes	1.00	**5.61**
		$U_{16} - L_{16}$	-----	-704.11	-61	33	-465	415	-821	-248	-603	-241	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.184	1.00	Yes	0.755	0.197	0.96	Yes	1.00	**4.01**
		$U_{17} - L_{17}$	-----	-639.10	-118	108	-542	532	-482	-306	-298	-302	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.156	0.95	Yes	0.744	0.251	1.00	Yes	1.00	**3.56**
		$U_{18} - L_{18}$	-----	-605.08	-112	100	-412	437	-273	-245	69	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.118	0.93	Yes	0.771	0.223	1.00	Yes	1.00	**3.21**
		$U_{19} - L_{19}$	-----	-478.14	-73	71	-286	289	-244	-148	-123	-150	-----	-----	-----	-----	-----	-----	-----	-----	0.719	0.120	0.84	Yes	0.714	0.278	1.00	Yes	1.00	**3.91**
		$U_{20} - L_{20}$	-----	-384.74	-42	40	-216	228	-202	-95	-20	-99	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.131	0.92	Yes	0.737	0.260	1.00	Yes	1.00	**4.06**
		$U_{21} - L_{21}$	-----	-316.19	-29	30	-240	257	-84	-16	44	3	-----	-----	-----	-----	-----	-----	-----	-----	0.714	0.116	0.83	Yes	0.669	0.328	1.00	Yes	1.00	**4.59**
		$U_{22} - L_{22}$	-----	-286.38	130	-146	-170	199	1049	298	947	267	-----	-----	-----	-----	-----	-----	-----	-----	0.644	0.354	1.00	Yes	0.606	0.254	0.87	Yes	1.00	**17.38**
		$U_{23} - L_{23}$	-----	-303.03	260	-274	14	-15	233	158	-99	-3	-----	-----	-----	-----	-----	-----	-----	-----	0.685	0.172	0.86	Yes	0.641	0.351	1.00	Yes	1.00	**5.66**
		$U_{24} - L_{24}$	-----	-338.63	197	-214	43	-48	995	94	-70	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.694	0.298	1.00	Yes	0.649	0.244	0.90	Yes	1.00	**3.41**
		$U_{25} - L_{25}$	-----	-468.91	308	-305	53	-49	382	-30	-92	10	-----	-----	-----	-----	-----	-----	-----	-----	0.705	0.120	0.83	Yes	0.700	0.297	1.00	Yes	1.00	**3.73**
		$U_{26} - L_{26}$	-----	-566.65	500	-528	72	-63	427	-40	-150	39	-----	-----	-----	-----	-----	-----	-----	-----	0.755	0.115	0.87	Yes	0.722	0.270	1.00	Yes	1.00	**4.03**
		$U_{27} - L_{27}$	-----	-632.75	564	-567	81	-78	252	157	-187	53	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.094	0.88	Yes	0.736	0.263	1.00	Yes	1.00	**3.64**
		$U_{28} - L_{28}$	-----	-679.98	474	-452	55	-34	1107	156	-230	73	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.205	1.00	Yes	0.729	0.201	0.93	Yes	1.00	**3.52**
		$U_{29} - L_{29}$	-----	-695.20	665	-654	101	-112	483	104	-174	36	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.218	1.00	Yes	0.670	0.318	0.99	Yes	1.00	**4.69**
		$U_{30} - L_{30}$	-----	-1154.89	718	-710	-704	638	1379	114	-1009	225	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.133	1.00	Yes	0.780	0.129	0.91	Yes	1.00	**8.35**
		$U_{31} - L_{31}$	-----	-740.69	-98	98	-587	584	-314	-19	-47	35	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.164	0.99	Yes	0.714	0.281	1.00	Yes	1.00	**4.89**
		$U_{32} - L_{32}$	-----	-840.41	-79	53	-441	400	-689	-264	-482	-234	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.190	1.00	Yes	0.728	0.189	0.92	Yes	1.00	**4.33**
		$U_{33} - L_{33}$	-----	-835.96	-119	105	-409	425	-431	-344	-34	-272	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.144	1.00	Yes	0.788	0.190	0.98	Yes	1.00	**4.23**
		$U_{34} - L_{34}$	-----	-806.51	-123	121	-504	541	-197	-248	-222	-389	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.126	0.93	Yes	0.754	0.239	1.00	Yes	1.00	**5.65**
		$U_{35} - L_{35}$	-----	-707.47	-144	147	-518	556	82	38	-32	-102	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.074	0.87	Yes	0.758	0.236	1.00	Yes	1.00	**5.23**
		$U_{36} - L_{36}$	-----	-471.99	-82	92	-338	356	89	71	104	35	-----	-----	-----	-----	-----	-----	-----	-----	0.684	0.101	0.79	Yes	0.680	0.311	1.00	Yes	1.00	**4.29**
		$U_{37} - L_{37}$	-----	-260.09	-42	50	-297	351	74	31	661	159	-----	-----	-----	-----	-----	-----	-----	-----	0.588	0.328	0.92	Yes	0.550	0.448	1.00	Yes	1.00	**14.84**
		$U_{38} - L_{38}$	299.78	-176.80	257	-254	-229	253	431	372	218	118	0.539	0.453	1.00	Yes	0.297	0.249	0.55	Yes	0.398	0.189	0.59	Yes	0.374	0.328	0.71	Yes	1.00	**13.93**
		$U_{39} - L_{39}$	94.31	-278.82	158	-185	-82	80	1248	52	61	0	0.170	0.598	0.77	Yes	0.093	0.329	0.43	Yes	0.630	0.366	1.00	Yes	0.590	0.236	0.83	Yes	1.00	**4.99**
		$U_{40} - L_{40}$	33.83	-340.23	215	-218	-30	24	306	-81	14	-22	0.061	0.367	0.43	Yes	0.033	0.202	0.24	Yes	0.772	0.123	0.90	Yes	0.720	0.279	1.00	Yes	1.00	**4.03**
		$U_{41} - L_{41}$	-----	-484.69	238	-252	12	-16	204	-121	10	-20	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.085	0.92	Yes	0.760	0.230	1.00	Yes	1.00	**3.70**
		$U_{42} - L_{42}$	-----	-585.65	470	-484	34	-43	269	-168	12	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.076	0.87	Yes	0.746	0.248	1.00	Yes	1.00	**4.00**
		$U_{43} - L_{43}$	-----	-702.59	578	-575	51	-66	334	91	-58	-58	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.107	0.92	Yes	0.753	0.245	1.00	Yes	1.00	**4.44**
		$U_{44} - L_{44}$	-----	-636.15	283	-455	109	-121	935	159	-161	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.231	1.00	Yes	0.682	0.193	0.88	Yes	1.00	**3.32**
	Structure 3	$U_0 - L_0$	-----	-616.29	-134	181	-465	538	-59	-8	211	28	-----	-----	-----	-----	-----	-----	-----	-----	0.839	0.149	0.99	Yes	0.740	0.258	1.00	Yes	1.00	**4.35**
		$U_1 - L_1$	-----	-663.68	-104	117	-447	472	-121	-3	-22	126	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.081	0.91	Yes	0.772	0.219	1.00	Yes	1.00	**5.17**
		$U_2 - L_2$	-----	-540.83	-102	108	-402	421	-143	-44	19	25	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.088	0.88	Yes	0.752	0.238	1.00	Yes	1.00	**4.32**
		$U_3 - L_3$	-----	-447.83	-41	54	-196	218	49	-62	1	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.083	0.93	Yes	0.773	0.221	1.00	Yes	1.00	**3.71**
		$U_4 - L_4$	-----	-330.16	-11	16	-219	232	231	51	-42	14	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.147	0.90	Yes	0.699	0.297	1.00	Yes	1.00	**4.48**
		$U_5 - L_5$	60.21	-307.91	47	-45	-247	268	229	155	-5	19	0.108	0.409	0.52	Yes	0.060	0.225	0.29	Yes	0.690	0.185	0.88	Yes	0.652	0.342	1.00	Yes	1.00	**5.86**
		$U_6 - L_6$	-----	-283.84	88	-94	36	-38	381	61	1157	390	-----	-----	-----	-----	-----	-----	-----	-----	0.633	0.360	1.00	Yes	0.601	0.120	0.73	Yes	1.00	**4.31**
		$U_7 - L_7$	-----	-360.10	247	-267	69	-81	86	-19	-8	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.107	0.84	Yes	0.690	0.305	1.00	Yes	1.00	**3.56**
		$U_8 - L_8$	-----	-511.12	307	-317	111	-108	1118	217	-61	-120	-----	-----	-----	-----	-----	-----	-----	-----	0.738	0.256	1.00	Yes	0.701	0.271	0.98	Yes	1.00	**3.68**
		$U_9 - L_9$	-----	-652.16	416	-513	129	-171	240	-71	-110	-122	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.120	0.91	Yes	0.759	0.238	1.00	Yes	1.00	**4.03**
		$U_{10} - L_{10}$	-----	-796.39	389	-401	118	-115	383	84	-198	-93	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.128	0.96	Yes	0.786	0.208	1.00	Yes	1.00	**4.44**
		$U_{11} - L_{11}$	-----	-641.13	427	-486	168	-193	359	134	-110	-11	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.146	0.92	Yes	0.724	0.270	1.00	Yes	1.00	**3.23**
		$U_{12} - L_{12}$	-----	-1149.97	440	-579	-252	267	1136	526	-677	-108	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.164	1.00	Yes	0.797	0.108	0.91	Yes	1.00	**5.81**
		$U_{13} - L_{13}$	-----	-446.01	-70	80	-293	316	-209	-1	-26	46	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.145	0.90	Yes	0.688	0.311	1.00	Yes	1.00	**3.87**
		$U_{14} - L_{14}$	-----	-516.80	-47	28	-221	211	-678	-309	-496	-261	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.208	1.00	Yes	0.741	0.194	0.94	Yes	1.00	**4.09**
		$U_{15} - L_{15}$	-----	-437.71	-48	52	-227	238	-244	-173	-311	-269	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.155	0.95	Yes	0.755	0.242	1.00	Yes	1.00	**3.71**
		$U_{16} - L_{16}$	-----	-350.63	-52	52	-191	197	-114	-96	173	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.121	0.90	Yes	0.742	0.251	1.00	Yes	1.00	**5.11**
		$U_{17} - L_{17}$	308.50	-211.57	202	-221	-268	309	-46	139	-25	99	0.555	0.436	1.00	Yes	0.305	0.240	0.55	Yes	0.464	0.130	0.60	Yes	0.448	0.395	0.85	Yes	1.00	**13.12**
		$U_{18} - L_{18}$	142.48	-249.05	153	-197	-131	147	1608	372	-149	22	0.256	0.718	0.98	Yes	0.141	0.395	0.54	Yes	0.544	0.451	1.00	Yes	0.527	0.252	0.78	Yes	1.00	**5.74**
		$U_{19} - L_{19}$	84.34	-313.07	261	-243	-87	72	253	52	-91	20	0.152	0.407	0.56	Yes	0.083	0.224	0.31	Yes	0.684	0.143	0.83	Yes	0.662	0.333	1.00	Yes	1.00	**4.58**
		$U_{20} - L_{20}$	69.48	-236.50	184	-201	-39	42	1376	441	-230	-74	0.125	0.655	0.78	Yes	0.076	0.360	0.44	Yes	0.528	0.472	1.00	Yes	0.500	0.257	0.76	Yes	1.00	**10.31**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Diagonals	Structure 1	$U_0 - L_1$	630.75	-72.64	-4	-11	-127	74	17	49	-35	-93	0.827	0.172	1.00	Yes	0.500	0.095	0.60	Yes	0.124	0.097	0.23	Yes	0.112	0.148	0.27	Yes	1.00	**5.94**
		$U_1 - L_2$	464.38	-170.03	32	-25	-90	9	34	20	-163	-120	0.835	0.163	1.00	Yes	0.459	0.090	0.55	Yes	0.390	0.150	0.55	Yes	0.360	0.116	0.48	Yes	1.00	**6.43**
		$U_2 - L_3$	366.31	-334.03	69	-35	-138	1	75	55	-115	-125	0.659	0.212	0.88	Yes	0.362	0.117	0.48	Yes	0.769	0.222	1.00	Yes	0.707	0.176	0.89	Yes	1.00	**9.48**
		$U_3 - L_4$	-----	-322.70	55	-6	-70	-113	125	127	-155	-379	-----	-----	-----	-----	-----	-----	-----	-----	0.738	0.260	1.00	Yes	0.683	0.145	0.83	Yes	1.00	**7.02**
		$U_4 - L_4$	534.48	-----	-7	67	-105	0	47	4	-417	-367	0.791	0.204	1.00	Yes	0.435	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.16**
		$U_5 - L_5$	600.16	-----	-24	162	-187	212	223	96	-892	-322	0.710	0.282	1.00	Yes	0.390	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		$U_1 - L_6$	634.23	-----	-75	128	-295	249	409	210	-346	-372	0.750	0.242	1.00	Yes	0.412	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		$U_6 - L_7$	608.57	-----	29	164	-92	302	578	245	-238	-148	0.719	0.277	1.00	Yes	0.396	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.48**
		$U_5 - L_8$	973.45	-----	105	244	-80	376	275	16	228	409	0.778	0.220	1.00	Yes	0.482	0.123	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.00**
		$U_8 - L_{10}$	988.07	-----	-75	88	-299	282	186	132	383	579	0.790	0.207	1.00	Yes	0.489	0.117	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.69**
		$U_{10} - L_{11}$	982.79	-----	-48	169	-235	204	138	193	334	455	0.830	0.169	1.00	Yes	0.514	0.095	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.30**
		$U_{11} - L_{12}$	827.21	-----	-68	95	-266	106	172	164	250	326	0.818	0.172	1.00	Yes	0.450	0.095	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.74**
		$U_{12} - L_{13}$	645.20	-----	-79	65	-202	172	-34	-17	162	72	0.786	0.208	1.00	Yes	0.495	0.116	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_{13} - L_{14}$	460.28	-----	-31	15	-107	30	-108	-85	27	-59	0.828	0.168	1.00	Yes	0.455	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		$U_{15} - L_{14}$	231.69	-215.25	40	-55	-125	-90	3	-19	-882	-484	0.417	0.415	0.84	Yes	0.229	0.228	0.46	Yes	0.504	0.495	1.00	Yes	0.455	0.160	0.62	Yes	1.00	**9.37**
		$U_{16} - L_{15}$	298.01	-12.89	-11	-6	-119	72	-83	-81	-1058	-212	0.536	0.458	1.00	Yes	0.295	0.252	0.55	Yes	0.031	0.328	0.36	Yes	0.027	0.152	0.18	Yes	1.00	**4.17**
		$U_{17} - L_{16}$	490.24	-----	-32	12	-138	89	-105	-126	-576	-535	0.719	0.274	1.00	Yes	0.395	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.08**
		$U_{18} - L_{17}$	583.42	-----	-109	73	-303	244	-106	-113	-742	-523	0.690	0.306	1.00	Yes	0.379	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		$U_{19} - L_{18}$	643.61	-----	-130	85	-339	249	-60	-101	-760	-536	0.697	0.298	1.00	Yes	0.383	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.21**
		$U_{20} - L_{19}$	673.57	-----	-67	72	-392	311	-119	-53	-371	-233	0.730	0.262	1.00	Yes	0.401	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.61**
	Structure 2	$U_0 - L_1$	799.46	-----	-96	81	-425	393	-55	-29	-22	-70	0.791	0.208	1.00	Yes	0.435	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.01**
		$U_1 - L_2$	801.94	-----	-72	51	-394	327	-81	-6	-128	-43	0.793	0.202	1.00	Yes	0.436	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.08**
		$U_2 - L_3$	661.06	-----	-62	45	-350	278	1	111	-21	-18	0.782	0.218	1.00	Yes	0.430	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		$U_3 - L_4$	594.73	-----	-24	4	-192	137	135	75	-39	-46	0.793	0.203	1.00	Yes	0.436	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.15**
		$U_4 - L_5$	428.89	-86.73	17	-25	-149	102	105	-95	-112	-13	0.771	0.222	1.00	Yes	0.424	0.122	0.55	Yes	0.214	0.091	0.31	Yes	0.184	0.190	0.38	Yes	1.00	**4.95**
		$U_5 - L_6$	425.38	-219.94	67	-64	-139	60	11	-173	-72	2	0.765	0.227	1.00	Yes	0.421	0.125	0.55	Yes	0.519	0.179	0.70	Yes	0.465	0.177	0.65	Yes	1.00	**7.08**
		$U_6 - L_7$	39.00	-390.02	86	-80	-137	-71	-41	-186	-16	-197	0.064	0.208	0.28	Yes	0.035	0.114	0.15	Yes	0.835	0.159	1.00	Yes	0.747	0.157	0.91	Yes	1.00	**9.98**
		$U_8 - L_7$	523.30	-----	-58	46	-226	70	-142	-214	-629	-497	0.667	0.331	1.00	Yes	0.420	0.189	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.71**
		$U_8 - L_8$	612.20	-----	-121	111	-311	196	-32	-73	-1078	-459	0.663	0.337	1.00	Yes	0.365	0.185	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		$U_{10} - L_9$	757.95	-----	-87	135	-320	202	25	-38	-614	-667	0.750	0.248	1.00	Yes	0.412	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.73**
		$U_{11} - L_{10}$	824.23	-----	-91	153	-335	265	191	56	-715	-542	0.751	0.240	1.00	Yes	0.413	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		$U_{12} - L_{11}$	834.89	-----	-101	167	-356	341	325	156	-636	-455	0.761	0.238	1.00	Yes	0.418	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.41**
		$U_{13} - L_{12}$	744.16	-----	-143	146	-428	380	375	157	-419	-240	0.736	0.261	1.00	Yes	0.405	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.00**
		$U_{14} - L_{13}$	726.36	-----	-2	148	-267	418	554	208	-571	-188	0.719	0.280	1.00	Yes	0.395	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.66**
		$U_{14} - L_{15}$	628.82	-----	110	127	-206	342	321	-177	27	100	0.743	0.252	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.99**
		$U_{15} - L_{16}$	628.50	-----	-30	38	-374	358	-66	-19	208	131	0.743	0.249	1.00	Yes	0.409	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.47**
		$U_{16} - L_{17}$	704.17	-----	-38	80	-304	372	-219	101	40	242	0.763	0.230	1.00	Yes	0.419	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.64**
		$U_{17} - L_{18}$	647.55	-----	-48	81	-282	297	-46	176	184	327	0.766	0.227	1.00	Yes	0.421	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.28**
		$U_{18} - L_{19}$	619.76	-----	-18	85	-304	308	79	78	499	244	0.733	0.265	1.00	Yes	0.403	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.04**
		$U_{19} - L_{20}$	595.99	-----	-10	45	-206	173	0	39	235	212	0.760	0.232	1.00	Yes	0.418	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.78**
		$U_{20} - L_{21}$	436.96	-----	-11	26	-132	112	-45	5	128	49	0.786	0.206	1.00	Yes	0.432	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.48**
		$U_{21} - L_{22}$	419.89	-6.98	7	9	-159	4	-51	117	119	-13	0.755	0.238	1.00	Yes	0.415	0.131	0.55	Yes	0.016	0.147	0.17	Yes	0.015	0.203	0.22	Yes	1.00	**7.55**
		$U_{23} - L_{22}$	319.95	-----	10	31	-148	-29	202	134	-790	-446	0.575	0.417	1.00	Yes	0.316	0.230	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.60**
		$U_{24} - L_{23}$	335.05	-----	-10	28	-110	85	80	36	-885	-169	0.603	0.397	1.00	Yes	0.331	0.218	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.87**
		$U_{25} - L_{24}$	547.96	-----	-17	65	-193	161	193	90	-605	-596	0.699	0.296	1.00	Yes	0.384	0.169	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		$U_{26} - L_{25}$	617.38	-----	-16	83	-270	252	301	156	-625	-424	0.730	0.266	1.00	Yes	0.401	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.15**
		$U_{27} - L_{26}$	643.37	-----	-37	87	-277	288	366	184	-318	-237	0.761	0.229	1.00	Yes	0.418	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.36**
		$U_{28} - L_{27}$	647.36	-----	-39	85	-298	353	407	239	-660	-105	0.701	0.289	1.00	Yes	0.386	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		$U_{29} - L_{28}$	625.14	-----	-51	61	-362	348	289	149	-154	-255	0.739	0.257	1.00	Yes	0.406	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.69**
		$U_{30} - L_{29}$	583.32	-----	57	72	-191	330	648	250	-469	-182	0.690	0.304	1.00	Yes	0.379	0.167	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.89**
		$U_{30} - L_{31}$	739.26	-----	71	157	-287	421	462	6	6	50	0.731	0.265	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.51**
		$U_{31} - L_{32}$	727.81	-----	-62	71	-415	385	-45	18	228	137	0.756	0.242	1.00	Yes	0.416	0.124	0.54	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.30**
		$U_{32} - L_{33}$	871.45	-----	-55	97	-339	362	-184	131	94	325	0.794	0.198	1.00	Yes	0.437	0.109	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		$U_{33} - L_{34}$	857.20	-----	-54	97	-355	285	31	242	267	429	0.781	0.209	1.00	Yes	0.429	0.115	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.96**
		$U_{34} - L_{35}$	808.75	-----	-54	89	-327	227	126	139	263	204	0.800	0.191	1.00	Yes	0.440	0.105	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.96**
		$U_{35} - L_{36}$	735.82	-----	-83	95	-354	244	38	48	125	45	0.797	0.202	1.00	Yes	0.438	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.77**
		$U_{36} - L_{37}$	598.79	-----	-47	53	-239	109	-49	-48	-17	-73	0.764	0.228	1.00	Yes	0.481	0.127	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.73**
		$U_{38} - L_{37}$	-----	-304.12	67	-56	-71	-92	-32	51	-641	-338	-----	-----	-----	-----	-----	-----	-----	-----	0.657	0.341	1.00	Yes	0.583	0.105	0.69	Yes	1.00	**8.10**
		$U_{39} - L_{38}$	252.85	-197.61	60	-56	-95	24	-32	-17	-1434	-251	0.455	0.537	1.00	Yes	0.250	0.295	0.55	Yes	0.471	0.493	0.97	Yes	0.418	0.122	0.55	Yes	1.00	**6.26**
		$U_{40} - L_{39}$	368.46	-106.76	25	-28	-136	87	-37	-36	-496	-544	0.663	0.332	1.00	Yes	0.364	0.183	0.55	Yes	0.256	0.280	0.54	Yes	0.226	0.174	0.41	Yes	1.00	**4.81**
		$U_{41} - L_{40}$	527.89	-----	-8	-6	-170	119	-71	-60	-636	-410	0.704	0.288	1.00	Yes	0.387	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		$U_{42} - L_{41}$	587.14	-----	-34	19	-311	252	-46	-45	-686	-479	0.694	0.301	1.00	Yes	0.382	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.76**
		$U_{43} - L_{42}$	712.60	-----	-51	31	-382	300	11	-31	-731	-538	0.705	0.287	1.00	Yes	0.388	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.00**
		$U_{44} - L_{43}$	758.85	-----	-23	30	-438	391	-50	19	-189	-266	0.751	0.243	1.00	Yes	0.413	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.49**
	Structure 3	$U_0 - L_1$	699.04	-----	-108	90	-421	338	-65	-53	29	-132	0.757	0.237	1.00	Yes	0.416	0.130	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.14**
		$U_1 - L_2$	733.34	-----	-92	60	-345	271	-127	-45	-176	-75	0.794	0.206	1.00	Yes	0.437	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.50**
		$U_2 - L_3$	659.23	-----	-88	55	-350	268	-47	80	-17	-4	0.779	0.212	1.00	Yes	0.429	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.06**
		$U_3 - L_4$	557.22	-----	-24	5	-161	111	77	48	2	-31	0.817	0.181	1.00	Yes	0.449	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.52**
		$U_4 - L_5$	432.24	-50.00	-2	-14	-149	103	51	-107	-94	-54	0.777	0.221	1.00	Yes	0.428	0.121	0.55	Yes	0.119	0.091	0.21	Yes	0.106	0.190	0.30	Yes	1.00	**5.70**
		$U_5 - L_6$	401.65	-207.99	38	-54	-161	-60	-37	-216	-150	-164	0.722	0.268	1.00	Yes	0.397	0.148	0.55	Yes	0.487	0.313	0.81	Yes	0.440	0.206	0.65	Yes	1.00	**9.69**
		$U_7 - L_6$	410.53	-----	-26	7	-99	14	-151	-197	-443	-365	0.738	0.255	1.00	Yes	0.406	0.140	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.10**
		$U_8 - L_7$	534.10	-----	-67	52	-181	141	-130	-138	-947	-373	0.651	0.343	1.00	Yes	0.410	0.198	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		$U_8 - L_8$	760.07	-----	-62	81	-260	80	-91	-140	-791	-811	0.752	0.242	1.00	Yes	0.414	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.28**
		$U_{10} - L_9$	919.25	-----	-44	132	-242	174	91	-3	-827	-694	0.776	0.221	1.00	Yes	0.481	0.126	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		$U_{11} - L_{10}$	957.80	-----	-74	125	-298	260	363	203	-754	-557	0.766	0.229	1.00	Yes	0.474	0.130	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.61**
		$U_{12} - L_{11}$	938.07	-----	55	175	-91	361	673	283	-578	-335	0.750	0.246	1.00	Yes	0.465	0.139	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		$U_{12} - L_{13}$	667.70	-----	87	177	-105	312	66	-152	4	130	0.789	0.205	1.00	Yes	0.434	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.27**
		$U_{13} - L_{14}$	656.14	-----	-16	67	-302	267	-22	22	14	280	0.776	0.223	1.00	Yes	0.427	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.65**
		$U_{14} - L_{15}$	693.47	-----	14	161	-195	227	-20	124	101	241	0.820	0.173	1.00	Yes	0.451	0.095	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.48**
		$U_{15} - L_{16}$	565.63	-----	7	78	-112	9	129	212	45	150	0.829	0.163	1.00	Yes	0.456	0.090	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.90**
		$U_{17} - L_{16}$	-----	-321.16	62	1	-57	-101	232	202	-385	-170	-----	-----	-----	-----	-----	-----	-----	-----	0.734	0.265	1.00	Yes	0.680	0.129	0.81	Yes	1.00	**6.90**
		$U_{18} - L_{17}$	146.01	-256.85	55	-29	-80	-12	272	181	-1071	-214	0.263	0.412	0.68	Yes	0.144	0.227	0.38	Yes	0.591	0.399	1.00	Yes	0.543	0.102	0.65	Yes	1.00	**5.96**
		$U_{19} - L_{18}$	382.29	-183.74	36	-24	-102	21	248	194	-614	-558	0.688	0.309	1.00	Yes	0.378	0.170	0.55	Yes	0.421	0.318	0.74	Yes	0.389	0.131	0.52	Yes	1.00	**4.86**
		$U_{20} - L_{19}$	566.97	-----	25	22	-49	23	-780	-456	-220	-210	0.744	0.253	1.00	Yes	0.449	0.139	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.01**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

				Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression											
	Vehicle	Pedestrian	Max.	Max.	Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
DL Factor:	1.300	1.300	Tension	Comp.	Start	End	Start	End	Start	End	Start	End																					
LL Factor:	1.300	1.300	(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
Center Truss - Upper Chord	Structure 1	U_0 - U_1	-----	-562.22	121	-654	-350	-553	301	-370	293	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.228	1	Yes	0.758	0.155	0.92	Yes	1.00	**9.79**
		U_1 - U_2	87.46	-577.86	-31	100	-211	-633	-48	-232	258	-167	0.100	0.194	0.30	Yes	0.069	0.133	0.21	Yes	0.786	0.209	1	Yes	0.779	0.151	0.93	Yes	1.00	**6.13**
		U_2 - U_3	282.68	-642.21	-41	390	-537	-210	-59	-89	264	-263	0.324	0.172	0.50	Yes	0.219	0.113	0.34	Yes	0.874	0.116	1	Yes	0.866	0.128	1.00	Yes	1.00	**6.59**
		U_3 - U_4	371.65	-553.81	124	298	-323	-766	-117	-96	20	-171	0.426	0.211	0.64	Yes	0.292	0.145	0.44	Yes	0.754	0.246	1	Yes	0.747	0.182	0.93	Yes	1.00	**5.36**
		U_4 - U_5	383.20	-562.18	139	296	-1007	-107	-216	-20	-87	-94	0.439	0.276	0.72	Yes	0.301	0.189	0.50	Yes	0.765	0.231	1	Yes	0.758	0.239	1.00	Yes	1.00	**5.49**
		U_5 - U_6	682.76	-331.55	286	432	-355	142	-388	-12	-4	-663	0.783	0.215	1.00	Yes	0.528	0.142	0.68	Yes	0.451	0.210	0.67	Yes	0.447	0.103	0.55	Yes	1.00	**7.27**
		U_6 - U_7	887.02	-----	344	206	-454	9	-360	147	-105	-104	0.848	0.146	1.00	Yes	0.593	0.100	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.97**
		U_7 - U_8	989.51	-----	-11	1193	-632	1728	-252	452	-387	53	0.686	0.308	1.00	Yes	0.478	0.210	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.13**
		U_8 - U_9	857.47	-----	1500	-495	618	-162	67	343	32	185	0.703	0.294	1.00	Yes	0.481	0.200	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		U_9 - U_{10}	712.76	-----	430	-76	61	27	386	787	158	301	0.773	0.223	1.00	Yes	0.524	0.149	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.55**
		U_{10} - U_{11}	-----	-344.30	1789	-2473	84	-180	1214	304	243	55	-----	-----	-----	-----	-----	-----	-----	-----	0.443	0.448	0.9	Yes	0.439	0.554	1.00	Yes	1.00	**31.43**
		U_{11} - U_{12}	-----	-890.25	217	-103	-47	-727	161	102	407	210	-----	-----	-----	-----	-----	-----	-----	-----	0.843	0.148	1	Yes	0.835	0.121	0.96	Yes	1.00	**5.38**
		U_{12} - U_{13}	-----	-1278.12	7	-155	-349	-494	197	-45	785	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.131	1	Yes	0.854	0.068	0.93	Yes	1.00	**5.96**
		U_{13} - U_{14}	-----	-1389.66	-105	-353	-472	-1432	150	65	141	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.187	1	Yes	0.797	0.158	0.96	Yes	1.00	**4.72**
		U_{14} - U_{15}	-----	-1346.23	-253	-188	-1559	-580	182	-56	265	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.214	1	Yes	0.772	0.172	0.95	Yes	1.00	**4.20**
		U_{15} - U_{16}	-----	-1511.09	-26	-410	-594	-644	11	-56	596	181	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.116	1	Yes	0.866	0.071	0.94	Yes	1.00	**6.71**
		U_{16} - U_{17}	-----	-1419.26	-314	-186	-1270	-458	48	-171	179	-236	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.171	1	Yes	0.814	0.140	0.96	Yes	1.00	**5.37**
		U_{17} - U_{18}	-----	-1057.53	-157	-109	-683	15	-151	-204	-136	-561	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.161	1	Yes	0.827	0.111	0.94	Yes	1.00	**5.69**
		U_{18} - U_{19}	-----	-723.56	-192	-30	-651	38	-174	-162	-218	-313	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.170	1	Yes	0.814	0.131	0.95	Yes	1.00	**5.22**
		U_{19} - U_{20}	-----	-653.26	-153	-117	-1300	342	-41	24	117	-504	-----	-----	-----	-----	-----	-----	-----	-----	0.742	0.256	1	Yes	0.735	0.262	1.00	Yes	1.00	**13.23**
	Structure 2	U_0 - U_1	-----	-632.49	576	-1458	-83	-28	530	275	17	-62	-----	-----	-----	-----	-----	-----	-----	-----	0.752	0.227	0.98	Yes	0.747	0.248	1.00	Yes	1.00	**12.55**
		U_1 - U_2	-----	-828.34	-87	-132	-147	-918	45	17	361	-150	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.188	1	Yes	0.799	0.139	0.94	Yes	1.00	**8.95**
		U_2 - U_3	-----	-1144.40	-36	-1123	-261	-880	1130	128	314	-39	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.181	1	Yes	0.812	0.114	0.93	Yes	1.00	**5.96**
		U_3 - U_4	-----	-1454.38	-340	-232	-916	-1135	96	-348	436	347	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.166	1	Yes	0.828	0.101	0.93	Yes	1.00	**4.90**
		U_4 - U_5	-----	-1550.19	-335	-261	-1006	-1462	-111	-391	582	32	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.190	1	Yes	0.796	0.121	0.92	Yes	1.00	**4.65**
		U_5 - U_6	-----	-1635.77	-330	111	-1282	-563	-155	-329	584	-3	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.153	1	Yes	0.840	0.106	0.95	Yes	1.00	**4.82**
		U_6 - U_7	-----	-1381.93	-206	-23	-886	-1472	-118	-280	347	-160	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.204	1	Yes	0.787	0.131	0.92	Yes	1.00	**4.11**
		U_7 - U_8	-----	-1377.40	-124	-153	-1581	-744	-207	-232	-145	-338	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.203	1	Yes	0.784	0.141	0.93	Yes	1.00	**3.99**
		U_8 - U_9	63.97	-1261.05	-208	209	-926	-303	-299	-201	335	-88	0.037	0.126	0.17	Yes	0.026	0.083	0.11	Yes	0.861	0.134	1	Yes	0.855	0.098	0.96	Yes	1.00	**4.97**
		U_9 - U_{10}	212.62	-941.79	-33	345	-1382	-101	-316	-140	153	-92	0.156	0.202	0.36	Yes	0.106	0.137	0.25	Yes	0.818	0.176	1	Yes	0.813	0.168	0.99	Yes	1.00	**4.41**
		U_{10} - U_{11}	731.47	-836.82	247	509	-980	-119	-202	-38	-221	-385	0.618	0.185	0.81	Yes	0.420	0.121	0.55	Yes	0.837	0.159	1	Yes	0.832	0.138	0.97	Yes	1.00	**7.20**
		U_{11} - U_{12}	898.02	-----	241	560	-1246	760	-380	-158	-395	-508	0.759	0.238	1.00	Yes	0.510	0.159	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.58**
		U_{12} - U_{13}	1244.99	-----	432	62	-593	-349	-466	14	-870	-793	0.841	0.158	1.00	Yes	0.599	0.109	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.98**
		U_{13} - U_{14}	1260.78	-----	-205	2216	-1207	3803	-343	303	-255	118	0.620	0.376	1.00	Yes	0.439	0.246	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.54**
		U_{14} - U_{15}	1305.51	-----	3510	-530	1551	-121	-139	459	-120	241	0.642	0.356	1.00	Yes	0.454	0.233	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.14**
		U_{15} - U_{16}	1332.67	-----	218	861	-441	-833	-406	93	618	1101	0.806	0.191	1.00	Yes	0.573	0.131	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.51**
		U_{16} - U_{17}	1012.49	-----	1334	-471	319	35	798	451	349	183	0.746	0.251	1.00	Yes	0.496	0.165	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.35**
		U_{17} - U_{18}	607.64	-452.04	1246	-1782	94	-1143	194	-382	554	468	0.610	0.384	1.00	Yes	0.406	0.254	0.67	Yes	0.537	0.263	0.8	Yes	0.534	0.302	0.84	Yes	1.00	**17.64**
		U_{18} - U_{19}	852.42	-100.78	626	548	-37	-452	-237	-72	215	17	0.856	0.141	1.00	Yes	0.561	0.090	0.66	Yes	0.120	0.130	0.26	Yes	0.119	0.106	0.23	Yes	1.00	**9.72**
		U_{19} - U_{20}	539.84	-756.56	425	324	-273	-712	-159	65	384	245	0.506	0.166	0.68	Yes	0.336	0.109	0.45	Yes	0.840	0.154	1	Yes	0.835	0.114	0.95	Yes	1.00	**6.87**
		U_{20} - U_{21}	459.37	-922.31	262	274	-467	-482	-104	-25	719	-97	0.356	0.148	0.51	Yes	0.249	0.100	0.35	Yes	0.848	0.144	1	Yes	0.842	0.070	0.92	Yes	1.00	**6.68**
		U_{21} - U_{22}	315.57	-856.66	123	132	-573	-1094	-43	56	50	-154	0.245	0.175	0.43	Yes	0.174	0.117	0.30	Yes	0.788	0.206	1	Yes	0.782	0.158	0.95	Yes	1.00	**5.12**
		U_{22} - U_{23}	269.16	-826.90	126	94	-1353	-519	-43	-22	90	-131	0.209	0.210	0.42	Yes	0.148	0.140	0.29	Yes	0.760	0.236	1	Yes	0.755	0.196	0.96	Yes	1.00	**4.57**
		U_{23} - U_{24}	824.32	-820.52	545	370	-1037	-212	-529	75	-176	-489	0.639	0.208	0.85	Yes	0.448	0.136	0.59	Yes	0.754	0.237	1	Yes	0.749	0.150	0.90	Yes	1.00	**11.73**
		U_{24} - U_{25}	429.80	-756.08	233	318	-879	-210	-207	44	89	-146	0.403	0.169	0.58	Yes	0.267	0.111	0.38	Yes	0.839	0.154	1	Yes	0.834	0.141	0.98	Yes	1.00	**5.86**
		U_{25} - U_{26}	788.43	-611.00	482	540	-954	348	-270	155	-42	-233	0.791	0.201	1.00	Yes	0.519	0.128	0.65	Yes	0.726	0.193	0.92	Yes	0.722	0.162	0.89	Yes	1.00	**9.38**
		U_{26} - U_{27}	747.55	-----	370	409	-1226	623	-198	95	-275	-145	0.750	0.248	1.00	Yes	0.500	0.165	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.60**
		U_{27} - U_{28}	1085.84	-----	428	546	-985	855	-287	155	-415	-678	0.800	0.195	1.00	Yes	0.532	0.128	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.81**
		U_{28} - U_{29}	1433.07	-----	346	6	-755	-138	-215	332	-521	-189	0.866	0.130	1.00	Yes	0.616	0.088	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.73**
		U_{29} - U_{30}	1277.91	-----	-77	2012	-607	3569	-80	548	-472	240	0.628	0.368	1.00	Yes	0.445	0.241	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.24**
		U_{30} - U_{31}	1260.71	-----	3615	-859	1501	-257	60	538	118	334	0.620	0.371	1.00	Yes	0.439	0.243	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.39**
		U_{31} - U_{32}	1180.77	-----	146	571	-414	-684	-114	176	869	1132	0.797	0.194	1.00	Yes	0.568	0.135	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.28**
		U_{32} - U_{33}	871.57	-----	1119	-1323	233	-78	626	-101	384	137	0.736	0.263	1.00	Yes	0.495	0.176	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.64**
		U_{33} - U_{34}	844.67	-814.57	551	356	-190	-1057	101	248	527	302	0.713	0.213	0.93	Yes	0.486	0.139	0.63	Yes	0.814	0.178	1	Yes	0.809	0.149	0.96	Yes	1.00	**7.60**
		U_{34} - U_{35}	378.92	-978.78	464	75	-195	-1173	106	39	383	-13	0.278	0.184	0.47	Yes	0.188	0.125	0.32	Yes	0.850	0.143	1	Yes	0.845	0.143	0.99	Yes	1.00	**5.39**
		U_{35} - U_{36}	122.10	-1264.07	246	-189	-449	-821	93	131	551	111	0.070	0.133	0.21	Yes	0.049	0.089	0.14	Yes	0.863	0.131	1	Yes	0.857	0.087	0.95	Yes	1.00	**4.99**
		U_{36} - U_{37}	-----	-1380.82	-70	-12	-773	-1631	129	-67	456	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.205	1	Yes	0.786	0.145	0.94	Yes	1.00	**4.45**
		U_{37} - U_{38}	-----	-1371.93	118	-175	-1533	-895	21	39	242	61	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.207	1	Yes	0.781	0.137	0.92	Yes	1.00	**4.40**
		U_{38} - U_{39}	-----	-1670.06	195	-329	-706	-1179	92	-62	516	-13	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.129	1	Yes	0.857	0.098	0.96	Yes	1.00	**5.76**
		U_{39} - U_{40}	-----	-1510.79	-275	-454	-1923	-872	-115	-119	219	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.212	1	Yes	0.776	0.159	0.94	Yes	1.00	**4.39**
		U_{40} - U_{41}	-----	-1470.66	-345	-410	-938	-855	-90	-97	-199	-415	-----	-----	-----	-----	-----	-----	-----	-----	0.843	0.149	1	Yes	0.837	0.084	0.93	Yes	1.00	**5.09**
		U_{41} - U_{42}	-----	-1177.86	-216	-192	-1174	-130	-73	103	-157	-381	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.156	1	Yes	0.836	0.120	0.96	Yes	1.00	**5.32**
		U_{42} - U_{43}	-----	-857.36	-228	-57	-854	-43	187	-9	-232	-374	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.161	1	Yes	0.827	0.130	0.96	Yes	1.00	**5.84**
		U_{43} - U_{44}	-----	-614.42	-28	-234	-1353	272	-9	19	-94	-386	-----	-----	-----	-----	-----	-----	-----	-----	0.730	0.262	1	Yes	0.726	0.230	0.96	Yes	1.00	**10.05**
	Structure 3	U_0 - U_1	-----	-656.47	577	-1197	-6	-1205	618	-183	455	-200	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.247	1	Yes	0.739	0.242	0.99	Yes	1.00	**14.28**
		U_1 - U_2	-----	-698.48	-4	-564	-69	-98	438	645	247	511	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.203	1	Yes	0.786	0.113	0.90	Yes	1.00	**6.01**
		U_2 - U_3	-----	-1055.72	21	-668	-91	-125	787	-29	375	-5	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.162	1	Yes	0.826	0.109	0.94	Yes	1.00	**6.08**
		U_3 - U_4	-----	-1435.97	-141	-193	-502	-1089	124	-247	487	332	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.167	1	Yes	0.823	0.120	0.95	Yes	1.00	**6.19**
		U_4 - U_5	-----	-1459.89	-318	-28	-839	-403	-24	-318	748	-165	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.144	1	Yes	0.837	0.093	0.93	Yes	1.00	**5.61**
		U_5 - U_6	-----	-1370.01	-148	-223	-614	-1347	-52	-211	-58	-306	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.198	1	Yes	0.785	0.149	0.94	Yes	1.00	**4.92**
		U_6 - U_7	-----	-1342.56	-316	-92	-1704	-420	-80	-230	38	-198	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.216	1	Yes	0.770	0.188	0.96	Yes	1.00	**4.37**
		U_7 - U_8	-----	-1266.49	-121	-27	-511	-424	-226	-219	0	-669	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.143	1	Yes	0.846	0.070	0.92	Yes	1.00	**5.35**
		U_8 - U_9	-----	-906.87	-102	169	-841	-1	-214	-126	84	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.138	1	Yes	0.851	0.139	1.00	Yes	1.00	**4.82**
		U_9 - U_{10}	207.27	-616.09	-38	246	-895	251	-312	-140	-221	-381	0.225	0.262	0.49	Yes	0.150	0.168	0.32	Yes	0.793	0.199	1	Yes	0.786	0.200	0.99	Yes	1.00	**6.94**
		U_{10} - U_{11}	738.54	-35.11	279	234	-482	241	-356	2	-543	-412	0.801	0.195	1.00	Yes	0.543	0.131	0.68	Yes	0.045	0.120	0.17	Yes	0.045	0.108	0.16	Yes	1.00	**10.34**
		U_{11} - U_{12}	807.89	-----	-151	1133	-843	1656	-334	200	-468	-223	0.662	0.335	1.00	Yes	0.453	0.228	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.44**
		U_{12} - U_{13}	1009.10	-----	1773	-409	646	-45	-287	142	-147	55	0.699	0.298	1.00	Yes	0.488	0.203	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		U_{13} - U_{14}	877.69	-----	240	398	-28	-309	-174	308	273	497	0.839	0.153	1.00	Yes	0.587	0.105	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.75**
		U_{14} - U_{15}	363.69	-----	1998	-563	147	58	633	-178	132	40	0.417	0.582	1.00	Yes	0.281	0.380	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**27.06**
		U_{15} - U_{16}	452.27	-560.69	356	197	-165	-839	-36	174	336	209	0.518	0.256	0.78	Yes	0.356	0.176	0.54	Yes	0.763	0.227	1	Yes	0.756	0.200	0.96	Yes	1.00	**6.72**
		U_{16} - U_{17}	385.20	-588.59	347	109	-779	-346	20	89	202	-11	0.442	0.219	0.67	Yes	0.303	0.150	0.46	Yes	0.801	0.193	1	Yes	0.794	0.185	0.98	Yes	1.00	**5.69**
		U_{17} - U_{18}	239.22	-659.56	358	-103	-288	-375	-83	248	98	-204	0.274	0.131	0.41	Yes	0.185	0.086	0.28	Yes	0.897	0.096	1	Yes	0.889	0.089	0.98	Yes	1.00	**6.04**
		U_{18} - U_{19}	78.60	-572.76	99	-19	-761	-179	215	55	206	5	0.090	0.217	0.31	Yes	0.062	0.149	0.22	Yes	0.779	0.214	1	Yes	0.772	0.181	0.96	Yes	1.00	**5.14**
		U_{19} - U_{20}	50.09	-615.17	234	-500	-685	69	-8	65	220	-308	0.057	0.215	0.28	Yes	0.039	0.147	0.19	Yes	0.837	0.152	0.99	Yes	0.830	0.163	1.00	Yes	1.00	**10.04**

Moment (Start) AI Operating

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Lower Chord	Structure 1	L_0 - L_1			128.06	-124.39	1063	-1465	-378	292	-460	-1692	51	187	0.196	0.803	1.00	Yes	0.115	0.481	0.60	Yes	0.226	0.564	0.79	Yes	0.224	0.440	0.67	Yes	1.00	**33.90**
		L_1 - L_2			418.73	-----	52	-114	-116	-705	-13	36	-677	285	0.641	0.357	1.00	Yes	0.391	0.233	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.37**
		L_2 - L_3			706.96	-206.12	26	172	-607	-557	1	-17	198	-164	0.813	0.178	1.00	Yes	0.471	0.107	0.58	Yes	0.282	0.183	0.47	Yes	0.279	0.147	0.43	Yes	1.00	**8.10**
		L_3 - L_4			665.88	-317.26	90	350	-378	-703	-15	-7	-348	273	0.766	0.226	1.00	Yes	0.455	0.144	0.60	Yes	0.433	0.201	0.64	Yes	0.429	0.170	0.60	Yes	1.00	**7.17**
		L_4 - L_5			128.98	-510.32	115	461	-836	423	134	-112	-69	-30	0.167	0.245	0.42	Yes	0.100	0.161	0.27	Yes	0.785	0.176	0.97	Yes	0.777	0.221	1.00	Yes	1.00	**5.06**
		L_5 - L_6			-----	-736.21	144	567	-283	198	29	95	198	153	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.135	1	Yes	0.849	0.126	0.98	Yes	1.00	**5.36**
		L_6 - L_7			-----	-1121.28	188	-19	-598	314	139	-46	-104	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.913	0.040	0.96	Yes	0.903	0.094	1.00	Yes	1.00	**7.67**
		L_7 - L_8			-----	-1245.80	-33	584	-98	1455	41	72	106	154	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.193	1	Yes	0.789	0.193	0.99	Yes	1.00	**3.98**
		L_8 - L_9			-----	-1271.60	1416	-111	554	-47	132	83	38	-14	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.183	1	Yes	0.805	0.188	1.00	Yes	1.00	**4.31**
		L_9 - L_{10}			-----	-1116.71	609	-602	-108	104	103	100	276	-23	-----	-----	-----	-----	-----	-----	-----	-----	0.909	0.051	0.97	Yes	0.899	0.096	1.00	Yes	1.00	**12.23**
		L_{10} - L_{11}			-----	-538.31	655	-389	157	-151	110	41	52	18	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.082	0.91	Yes	0.820	0.173	1.00	Yes	1.00	**7.04**
		L_{11} - L_{12}			163.55	-----	2173	-2630	207	-258	-247	-505	-38	60	0.212	0.785	1.00	Yes	0.127	0.515	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**46.64**
		L_{12} - L_{13}			1124.90	-----	111	-79	-296	-466	-26	-41	7	-178	0.888	0.104	1.00	Yes	0.568	0.062	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.27**
		L_{13} - L_{14}			1275.00	-----	340	-1571	91	-1370	-252	81	-325	229	0.750	0.244	1.00	Yes	0.486	0.149	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.74**
		L_{14} - L_{15}			1550.80	-----	-349	-82	-1855	-307	-68	-51	-157	91	0.758	0.235	1.00	Yes	0.492	0.142	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.09**
		L_{15} - L_{16}			1699.42	-----	-185	-390	-956	-1165	-79	10	319	227	0.830	0.163	1.00	Yes	0.533	0.096	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.78**
		L_{16} - L_{17}			1257.86	-----	-392	33	-1225	74	-35	-63	-260	-77	0.795	0.203	1.00	Yes	0.516	0.125	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.48**
		L_{17} - L_{18}			939.35	-----	-165	-65	-710	145	-65	-5	-228	-316	0.818	0.177	1.00	Yes	0.524	0.107	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.78**
		L_{18} - L_{19}			438.18	-----	-229	164	-915	442	-1	-27	-225	207	0.671	0.321	1.00	Yes	0.454	0.201	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.95**
		L_{19} - L_{20}			84.47	-280.49	-93	18	-1643	953	-36	-8	591	133	0.129	0.616	0.75	Yes	0.079	0.411	0.49	Yes	0.509	0.347	0.86	Yes	0.505	0.493	1.00	Yes	1.00	**21.36**
	Structure 2	L_0 - L_1			68.74	-22.06	1062	-2605	-229	233	-360	-1252	8	28	0.104	0.894	1.00	Yes	0.063	0.446	0.51	Yes	0.039	0.638	0.68	Yes	0.039	0.628	0.67	Yes	1.00	**25.68**
		L_1 - L_2			568.20	-----	418	-1158	132	-129	-411	239	82	84	0.690	0.303	1.00	Yes	0.410	0.193	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.92**
		L_2 - L_3			985.85	-----	193	-1028	-166	-801	612	545	279	-75	0.777	0.214	1.00	Yes	0.509	0.130	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.36**
		L_3 - L_4			1399.42	-----	74	-461	-370	-1388	33	115	86	159	0.822	0.175	1.00	Yes	0.554	0.108	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**15.71**
		L_4 - L_5			1845.70	-----	-206	-158	-1046	-1294	15	-13	236	-83	0.860	0.138	1.00	Yes	0.570	0.082	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.01**
		L_5 - L_6			1926.63	-----	-11	-249	-788	-1596	-92	56	-353	176	0.827	0.164	1.00	Yes	0.555	0.100	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.47**
		L_6 - L_7			1956.80	-----	-302	-5	-1687	-1620	55	-33	256	21	0.828	0.164	1.00	Yes	0.550	0.096	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.29**
		L_7 - L_8			1361.53	-82.62	-146	303	-1487	-444	-60	80	-601	-243	0.781	0.213	1.00	Yes	0.513	0.128	0.65	Yes	0.056	0.192	0.25	Yes	0.056	0.164	0.22	Yes	1.00	**5.24**
		L_8 - L_9			1118.00	-349.90	-73	536	-1029	-48	49	-141	196	827	0.782	0.217	1.00	Yes	0.527	0.138	0.67	Yes	0.290	0.150	0.44	Yes	0.288	0.139	0.43	Yes	1.00	**5.84**
		L_9 - L_{10}			772.17	-741.39	-22	704	-1348	205	-42	6	356	-84	0.689	0.259	0.95	Yes	0.401	0.160	0.57	Yes	0.784	0.139	0.93	Yes	0.779	0.216	1.00	Yes	1.00	**7.41**
		L_{10} - L_{11}			92.15	-732.10	37	567	-766	489	126	-47	-210	-141	0.092	0.162	0.26	Yes	0.054	0.102	0.16	Yes	0.866	0.103	0.97	Yes	0.860	0.134	1.00	Yes	1.00	**5.12**
		L_{11} - L_{12}			-----	-1000.09	-25	916	-681	1280	16	63	-26	20	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.102	0.93	Yes	0.820	0.174	1.00	Yes	1.00	**4.86**
		L_{12} - L_{13}			-----	-1451.55	178	-781	-958	-372	73	-52	29	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.119	1	Yes	0.868	0.095	0.97	Yes	1.00	**8.17**
		L_{13} - L_{14}			-----	-1458.91	-488	1434	-1181	2972	-78	-111	93	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.174	0.92	Yes	0.734	0.260	1.00	Yes	1.00	**3.60**
		L_{14} - L_{15}			-----	-1480.39	2894	-1120	1394	-536	-80	-75	-128	-109	-----	-----	-----	-----	-----	-----	-----	-----	0.752	0.169	0.93	Yes	0.745	0.253	1.00	Yes	1.00	**3.41**
		L_{15} - L_{16}			-----	-1486.59	-424	-149	-1101	-87	18	87	-2	3	-----	-----	-----	-----	-----	-----	-----	-----	0.897	0.103	1	Yes	0.889	0.109	1.00	Yes	1.00	**4.84**
		L_{16} - L_{17}			-----	-1125.30	1384	-270	612	-64	40	-8	22	-4	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.131	0.96	Yes	0.820	0.171	1.00	Yes	1.00	**4.35**
		L_{17} - L_{18}			-----	-824.90	787	-513	354	-47	11	0	4	28	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.075	0.95	Yes	0.866	0.126	1.00	Yes	1.00	**5.39**
		L_{18} - L_{19}			-----	-661.19	595	155	205	-333	-47	-70	116	-55	-----	-----	-----	-----	-----	-----	-----	-----	0.887	0.096	0.99	Yes	0.881	0.115	1.00	Yes	1.00	**5.40**
		L_{19} - L_{20}			283.11	-674.42	501	279	119	-481	-26	-42	-178	137	0.321	0.124	0.45	Yes	0.190	0.078	0.27	Yes	0.904	0.085	0.99	Yes	0.899	0.097	1.00	Yes	1.00	**6.97**
		L_{20} - L_{21}			1054.85	-809.60	590	256	-534	-890	14	-64	9	-203	0.841	0.152	1.00	Yes	0.552	0.091	0.65	Yes	0.765	0.126	0.9	Yes	0.760	0.130	0.89	Yes	1.00	**9.46**
		L_{21} - L_{22}			709.56	-871.91	467	351	-659	-1185	-33	-104	164	19	0.566	0.191	0.76	Yes	0.378	0.119	0.50	Yes	0.824	0.156	0.98	Yes	0.818	0.173	1.00	Yes	1.00	**10.92**
		L_{22} - L_{23}			888.83	-449.04	113	262	-1875	-315	59	-61	-98	66	0.709	0.284	1.00	Yes	0.474	0.177	0.66	Yes	0.424	0.233	0.66	Yes	0.421	0.274	0.70	Yes	1.00	**6.40**
		L_{23} - L_{24}			998.61	-701.65	212	461	-1092	-612	4	48	382	278	0.796	0.201	1.00	Yes	0.522	0.121	0.65	Yes	0.663	0.192	0.86	Yes	0.658	0.159	0.82	Yes	1.00	**8.91**
		L_{24} - L_{25}			433.38	-621.51	242	465	-843	217	97	-98	-167	35	0.491	0.188	0.68	Yes	0.290	0.120	0.42	Yes	0.833	0.122	0.96	Yes	0.828	0.163	1.00	Yes	1.00	**7.05**
		L_{25} - L_{26}			-----	-666.73	157	567	-567	391	11	72	3	72	-----	-----	-----	-----	-----	-----	-----	-----	0.894	0.087	0.99	Yes	0.889	0.109	1.00	Yes	1.00	**6.34**
		L_{26} - L_{27}			-----	-817.83	229	412	-704	855	131	-8	86	-22	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.076	0.95	Yes	0.859	0.137	1.00	Yes	1.00	**6.23**
		L_{27} - L_{28}			-----	-1133.04	166	1098	-768	1341	125	214	16	-58	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.125	0.96	Yes	0.825	0.165	1.00	Yes	1.00	**9.74**
		L_{28} - L_{29}			-----	-1458.05	25	-812	-395	-970	186	98	-45	-87	-----	-----	-----	-----	-----	-----	-----	-----	0.879	0.112	1	Yes	0.872	0.096	0.97	Yes	1.00	**5.00**
		L_{29} - L_{30}			-----	-1476.90	-484	1307	-1121	2922	21	13	15	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.750	0.165	0.92	Yes	0.743	0.255	1.00	Yes	1.00	**3.65**
		L_{30} - L_{31}			-----	-1455.01	2966	-1096	1336	-472	-42	-44	-6	-18	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.171	0.92	Yes	0.732	0.259	1.00	Yes	1.00	**3.60**
		L_{31} - L_{32}			-----	-1451.36	-295	-164	-965	-298	5	15	155	165	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.114	1	Yes	0.868	0.096	0.97	Yes	1.00	**5.30**
		L_{32} - L_{33}			-----	-995.99	1274	-584	529	-149	43	12	45	27	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.111	0.94	Yes	0.817	0.174	1.00	Yes	1.00	**4.78**
		L_{33} - L_{34}			-----	-763.57	543	129	362	-173	1	-11	12	82	-----	-----	-----	-----	-----	-----	-----	-----	0.903	0.072	0.98	Yes	0.897	0.095	1.00	Yes	1.00	**5.24**
		L_{34} - L_{35}			792.15	-782.40	773	21	27	-1063	4	-52	180	-141	0.707	0.192	0.90	Yes	0.412	0.119	0.54	Yes	0.827	0.104	0.94	Yes	0.822	0.170	1.00	Yes	1.00	**7.40**
		L_{35} - L_{36}			1165.17	-459.56	598	-3	95	-991	-43	-8	-441	246	0.815	0.175	1.00	Yes	0.549	0.110	0.66	Yes	0.381	0.089	0.47	Yes	0.378	0.134	0.52	Yes	1.00	**6.59**
		L_{36} - L_{37}			1399.48	-152.26	407	-9	-433	-1489	14	-17	303	34	0.802	0.189	1.00	Yes	0.527	0.112	0.64	Yes	0.103	0.171	0.28	Yes	0.103	0.164	0.27	Yes	1.00	**5.71**
		L_{37} - L_{38}			1897.76	-----	163	-338	-1799	-1529	-57	36	-507	270	0.803	0.189	1.00	Yes	0.534	0.112	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.98**
		L_{38} - L_{39}			1847.51	-----	-290	-53	-1688	-1235	-5	-67	335	841	0.793	0.202	1.00	Yes	0.532	0.126	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.37**
		L_{39} - L_{40}			1736.60	-----	-183	-366	-1665	-700	-69	-8	357	-66	0.810	0.181	1.00	Yes	0.536	0.108	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.13**
		L_{40} - L_{41}			1410.14	-----	-345	4	-1210	-84	-1	2	-286	-145	0.829	0.164	1.00	Yes	0.558	0.102	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.56**
		L_{41} - L_{42}			1037.60	-----	-122	-123	-1037	114	46	103	-257	-293	0.818	0.181	1.00	Yes	0.536	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.80**
		L_{42} - L_{43}			578.84	-----	-211	134	-1222	395	76	26	-165	286	0.703	0.296	1.00	Yes	0.418	0.189	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.18**
		L_{43} - L_{44}			-----	-166.58	245	-186	-3722	1339	-89	-26	1352	395	-----	-----	-----	-----	-----	-----	-----	-----	0.240	0.656	0.9	Yes	0.238	0.757	1.00	Yes	1.00	**37.27**
	Structure 3	L_0 - L_1			23.40	-152.86	1420	-2360	-93	54	-267	-1209	3	13	0.036	0.959	1.00	Yes	0.022	0.636	0.66	Yes	0.278	0.572	0.85	Yes	0.275	0.708	0.99	Yes	1.00	**33.63**
		L_1 - L_2			450.85	-----	386	-803	146	-165	-290	297	36	60	0.690	0.303	1.00	Yes	0.467	0.191	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.01**
		L_2 - L_3			907.98	-----	178	-774	-46	-142	448	318	52	57	0.791	0.207	1.00	Yes	0.506	0.125	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.60**
		L_3 - L_4			1281.35	-----	62	-382	-14	-1123	28	114	-204	218	0.810	0.184	1.00	Yes	0.526	0.113	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.84**
		L_4 - L_5			1759.23	-----	-269	-126	-1068	-791	28	14	88	-136	0.859	0.138	1.00	Yes	0.552	0.081	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.44**
		L_5 - L_6			1587.60	-----	-35	-311	-347	-1624	-62	137	-227	376	0.776	0.222	1.00	Yes	0.504	0.135	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.43**
		L_6 - L_7			1280.23	-----	-349	208	-1662	219	3	-33	-49	131	0.753	0.240	1.00	Yes	0.488	0.146	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.86**
		L_7 - L_8			1087.52	-----	-78	75	-548	-342	-30	52	337	329	0.858	0.137	1.00	Yes	0.549	0.083	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.86**
		L_8 - L_9			572.60	-183.41	-162	352	-855	332	60	-104	-144	-21	0.742	0.252	1.00	Yes	0.445	0.165	0.62	Yes	0.282	0.118	0.4	Yes	0.279	0.226	0.51	Yes	1.00	**7.05**
		L_9 - L_{10}			-----	-539.03	-22	495	-657	354	12	78	-40	3	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.080	0.91	Yes	0.821	0.174	1.00	Yes	1.00	**8.23**
		L_{10} - L_{11}			-----	-1076.75	118	26	-770	638	55	-274	72	-143	-----	-----	-----	-----	-----	-----	-----	-----	0.881	0.050	0.94	Yes	0.872	0.122	1.00	Yes	1.00	**12.51**
		L_{11} - L_{12}			-----	-1261.47	-33	1066	-185	1400	-153	-69	-95	-288	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.190	1	Yes	0.799	0.185	0.99	Yes	1.00	**7.05**
		L_{12} - L_{13}			-----	-1241.79	1431	-98	557	-34	-213	-203	-130	-138	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.197	1	Yes	0.786	0.190	0.98	Yes	1.00	**4.01**
		L_{13} - L_{14}			-----	-1171.51	272	-356	-95	195	-164	-86	-42	-146	-----	-----	-----	-----	-----	-----	-----	-----	0.954	0.038	1	Yes	0.943	0.056	1.00	Yes	1.00	**7.82**
		L_{14} - L_{15}			-----	-732.43	684	-61	210	-214	23	-24	-32	-141	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.133	0.99	Yes	0.845	0.151	1.00	Yes	1.00	**5.39**
		L_{15} - L_{16}			-----	-372.52	1212	-1604	253	-33	-143	-7	-28	46	-----	-----	-----	-----	-----	-----	-----	-----	0.573	0.204	0.78	Yes	0.568	0.425	1.00	Yes	1.00	**13.97**
		L_{16} - L_{17}			665.66	-264.32	370	37	-908	-342	55	-80	-11	4	0.766	0.232	1.00	Yes	0.455	0.151	0.61	Yes	0.361	0.235	0.6	Yes	0.358	0.219	0.58	Yes	1.00	**6.77**
		L_{17} - L_{18}			689.55	-125.75	117	-45	-614	-705	41	102	176	113	0.793	0.199	1.00	Yes	0.459	0.119	0.58	Yes	0.172	0.217	0.39	Yes	0.170	0.170	0.35	Yes	1.00	**7.02**
		L_{18} - L_{19}			453.33	-45.67	47	15	-846	65	52	-73	-120	240	0.694	0.305	1.00	Yes	0.423	0.205	0.63	Yes	0.083	0.183	0.27	Yes	0.082	0.254	0.34	Yes	1.00	**7.43**
		L_{19} - L_{20}			-----	-223.74	308	-357	-1980	1683	-236	-64	1343	365	-----	-----	-----	-----	-----	-----	-----	-----	0.406	0.567	0.98	Yes	0.403	0.594	1.00	Yes	1.00	**44.25**

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression											
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.299	1	Yes	0.657	0.255	0.92	Yes	1.00	**3.88**
Center Truss - Verticals	Structure 1	$U_0 - L_0$			-----	-310.30	-1	21	-150	200	-72	-23	-719	-231	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.299	1	Yes	0.657	0.255	0.92	Yes	1.00	**3.88**
		$U_1 - L_1$			74.12	-334.25	56	-52	-217	225	106	41	-117	-49	0.133	0.321	0.46	Yes	0.073	0.177	0.25	Yes	0.730	0.114	0.85	Yes	0.707	0.287	1.00	Yes	1.00	**7.25**
		$U_2 - L_2$			132.75	-308.90	121	-134	-213	264	-197	-72	62	101	0.239	0.394	0.64	Yes	0.131	0.217	0.35	Yes	0.675	0.161	0.84	Yes	0.654	0.337	1.00	Yes	1.00	**9.67**
		$U_3 - L_3$			218.87	-268.30	184	-216	-309	332	-236	-221	11	254	0.394	0.498	0.90	Yes	0.217	0.274	0.50	Yes	0.588	0.172	0.76	Yes	0.568	0.424	1.00	Yes	1.00	**13.21**
		$U_4 - L_4$			-----	-372.41	158	-161	54	-55	-98	-43	-161	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.097	0.92	Yes	0.788	0.206	1.00	Yes	1.00	**4.84**
		$U_5 - L_5$			-----	-422.74	247	-260	59	-66	-96	-31	-151	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.106	0.88	Yes	0.729	0.264	1.00	Yes	1.00	**3.87**
		$U_6 - L_6$			-----	-538.00	249	-257	72	-72	-27	72	-135	0	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.085	0.9	Yes	0.772	0.224	1.00	Yes	1.00	**4.59**
		$U_7 - L_7$			-----	-435.67	302	-328	119	-132	-1	99	-131	46	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.125	0.86	Yes	0.672	0.323	1.00	Yes	1.00	**3.06**
		$U_8 - L_8$			-----	-1197.11	352	-432	-289	342	628	148	-1100	-381	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.129	1	Yes	0.830	0.080	0.92	Yes	1.00	**7.26**
		$U_9 - L_9$			-----	-648.53	-176	203	-406	480	-245	-171	-107	-350	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.156	0.93	Yes	0.733	0.267	1.00	Yes	1.00	**4.31**
		$U_{10} - L_{10}$			-----	-819.56	-115	115	-360	349	-203	-146	-318	-256	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.114	0.97	Yes	0.809	0.187	1.00	Yes	1.00	**6.21**
		$U_{11} - L_{11}$			-----	-671.84	-118	161	-373	465	-140	-32	-157	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.092	0.9	Yes	0.782	0.216	1.00	Yes	1.00	**5.51**
		$U_{12} - L_{12}$			-----	-532.48	-103	102	-297	305	-125	5	-100	62	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.089	0.86	Yes	0.731	0.261	1.00	Yes	1.00	**4.96**
		$U_{13} - L_{13}$			-----	-367.71	-64	78	-237	256	-106	45	-81	107	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.101	0.85	Yes	0.704	0.292	1.00	Yes	1.00	**3.81**
		$U_{14} - L_{14}$			-----	-248.15	-34	40	-124	144	-1339	-225	-1598	-122	-----	-----	-----	-----	-----	-----	-----	-----	0.554	0.442	1	Yes	0.525	0.184	0.71	Yes	1.00	**5.48**
		$U_{15} - L_{15}$			54.43	-296.33	276	-285	-45	44	-95	-227	-156	-89	0.098	0.429	0.53	Yes	0.054	0.236	0.30	Yes	0.664	0.180	0.85	Yes	0.627	0.364	1.00	Yes	1.00	**7.76**
		$U_{16} - L_{16}$			1.40	-323.73	234	-246	10	-14	-95	-219	-166	-111	0.003	0.377	0.38	Yes	0.001	0.208	0.21	Yes	0.730	0.165	0.9	Yes	0.685	0.314	1.00	Yes	1.00	**6.45**
		$U_{17} - L_{17}$			-----	-439.45	219	-237	43	-55	42	-87	-170	-100	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.132	0.96	Yes	0.758	0.241	1.00	Yes	1.00	**4.56**
		$U_{18} - L_{18}$			-----	-536.99	425	-443	116	-121	61	-10	-159	-64	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.094	0.89	Yes	0.747	0.251	1.00	Yes	1.00	**5.36**
		$U_{19} - L_{19}$			-----	-652.62	484	-510	130	-143	363	148	-69	3	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.149	0.97	Yes	0.760	0.237	1.00	Yes	1.00	**6.06**
		$U_{20} - L_{20}$			-----	-602.92	407	-507	164	-209	551	72	18	2	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.203	1	Yes	0.702	0.235	0.94	Yes	1.00	**4.55**
	Structure 2	$U_0 - L_0$			-----	-647.46	-94	156	-401	520	-274	-46	-788	-134	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.216	1	Yes	0.694	0.220	0.92	Yes	1.00	**4.05**
		$U_1 - L_1$			-----	-703.05	-86	92	-468	506	59	-71	-864	-279	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.194	1	Yes	0.753	0.215	0.97	Yes	1.00	**5.51**
		$U_2 - L_2$			-----	-589.03	-49	58	-443	470	132	52	-693	-192	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.174	0.97	Yes	0.751	0.240	1.00	Yes	1.00	**5.64**
		$U_3 - L_3$			-----	-485.76	-24	30	-214	236	41	146	-506	-165	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.166	1	Yes	0.762	0.215	0.98	Yes	1.00	**5.23**
		$U_4 - L_4$			29.58	-340.90	17	-9	-204	212	-42	101	40	238	0.053	0.340	0.40	Yes	0.029	0.187	0.22	Yes	0.773	0.127	0.9	Yes	0.721	0.271	1.00	Yes	1.00	**6.01**
		$U_5 - L_5$			111.85	-337.68	80	-77	-191	219	-97	0	5	246	0.201	0.351	0.56	Yes	0.111	0.193	0.31	Yes	0.763	0.128	0.9	Yes	0.715	0.280	1.00	Yes	1.00	**8.26**
		$U_6 - L_6$			245.22	-290.45	155	-172	-289	299	-130	-78	56	340	0.441	0.481	0.93	Yes	0.243	0.264	0.51	Yes	0.654	0.169	0.83	Yes	0.615	0.382	1.00	Yes	1.00	**14.93**
		$U_7 - L_7$			-----	-229.77	318	-371	51	-58	-1242	-339	-128	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.519	0.478	1	Yes	0.486	0.474	0.97	Yes	1.00	**21.21**
		$U_8 - L_8$			-----	-458.84	371	-383	113	-125	-642	-478	-166	-113	-----	-----	-----	-----	-----	-----	-----	-----	0.665	0.224	0.89	Yes	0.661	0.335	1.00	Yes	1.00	**5.63**
		$U_9 - L_9$			-----	-696.29	565	-591	202	-207	-980	-730	-220	-118	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.208	0.99	Yes	0.746	0.251	1.00	Yes	1.00	**7.26**
		$U_{10} - L_{10}$			-----	-785.38	565	-589	184	-194	-44	-97	-162	-77	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.097	0.88	Yes	0.734	0.260	1.00	Yes	1.00	**6.30**
		$U_{11} - L_{11}$			-----	-845.25	435	-467	196	-196	-81	34	-122	-13	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.078	0.93	Yes	0.790	0.206	1.00	Yes	1.00	**4.45**
		$U_{12} - L_{12}$			-----	-893.89	517	-494	176	-153	49	120	-58	59	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.087	0.95	Yes	0.775	0.222	1.00	Yes	1.00	**4.68**
		$U_{13} - L_{13}$			-----	-737.62	600	-602	264	-273	-22	99	-131	-7	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.118	0.95	Yes	0.711	0.288	1.00	Yes	1.00	**4.25**
		$U_{14} - L_{14}$			-----	-1196.37	621	-594	-391	359	696	389	-826	-289	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.115	1	Yes	0.793	0.110	0.91	Yes	1.00	**7.87**
		$U_{15} - L_{15}$			-----	-702.80	-136	151	-655	656	-33	15	-183	-150	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.156	0.94	Yes	0.678	0.314	1.00	Yes	1.00	**5.66**
		$U_{16} - L_{16}$			-----	-735.52	-83	49	-490	450	-134	-53	-292	-207	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.116	0.97	Yes	0.788	0.208	1.00	Yes	1.00	**4.82**
		$U_{17} - L_{17}$			-----	-640.64	-138	125	-540	531	-85	-42	-160	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.092	0.89	Yes	0.746	0.250	1.00	Yes	1.00	**4.15**
		$U_{18} - L_{18}$			-----	-576.13	-130	116	-391	418	-77	-39	-1158	-186	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.228	1	Yes	0.734	0.214	0.95	Yes	1.00	**3.92**
		$U_{19} - L_{19}$			-----	-482.28	-85	77	-284	288	-90	-43	106	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.726	0.093	0.82	Yes	0.720	0.277	1.00	Yes	1.00	**5.78**
		$U_{20} - L_{20}$			-----	-384.87	-55	54	-208	222	-124	-96	-149	76	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.103	0.9	Yes	0.737	0.253	1.00	Yes	1.00	**5.58**
		$U_{21} - L_{21}$			-----	-317.00	-27	37	-246	257	-441	-44	-132	97	-----	-----	-----	-----	-----	-----	-----	-----	0.716	0.202	0.92	Yes	0.671	0.328	1.00	Yes	1.00	**5.88**
		$U_{22} - L_{22}$			-----	-225.32	173	-197	-124	146	-1471	-476	243	96	-----	-----	-----	-----	-----	-----	-----	-----	0.507	0.485	1	Yes	0.477	0.252	0.73	Yes	1.00	**21.62**
		$U_{23} - L_{23}$			-----	-306.60	262	-268	24	-25	-97	-149	-91	33	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.145	0.84	Yes	0.649	0.342	1.00	Yes	1.00	**6.23**
		$U_{24} - L_{24}$			-----	-379.35	225	-238	44	-46	-84	-133	-132	24	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.111	0.89	Yes	0.727	0.271	1.00	Yes	1.00	**5.95**
		$U_{25} - L_{25}$			-----	-471.82	307	-304	81	-78	80	-27	-122	32	-----	-----	-----	-----	-----	-----	-----	-----	0.710	0.088	0.8	Yes	0.705	0.295	1.00	Yes	1.00	**5.13**
		$U_{26} - L_{26}$			-----	-596.93	401	-450	135	-134	-65	12	-154	21	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.085	0.89	Yes	0.761	0.230	1.00	Yes	1.00	**3.89**
		$U_{27} - L_{27}$			-----	-628.97	567	-567	157	-156	-99	54	-148	42	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.082	0.86	Yes	0.732	0.263	1.00	Yes	1.00	**4.06**
		$U_{28} - L_{28}$			-----	-723.69	522	-498	128	-107	3	132	-121	38	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.075	0.92	Yes	0.776	0.221	1.00	Yes	1.00	**4.62**
		$U_{29} - L_{29}$			-----	-695.08	673	-671	222	-242	110	117	-196	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.142	0.92	Yes	0.670	0.322	1.00	Yes	1.00	**4.82**
		$U_{30} - L_{30}$			-----	-1190.89	426	-431	-459	404	560	204	-810	-377	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.128	1	Yes	0.790	0.081	0.88	Yes	1.00	**6.99**
		$U_{31} - L_{31}$			-----	-739.87	-187	189	-582	583	-113	-43	-194	-140	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.147	0.98	Yes	0.713	0.279	1.00	Yes	1.00	**4.70**
		$U_{32} - L_{32}$			-----	-900.10	-123	89	-482	445	-182	-107	-291	-194	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.131	1	Yes	0.780	0.207	0.99	Yes	1.00	**5.06**
		$U_{33} - L_{33}$			-----	-776.00	-162	158	-397	409	-103	-19	-1172	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.216	1	Yes	0.726	0.180	0.91	Yes	1.00	**4.56**
		$U_{34} - L_{34}$			-----	-813.71	-156	162	-504	521	-102	19	143	-157	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.079	0.89	Yes	0.761	0.230	1.00	Yes	1.00	**7.73**
		$U_{35} - L_{35}$			-----	-710.66	-180	186	-514	557	-105	35	48	293	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.084	0.88	Yes	0.762	0.236	1.00	Yes	1.00	**7.42**
		$U_{36} - L_{36}$			-----	-473.23	-103	116	-343	360	-103	47	-52	193	-----	-----	-----	-----	-----	-----	-----	-----	0.686	0.101	0.79	Yes	0.682	0.314	1.00	Yes	1.00	**5.78**
		$U_{37} - L_{37}$			-----	-285.60	-57	68	-114	135	-1222	-48	-150	-6	-----	-----	-----	-----	-----	-----	-----	-----	0.645	0.354	1	Yes	0.604	0.173	0.78	Yes	1.00	**5.53**
		$U_{38} - L_{38}$			220.71	-227.88	258	-259	-154	169	-941	-611	-117	-28	0.397	0.603	1.00	Yes	0.218	0.332	0.55	Yes	0.513	0.404	0.92	Yes	0.482	0.330	0.82	Yes	1.00	**11.78**
		$U_{39} - L_{39}$			127.22	-302.51	197	-219	-97	96	-642	-421	-150	-48	0.229	0.465	0.70	Yes	0.126	0.256	0.39	Yes	0.683	0.311	1	Yes	0.640	0.279	0.92	Yes	1.00	**7.68**
		$U_{40} - L_{40}$			34.17	-330.99	233	-233	-21	12	-57	-129	-129	-59	0.061	0.335	0.40	Yes	0.034	0.184	0.22	Yes	0.751	0.127	0.88	Yes	0.700	0.298	1.00	Yes	1.00	**5.17**
		$U_{41} - L_{41}$			-----	-488.25	236	-252	27	-34	-92	-112	-102	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.102	0.94	Yes	0.766	0.230	1.00	Yes	1.00	**4.90**
		$U_{42} - L_{42}$			-----	-581.33	492	-501	71	-81	-80	-23	-83	-55	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.080	0.86	Yes	0.741	0.256	1.00	Yes	1.00	**5.53**
		$U_{43} - L_{43}$			-----	-705.74	520	-553	107	-124	459	242	-58	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.145	0.96	Yes	0.756	0.235	1.00	Yes	1.00	**5.89**
		$U_{44} - L_{44}$			-----	-663.05	442	-567	179	-218	664	113	-60	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.201	1	Yes	0.711	0.241	0.96	Yes	1.00	**4.38**
	Structure 3	$U_0 - L_0$			-----	-578.95	-98	161	-366	459	-244	-32	-732	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.229	1	Yes	0.674	0.213	0.89	Yes	1.00	**4.53**
		$U_1 - L_1$			-----	-634.16	-104	111	-419	455	8	-74	-785	-209	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.205	1	Yes	0.738	0.211	0.95	Yes	1.00	**6.10**
		$U_2 - L_2$			-----	-544.12	-81	86	-389	419	93	37	-719	-181	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.188	0.99	Yes	0.757	0.237	1.00	Yes	1.00	**6.31**
		$U_3 - L_3$			-----	-448.89	-28	39	-192	215	6	124	-44	173	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.110	0.95	Yes	0.774	0.218	1.00	Yes	1.00	**5.54**
		$U_4 - L_4$			0.31	-331.68	-8	12	-216	230	-97	62	-155	189	0.001	0.348	0.35	Yes	0.000	0.191	0.20	Yes	0.747	0.102	0.85	Yes	0.702	0.293	1.00	Yes	1.00	**6.53**
		$U_5 - L_5$			49.07	-301.85	35	-32	-262	275	-115	23	-162	171	0.088	0.402	0.49	Yes	0.049	0.221	0.27	Yes	0.677	0.128	0.81	Yes	0.639	0.352	1.00	Yes	1.00	**7.68**
		$U_6 - L_6$			-----	-264.37	130	-143	34	-37	-1385	-231	-149	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.590	0.404	1	Yes	0.559	0.183	0.75	Yes	1.00	**5.86**
		$U_7 - L_7$			-----	-359.32	256	-272	61	-73	-187	-173	-163	-111	-----	-----	-----	-----	-----	-----	-----	-----	0.726	0.148	0.88	Yes	0.688	0.310	1.00	Yes	1.00	**3.98**
		$U_8 - L_8$			-----	-521.29	321	-327	103	-100	-218	-182	-196	-126	-----	-----	-----	-----	-----	-----	-----	-----	0.753	0.124	0.88	Yes	0.715	0.280	1.00	Yes	1.00	**5.08**
		$U_9 - L_9$			-----	-652.29	412	-503	123	-164	57	17	-154	-70	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.098	0.89	Yes	0.759	0.233	1.00	Yes	1.00	**5.10**
		$U_{10} - L_{10}$			-----	-801.96	383	-393	120	-125	134	178	-88	12	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.078	0.91	Yes	0.791	0.204	1.00	Yes	1.00	**5.78**
		$U_{11} - L_{11}$			-----	-630.36	424	-500	186	-216	-72	293	-39	68	-----	-----	-----	-----	-----	-----	-----	-----	0.752	0.123	0.88	Yes	0.712	0.278	1.00	Yes	1.00	**3.87**
		$U_{12} - L_{12}$			-----	-1219.48	360	-487	-262	269	833	319	-899	-207	-----	-----	-----	-----	-----	-----	-----	-----	0.880	0.110	1	Yes	0.845	0.091	0.94	Yes	1.00	**7.53**
		$U_{13} - L_{13}$			-----	-447.03	-106	117	-285	309	-140	-95	-162	-137	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.147	0.9	Yes	0.690	0.304	1.00	Yes	1.00	**3.75**
		$U_{14} - L_{14}$			-----	-552.06	-63	59	-235	234	-163	-132	-275	-211	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.128	0.97	Yes	0.792	0.206	1.00	Yes	1.00	**4.83**
		$U_{15} - L_{15}$			-----	-433.44	-51	56	-232	242	-141	-63	-199	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.114	0.9	Yes	0.748	0.246	1.00	Yes	1.00	**4.06**
		$U_{16} - L_{16}$			-----	-246.11	-52	52	-168	175	-162	-85	-1529	-443	-----	-----	-----	-----	-----	-----	-----	-----	0.541	0.454	1	Yes	0.521	0.224	0.75	Yes	1.00	**4.88**
		$U_{17} - L_{17}$			215.09	-266.18	324	-337	-205	234	-283	-320	-117	88	0.387	0.523	0.91	Yes	0.213	0.288	0.51	Yes	0.583	0.203	0.79	Yes	0.563	0.430	1.00	Yes	1.00	**13.15**
		$U_{18} - L_{18}$			136.19	-298.92	237	-281	-133	146	-281	-182	-109	-41	0.245	0.440	0.69	Yes	0.135	0.242	0.38	Yes	0.653	0.175	0.83	Yes	0.632	0.359	1.00	Yes	1.00	**9.55**
		$U_{19} - L_{19}$			44.51	-320.81	244	-246	-55	41	147	52	-169	-94	0.080	0.363	0.45	Yes	0.044	0.200	0.25	Yes	0.701	0.133	0.84	Yes	0.679	0.314	1.00	Yes	1.00	**5.72**
		$U_{20} - L_{20}$			-----	-332.98	162	-229	37	-37	343	110	-224	-72	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.205	0.95	Yes	0.705	0.293	1.00	Yes	1.00	**3.74**

Moment (Start) AI Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass				
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
Center Truss - Diagonals	Structure 1	$U_0 - L_1$	574.16	-111.61	20	-18	-116	66	-40	-3	-416	-198	0.753	0.240	1.00	Yes	0.455	0.132	0.59	Yes	0.191	0.177	0.37	Yes	0.172	0.135	0.31	Yes	1.00	**7.98**
		$U_1 - L_2$	429.35	-149.42	30	-23	-100	26	-89	-36	-320	-222	0.772	0.220	1.00	Yes	0.425	0.121	0.55	Yes	0.343	0.204	0.55	Yes	0.316	0.128	0.45	Yes	1.00	**8.49**
		$U_2 - L_3$	392.06	-271.09	59	-26	-113	17	146	109	-383	-491	0.705	0.286	1.00	Yes	0.388	0.158	0.55	Yes	0.624	0.323	0.95	Yes	0.574	0.144	0.72	Yes	1.00	**11.23**
		$U_3 - L_4$	57.45	-307.14	54	-11	-85	-119	96	255	-459	-384	0.103	0.285	0.39	Yes	0.057	0.157	0.22	Yes	0.702	0.289	1	Yes	0.650	0.152	0.81	Yes	1.00	**9.53**
		$U_4 - L_4$	551.85	-----	-5	61	-108	0	308	225	-93	-155	0.809	0.181	1.00	Yes	0.445	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.20**
		$U_6 - L_5$	558.63	-----	-17	157	-207	194	492	384	-1187	-112	0.660	0.333	1.00	Yes	0.363	0.183	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.41**
		$U_7 - L_6$	650.98	-----	-78	85	-282	262	297	170	371	-26	0.770	0.228	1.00	Yes	0.423	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		$U_8 - L_7$	614.84	-----	21	179	-94	301	526	264	79	152	0.727	0.267	1.00	Yes	0.400	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.84**
		$U_9 - L_9$	927.47	-----	79	228	-81	371	655	327	245	366	0.741	0.249	1.00	Yes	0.459	0.140	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.66**
		$U_9 - L_{10}$	1013.93	-----	-75	124	-319	263	112	138	169	317	0.811	0.183	1.00	Yes	0.502	0.102	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.37**
		$U_{10} - L_{11}$	1016.09	-----	-36	145	-277	191	33	30	-69	-11	0.858	0.137	1.00	Yes	0.531	0.076	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.75**
		$U_{11} - L_{12}$	815.78	-----	-60	81	-274	114	-101	-72	-406	-411	0.807	0.189	1.00	Yes	0.444	0.104	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.88**
		$U_{12} - L_{13}$	622.84	-----	-72	51	-192	167	-229	-195	-357	-330	0.759	0.238	1.00	Yes	0.478	0.134	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.74**
		$U_{13} - L_{14}$	426.87	-----	-27	10	-104	25	-210	-207	-307	-330	0.768	0.228	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.29**
		$U_{15} - L_{14}$	343.55	-166.93	31	-47	-159	-63	-3	-71	-593	-584	0.618	0.375	1.00	Yes	0.340	0.206	0.55	Yes	0.391	0.412	0.81	Yes	0.353	0.203	0.56	Yes	1.00	**11.58**
		$U_{16} - L_{15}$	400.41	-36.94	-5	-11	-134	92	-42	-82	-352	-351	0.720	0.273	1.00	Yes	0.396	0.150	0.55	Yes	0.088	0.188	0.28	Yes	0.078	0.171	0.25	Yes	1.00	**6.95**
		$U_{17} - L_{16}$	492.72	-----	-25	6	-145	84	-23	-94	-175	-554	0.723	0.276	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.71**
		$U_{18} - L_{17}$	638.07	-----	-94	56	-340	262	4	-43	-256	-225	0.754	0.239	1.00	Yes	0.415	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.69**
		$U_{19} - L_{18}$	699.90	-----	-100	64	-353	260	38	0	-371	-142	0.758	0.241	1.00	Yes	0.417	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.97**
		$U_{20} - L_{19}$	680.41	-----	-126	104	-363	311	-1	28	-457	-80	0.737	0.261	1.00	Yes	0.405	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.69**
	Structure 2	$U_0 - L_1$	755.20	-----	-46	56	-381	363	-126	61	-494	-161	0.747	0.250	1.00	Yes	0.411	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.50**
		$U_1 - L_2$	738.62	-----	-66	41	-371	286	60	20	-630	-256	0.731	0.266	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.56**
		$U_2 - L_3$	607.53	-----	-38	27	-336	255	-63	-186	-468	-182	0.718	0.275	1.00	Yes	0.395	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.53**
		$U_3 - L_4$	557.51	-----	-12	-1	-182	119	-237	-222	-433	-200	0.743	0.257	1.00	Yes	0.409	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.79**
		$U_4 - L_5$	392.24	-77.04	21	-24	-132	88	-210	-149	-429	-398	0.705	0.293	1.00	Yes	0.388	0.161	0.55	Yes	0.190	0.226	0.42	Yes	0.163	0.169	0.34	Yes	1.00	**6.81**
		$U_5 - L_6$	364.87	-197.74	61	-59	-129	63	-101	-20	-610	-462	0.656	0.341	1.00	Yes	0.361	0.188	0.55	Yes	0.467	0.351	0.82	Yes	0.418	0.165	0.59	Yes	1.00	**9.67**
		$U_6 - L_7$	50.21	-275.18	55	-59	-85	-43	-80	15	-360	-963	0.082	0.347	0.43	Yes	0.045	0.191	0.24	Yes	0.589	0.402	1	Yes	0.527	0.096	0.63	Yes	1.00	**8.81**
		$U_8 - L_7$	584.77	-----	-58	47	-218	108	-26	-113	-287	-265	0.746	0.253	1.00	Yes	0.469	0.143	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.43**
		$U_8 - L_8$	692.20	-----	-118	142	-335	235	243	116	-282	-431	0.750	0.242	1.00	Yes	0.412	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.50**
		$U_{10} - L_9$	772.78	-----	-92	138	-322	198	285	189	-34	-560	0.765	0.233	1.00	Yes	0.420	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.89**
		$U_{11} - L_{10}$	854.03	-----	-100	164	-355	290	460	316	-28	-75	0.778	0.214	1.00	Yes	0.428	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.18**
		$U_{12} - L_{11}$	879.57	-----	-121	174	-348	351	313	203	256	162	0.801	0.192	1.00	Yes	0.441	0.106	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.04**
		$U_{13} - L_{12}$	750.22	-----	-180	174	-426	389	350	182	347	202	0.742	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.66**
		$U_{14} - L_{13}$	729.64	-----	-19	192	-266	425	510	166	2	135	0.722	0.273	1.00	Yes	0.397	0.150	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.29**
		$U_{14} - L_{15}$	629.26	-----	60	73	-209	377	26	-25	99	181	0.744	0.247	1.00	Yes	0.409	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.29**
		$U_{15} - L_{16}$	632.40	-----	-67	72	-379	353	8	34	195	173	0.748	0.250	1.00	Yes	0.411	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.60**
		$U_{16} - L_{17}$	723.42	-----	-53	105	-323	381	-6	14	98	77	0.784	0.211	1.00	Yes	0.431	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.39**
		$U_{17} - L_{18}$	690.18	-----	-53	104	-309	305	-27	6	-1	-5	0.816	0.180	1.00	Yes	0.449	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.28**
		$U_{18} - L_{19}$	566.32	-----	-28	102	-268	270	-18	6	-968	-67	0.670	0.328	1.00	Yes	0.368	0.181	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.47**
		$U_{19} - L_{20}$	574.57	-----	-15	68	-210	181	-1	57	-342	-305	0.733	0.258	1.00	Yes	0.403	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.77**
		$U_{20} - L_{21}$	419.29	-----	-16	35	-120	106	19	31	-319	-262	0.754	0.245	1.00	Yes	0.415	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.45**
		$U_{21} - L_{22}$	370.28	-----	0	24	-149	6	35	135	-465	-417	0.666	0.325	1.00	Yes	0.366	0.179	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.34**
		$U_{23} - L_{22}$	374.71	-7.84	11	15	-160	5	255	243	-314	-393	0.674	0.318	1.00	Yes	0.371	0.175	0.55	Yes	0.019	0.223	0.25	Yes	0.017	0.204	0.23	Yes	1.00	**9.16**
		$U_{24} - L_{23}$	428.63	-----	-8	26	-123	104	229	142	-168	-204	0.771	0.223	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.96**
		$U_{25} - L_{24}$	552.18	-----	-14	57	-201	147	251	163	-47	-565	0.704	0.295	1.00	Yes	0.387	0.168	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.82**
		$U_{26} - L_{25}$	657.08	-----	-29	102	-288	262	286	196	-12	-90	0.777	0.215	1.00	Yes	0.427	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.89**
		$U_{27} - L_{26}$	657.84	-----	-64	108	-291	285	264	159	230	101	0.778	0.213	1.00	Yes	0.428	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.86**
		$U_{28} - L_{27}$	700.12	-----	-79	125	-316	370	262	179	272	177	0.758	0.234	1.00	Yes	0.417	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.01**
		$U_{29} - L_{28}$	616.69	-----	-116	114	-362	332	303	143	334	-83	0.729	0.265	1.00	Yes	0.401	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.61**
		$U_{30} - L_{29}$	604.44	-----	22	132	-196	348	460	111	7	146	0.715	0.281	1.00	Yes	0.393	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.86**
		$U_{30} - L_{31}$	765.93	-----	24	127	-285	470	126	32	15	143	0.758	0.240	1.00	Yes	0.417	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.13**
		$U_{31} - L_{32}$	771.43	-----	-122	124	-450	404	53	61	180	145	0.763	0.235	1.00	Yes	0.420	0.130	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.52**
		$U_{32} - L_{33}$	914.72	-----	-81	141	-358	363	9	28	28	32	0.833	0.158	1.00	Yes	0.458	0.087	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		$U_{33} - L_{34}$	872.37	-----	-66	149	-363	268	6	38	-343	-176	0.795	0.201	1.00	Yes	0.437	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.47**
		$U_{34} - L_{35}$	772.78	-----	-70	144	-335	203	-5	19	-429	-472	0.765	0.226	1.00	Yes	0.420	0.124	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.79**
		$U_{35} - L_{36}$	678.24	-----	-114	144	-333	235	-61	-15	-547	-442	0.735	0.260	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.92**
		$U_{36} - L_{37}$	520.09	-----	-59	55	-190	105	-215	-206	-332	-788	0.663	0.331	1.00	Yes	0.417	0.190	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.44**
		$U_{38} - L_{37}$	140.11	-356.55	79	-69	-131	-35	100	102	-378	-330	0.228	0.248	0.48	Yes	0.125	0.136	0.27	Yes	0.770	0.222	1	Yes	0.683	0.149	0.84	Yes	1.00	**12.02**
		$U_{39} - L_{38}$	386.90	-224.27	68	-65	-125	63	77	7	-254	-476	0.696	0.298	1.00	Yes	0.383	0.164	0.55	Yes	0.534	0.230	0.77	Yes	0.475	0.160	0.64	Yes	1.00	**9.19**
		$U_{40} - L_{39}$	367.51	-84.50	19	-27	-126	69	28	-13	-50	-595	0.661	0.334	1.00	Yes	0.364	0.183	0.55	Yes	0.202	0.221	0.43	Yes	0.179	0.161	0.35	Yes	1.00	**5.49**
		$U_{41} - L_{40}$	585.52	-----	-13	-5	-190	140	27	-5	-170	-187	0.781	0.213	1.00	Yes	0.429	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.40**
		$U_{42} - L_{41}$	650.25	-----	-51	30	-349	270	-5	2	-168	-141	0.769	0.228	1.00	Yes	0.423	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.57**
		$U_{43} - L_{42}$	777.64	-----	-71	44	-391	312	-18	-44	-327	-88	0.769	0.230	1.00	Yes	0.423	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.10**
		$U_{44} - L_{43}$	767.97	-----	-124	105	-375	366	34	-10	-401	-19	0.760	0.234	1.00	Yes	0.418	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.78**
	Structure 3	$U_0 - L_1$	657.18	-----	-64	67	-371	310	-137	43	-570	-184	0.712	0.283	1.00	Yes	0.391	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.91**
		$U_1 - L_2$	662.43	-----	-85	52	-331	234	35	10	-687	-274	0.717	0.282	1.00	Yes	0.395	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.14**
		$U_2 - L_3$	589.16	-----	-68	40	-337	242	-75	-172	-571	-259	0.697	0.294	1.00	Yes	0.383	0.162	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.59**
		$U_3 - L_4$	505.81	-----	-15	3	-151	103	-217	-204	-417	-397	0.742	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.02**
		$U_4 - L_5$	381.64	-19.92	-6	-6	-126	91	-227	-160	-507	-401	0.686	0.309	1.00	Yes	0.378	0.170	0.55	Yes	0.047	0.224	0.28	Yes	0.042	0.162	0.21	Yes	1.00	**6.59**
		$U_5 - L_6$	326.83	-145.75	27	-45	-148	-66	-169	-98	-747	-604	0.588	0.406	1.00	Yes	0.323	0.223	0.55	Yes	0.341	0.469	0.82	Yes	0.308	0.190	0.50	Yes	1.00	**10.91**
		$U_7 - L_6$	435.66	-----	-23	6	-105	23	-27	-144	-130	-273	0.784	0.213	1.00	Yes	0.431	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.62**
		$U_8 - L_7$	639.89	-----	-66	62	-195	171	71	-15	-163	-229	0.780	0.215	1.00	Yes	0.491	0.121	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.01**
		$U_8 - L_8$	787.61	-----	-57	67	-278	83	246	130	-118	-585	0.779	0.217	1.00	Yes	0.429	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.88**
		$U_{10} - L_9$	982.74	-----	-47	124	-250	190	392	306	28	-76	0.830	0.167	1.00	Yes	0.514	0.094	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.80**
		$U_{11} - L_{10}$	968.47	-----	-95	133	-306	250	491	306	370	648	0.774	0.219	1.00	Yes	0.480	0.124	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.04**
		$U_{12} - L_{11}$	936.65	-----	55	216	-82	368	680	332	151	307	0.749	0.251	1.00	Yes	0.464	0.142	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.26**
		$U_{12} - L_{13}$	613.94	-----	40	197	-96	301	566	258	101	175	0.726	0.274	1.00	Yes	0.399	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.21**
		$U_{13} - L_{14}$	663.75	-----	-62	115	-284	291	152	197	236	212	0.785	0.209	1.00	Yes	0.432	0.115	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.49**
		$U_{14} - L_{15}$	696.89	-----	-15	148	-189	233	198	194	-183	-213	0.824	0.172	1.00	Yes	0.453	0.094	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.33**
		$U_{15} - L_{16}$	557.07	-----	-6	67	-111	-2	136	172	-270	-217	0.817	0.175	1.00	Yes	0.449	0.096	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.53**
		$U_{17} - L_{16}$	75.23	-326.80	58	-5	-95	-117	266	289	-311	-361	0.135	0.254	0.39	Yes	0.074	0.140	0.22	Yes	0.747	0.243	1	Yes	0.691	0.150	0.85	Yes	1.00	**10.28**
		$U_{18} - L_{17}$	24.37	-222.69	41	-27	-86	-24	96	156	-1320	-188	0.044	0.493	0.54	Yes	0.024	0.271	0.30	Yes	0.513	0.481	1	Yes	0.471	0.110	0.59	Yes	1.00	**7.76**
		$U_{19} - L_{18}$	414.18	-118.24	27	-21	-89	0	38	-1	-232	-459	0.745	0.246	1.00	Yes	0.410	0.135	0.55	Yes	0.271	0.208	0.48	Yes	0.250	0.113	0.37	Yes	1.00	**6.34**
		$U_{20} - L_{19}$	614.78	-69.54	-20	-1	-78	63	31	-18	-377	-195	0.807	0.186	1.00	Yes	0.487	0.103	0.59	Yes	0.119	0.141	0.26	Yes	0.107	0.091	0.20	Yes	1.00	**6.65**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Upper Chord	Structure 1	U_0 - U_1			-----	-575.24	865	-909	-597	-16	671	-845	-123	121	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.122	0.91	Yes	0.776	0.216	1.00	Yes	1.00	**10.75**
		U_1 - U_2			59.69	-509.77	-95	134	-322	-703	-165	159	-81	-507	0.068	0.253	0.33	Yes	0.047	0.173	0.22	Yes	0.694	0.299	1	Yes	0.687	0.167	0.86	Yes	1.00	**4.75**
		U_2 - U_3			282.94	-580.36	-48	408	-759	-197	-126	188	563	-611	0.324	0.284	0.61	Yes	0.219	0.187	0.41	Yes	0.790	0.205	1	Yes	0.783	0.180	0.97	Yes	1.00	**6.45**
		U_3 - U_4			554.81	-597.67	183	460	-552	-306	-243	-16	-247	-404	0.636	0.199	0.84	Yes	0.436	0.136	0.58	Yes	0.813	0.186	1	Yes	0.806	0.131	0.94	Yes	1.00	**7.36**
		U_4 - U_5			546.84	-573.45	233	438	-637	-175	-117	-19	-376	-171	0.627	0.215	0.85	Yes	0.430	0.147	0.58	Yes	0.780	0.214	1	Yes	0.773	0.151	0.93	Yes	1.00	**7.18**
		U_5 - U_6			726.20	-153.02	308	521	-471	331	93	136	-151	-210	0.832	0.159	1.00	Yes	0.561	0.104	0.67	Yes	0.208	0.153	0.37	Yes	0.206	0.124	0.34	Yes	1.00	**6.85**
		U_6 - U_7			892.82	-----	435	210	-81	73	298	355	-166	-5	0.854	0.141	1.00	Yes	0.597	0.097	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.29**
		U_7 - U_8			961.96	-----	150	888	-476	1555	869	800	265	490	0.667	0.324	1.00	Yes	0.465	0.222	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.86**
		U_8 - U_9			803.20	-----	1592	-568	803	-262	588	50	280	572	0.658	0.339	1.00	Yes	0.450	0.231	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.01**
		U_9 - U_{10}			643.06	-----	837	-798	93	-18	708	-500	61	143	0.698	0.301	1.00	Yes	0.472	0.202	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**19.52**
		U_{10} - U_{11}			-----	-568.80	484	-1031	116	-481	310	-777	348	293	-----	-----	-----	-----	-----	-----	-----	-----	0.732	0.267	1	Yes	0.726	0.231	0.96	Yes	1.00	**10.24**
		U_{11} - U_{12}			-----	-919.23	140	-216	-17	-808	12	93	81	-233	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.127	1	Yes	0.862	0.134	1.00	Yes	1.00	**3.53**
		U_{12} - U_{13}			-----	-1277.57	-57	-271	-502	-603	75	4	741	-467	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.136	1	Yes	0.853	0.083	0.94	Yes	1.00	**4.27**
		U_{13} - U_{14}			-----	-1434.15	-195	-502	-549	-1104	-47	-13	-52	-277	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.163	1	Yes	0.822	0.122	0.95	Yes	1.00	**4.34**
		U_{14} - U_{15}			-----	-1431.09	-403	-291	-1061	-671	36	-276	-172	-276	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.165	1	Yes	0.820	0.117	0.94	Yes	1.00	**4.33**
		U_{15} - U_{16}			-----	-1474.61	-198	-465	-734	-771	-109	-417	-316	-280	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.141	1	Yes	0.845	0.085	0.94	Yes	1.00	**4.91**
		U_{16} - U_{17}			-----	-1455.21	-375	-196	-1025	-426	-48	-242	-192	-204	-----	-----	-----	-----	-----	-----	-----	-----	0.843	0.152	1	Yes	0.834	0.113	0.95	Yes	1.00	**5.98**
		U_{17} - U_{18}			-----	-1057.28	-265	-53	-658	10	-122	73	-133	-17	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.157	1	Yes	0.827	0.107	0.94	Yes	1.00	**4.06**
		U_{18} - U_{19}			-----	-704.18	-254	19	-652	118	370	-143	196	-243	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.195	1	Yes	0.792	0.131	0.93	Yes	1.00	**4.08**
		U_{19} - U_{20}			-----	-601.74	-205	-81	-1059	-216	-55	-116	-133	-45	-----	-----	-----	-----	-----	-----	-----	-----	0.683	0.310	1	Yes	0.677	0.213	0.90	Yes	1.00	**11.01**
	Structure 2	U_0 - U_1			-----	-545.35	2083	-1768	-734	-424	1285	-514	-434	701	-----	-----	-----	-----	-----	-----	-----	-----	0.648	0.244	0.9	Yes	0.644	0.354	1.00	Yes	1.00	**10.23**
		U_1 - U_2			-----	-795.10	-45	-580	-279	-872	283	630	248	-311	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.218	1	Yes	0.767	0.132	0.90	Yes	1.00	**7.01**
		U_2 - U_3			-----	-1210.78	-78	-716	-263	-880	-240	-356	281	-609	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.134	1	Yes	0.859	0.090	0.95	Yes	1.00	**8.42**
		U_3 - U_4			-----	-1429.89	-517	-500	-895	-1286	-122	-26	-9	-344	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.176	1	Yes	0.814	0.115	0.93	Yes	1.00	**3.90**
		U_4 - U_5			-----	-1562.10	-565	-510	-1108	-1389	-130	-71	11	-621	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.189	1	Yes	0.802	0.115	0.92	Yes	1.00	**3.84**
		U_5 - U_6			-----	-1621.24	-545	54	-1267	-843	-198	-38	-221	-443	-----	-----	-----	-----	-----	-----	-----	-----	0.839	0.158	1	Yes	0.832	0.105	0.94	Yes	1.00	**3.88**
		U_6 - U_7			-----	-1403.25	-299	-196	-1074	-1229	-170	-88	-188	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.188	1	Yes	0.799	0.110	0.91	Yes	1.00	**3.51**
		U_7 - U_8			-----	-1406.05	-334	-181	-1390	-868	-79	-174	-262	-379	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.189	1	Yes	0.801	0.124	0.93	Yes	1.00	**3.54**
		U_8 - U_9			-----	-1230.34	-323	243	-1215	-312	-15	-193	-251	-309	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.153	1	Yes	0.834	0.129	0.97	Yes	1.00	**4.13**
		U_9 - U_{10}			350.38	-947.29	-42	580	-1236	-26	-131	-245	-482	-486	0.257	0.203	0.47	Yes	0.174	0.137	0.32	Yes	0.822	0.168	1	Yes	0.817	0.150	0.97	Yes	1.00	**5.26**
		U_{10} - U_{11}			878.47	-625.50	395	647	-1109	-43	-216	-112	-821	-357	0.742	0.257	1.00	Yes	0.505	0.169	0.68	Yes	0.625	0.214	0.84	Yes	0.622	0.156	0.78	Yes	1.00	**7.38**
		U_{11} - U_{12}			972.33	-----	241	677	-864	507	22	29	-426	-438	0.821	0.175	1.00	Yes	0.552	0.117	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.99**
		U_{12} - U_{13}			1293.79	-----	505	53	-321	-111	311	514	-602	-54	0.874	0.121	1.00	Yes	0.623	0.084	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.78**
		U_{13} - U_{14}			1213.36	-----	-11	1832	-1188	3498	842	1028	209	726	0.597	0.394	1.00	Yes	0.422	0.259	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.06**
		U_{14} - U_{15}			1292.88	-----	3239	-424	1847	-226	803	444	561	694	0.636	0.355	1.00	Yes	0.450	0.233	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.47**
		U_{15} - U_{16}			1466.18	-----	127	-184	-107	-601	458	389	517	-214	0.886	0.112	1.00	Yes	0.631	0.076	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.57**
		U_{16} - U_{17}			1071.52	-----	998	-343	346	-127	414	-397	339	730	0.790	0.202	1.00	Yes	0.525	0.133	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.41**
		U_{17} - U_{18}			715.00	-----	1074	-696	132	-167	336	-227	357	640	0.718	0.276	1.00	Yes	0.478	0.183	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**14.84**
		U_{18} - U_{19}			832.77	-419.57	584	349	72	-582	-64	193	227	-428	0.836	0.162	1.00	Yes	0.548	0.104	0.66	Yes	0.499	0.126	0.63	Yes	0.496	0.099	0.60	Yes	1.00	**7.63**
		U_{19} - U_{20}			396.16	-723.88	274	174	-212	-929	-108	127	-51	-385	0.372	0.201	0.58	Yes	0.246	0.132	0.38	Yes	0.804	0.188	1	Yes	0.799	0.149	0.95	Yes	1.00	**4.59**
		U_{20} - U_{21}			350.43	-897.05	157	81	-766	-515	-69	48	583	-510	0.272	0.175	0.45	Yes	0.190	0.115	0.31	Yes	0.825	0.172	1	Yes	0.819	0.111	0.93	Yes	1.00	**4.99**
		U_{21} - U_{22}			300.90	-879.39	27	83	-580	-803	-191	-54	-92	-249	0.233	0.143	0.38	Yes	0.165	0.096	0.27	Yes	0.808	0.184	1	Yes	0.803	0.116	0.92	Yes	1.00	**4.82**
		U_{22} - U_{23}			297.60	-873.45	89	19	-878	-646	-92	-139	-195	-186	0.231	0.148	0.38	Yes	0.164	0.099	0.27	Yes	0.803	0.196	1	Yes	0.797	0.127	0.93	Yes	1.00	**4.79**
		U_{23} - U_{24}			448.09	-891.72	145	206	-873	-301	10	-46	-360	-153	0.348	0.166	0.52	Yes	0.243	0.108	0.36	Yes	0.820	0.179	1	Yes	0.814	0.126	0.95	Yes	1.00	**6.09**
		U_{24} - U_{25}			739.20	-665.26	390	434	-1146	102	24	-31	-745	-327	0.693	0.284	0.98	Yes	0.459	0.186	0.65	Yes	0.739	0.253	1	Yes	0.734	0.183	0.92	Yes	1.00	**8.45**
		U_{25} - U_{26}			801.33	-365.96	359	548	-757	445	30	-9	-438	-276	0.804	0.193	1.00	Yes	0.528	0.123	0.66	Yes	0.435	0.172	0.61	Yes	0.432	0.128	0.57	Yes	1.00	**8.14**
		U_{26} - U_{27}			817.08	-----	377	409	-559	481	15	56	-560	-179	0.820	0.177	1.00	Yes	0.546	0.117	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.74**
		U_{27} - U_{28}			1124.25	-----	331	598	-620	973	348	402	-422	-304	0.828	0.167	1.00	Yes	0.551	0.110	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.31**
		U_{28} - U_{29}			1141.79	-----	1361	367	-796	-300	1033	1755	-924	-1033	0.690	0.303	1.00	Yes	0.491	0.208	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**17.22**
		U_{29} - U_{30}			1299.94	-----	-3	1708	-324	3093	816	1037	529	1059	0.639	0.359	1.00	Yes	0.453	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.35**
		U_{30} - U_{31}			1264.45	-----	3421	-943	1912	-528	772	98	877	852	0.622	0.377	1.00	Yes	0.440	0.247	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.91**
		U_{31} - U_{32}			1256.65	-----	85	383	-342	29	197	384	988	9	0.849	0.142	1.00	Yes	0.605	0.100	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.85**
		U_{32} - U_{33}			898.80	-178.56	1001	-376	143	-589	335	-516	342	738	0.759	0.231	1.00	Yes	0.510	0.154	0.67	Yes	0.179	0.164	0.35	Yes	0.177	0.141	0.32	Yes	1.00	**9.17**
		U_{33} - U_{34}			967.48	-730.62	666	381	-225	-939	-28	285	317	406	0.817	0.182	1.00	Yes	0.556	0.119	0.68	Yes	0.730	0.100	0.84	Yes	0.726	0.132	0.86	Yes	1.00	**9.06**
		U_{34} - U_{35}			272.17	-1004.53	504	-93	-162	-1012	46	76	344	-518	0.200	0.179	0.38	Yes	0.135	0.121	0.26	Yes	0.872	0.121	1	Yes	0.867	0.123	1.00	Yes	1.00	**5.58**
		U_{35} - U_{36}			-----	-1263.07	113	-452	-320	-1089	-15	93	78	-215	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.130	1	Yes	0.857	0.116	0.98	Yes	1.00	**3.48**
		U_{36} - U_{37}			-----	-1439.70	-284	-308	-876	-1286	-18	-118	11	-256	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.168	1	Yes	0.820	0.115	0.94	Yes	1.00	**3.20**
		U_{37} - U_{38}			-----	-1426.98	-196	-420	-1182	-1064	-94	-194	-171	-340	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.178	1	Yes	0.813	0.105	0.92	Yes	1.00	**3.14**
		U_{38} - U_{39}			-----	-1641.54	-125	-615	-940	-1213	14	-200	-228	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.148	1	Yes	0.843	0.101	0.95	Yes	1.00	**3.70**
		U_{39} - U_{40}			-----	-1584.99	-579	-559	-1414	-928	23	-62	-286	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.172	1	Yes	0.814	0.117	0.94	Yes	1.00	**3.88**
		U_{40} - U_{41}			-----	-1469.95	-492	-481	-1175	-824	107	-148	-110	-191	-----	-----	-----	-----	-----	-----	-----	-----	0.843	0.154	1	Yes	0.837	0.105	0.95	Yes	1.00	**4.28**
		U_{41} - U_{42}			-----	-1220.05	-397	-137	-1131	-33	71	-23	-186	-147	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.122	1	Yes	0.866	0.115	0.99	Yes	1.00	**5.13**
		U_{42} - U_{43}			-----	-887.12	-255	-28	-904	71	192	-195	-180	-233	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.130	1	Yes	0.856	0.137	1.00	Yes	1.00	**6.11**
		U_{43} - U_{44}			-----	-652.91	-118	-267	-1329	7	-128	-128	-112	109	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.216	1	Yes	0.771	0.226	1.00	Yes	1.00	**12.80**
	Structure 3	U_0 - U_1			-----	-541.96	1918	-1486	-522	-515	1354	-860	-389	732	-----	-----	-----	-----	-----	-----	-----	-----	0.615	0.291	0.91	Yes	0.610	0.386	1.00	Yes	1.00	**12.58**
		U_1 - U_2			-----	-726.72	-63	-694	-85	-376	186	-334	179	391	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.166	1	Yes	0.818	0.140	0.96	Yes	1.00	**4.95**
		U_2 - U_3			-----	-1085.44	34	-596	-97	-387	142	-691	239	165	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.133	1	Yes	0.849	0.097	0.95	Yes	1.00	**4.77**
		U_3 - U_4			-----	-1372.22	-210	-397	-457	-1277	-156	-146	-214	-560	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.201	1	Yes	0.787	0.141	0.93	Yes	1.00	**4.44**
		U_4 - U_5			-----	-1440.43	-434	-166	-1084	-476	-100	-64	543	-641	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.164	1	Yes	0.826	0.120	0.95	Yes	1.00	**4.45**
		U_5 - U_6			-----	-1412.23	-255	-373	-618	-1060	-179	-149	-148	-360	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.176	1	Yes	0.810	0.117	0.93	Yes	1.00	**4.65**
		U_6 - U_7			-----	-1400.51	-493	-157	-1230	-513	-121	-300	-261	-365	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.182	1	Yes	0.803	0.136	0.94	Yes	1.00	**4.60**
		U_7 - U_8			-----	-1217.46	-254	-10	-701	-206	-119	-336	-368	-486	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.168	1	Yes	0.813	0.097	0.91	Yes	1.00	**3.82**
		U_8 - U_9			-----	-845.11	-170	200	-656	82	-226	-212	-402	-262	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.191	1	Yes	0.793	0.109	0.91	Yes	1.00	**3.71**
		U_9 - U_{10}			257.24	-550.58	-84	360	-920	314	-20	-42	-199	-294	0.279	0.253	0.54	Yes	0.186	0.163	0.35	Yes	0.709	0.288	1	Yes	0.703	0.206	0.91	Yes	1.00	**6.07**
		U_{10} - U_{11}			753.14	-----	353	245	-382	314	79	242	-569	-190	0.817	0.177	1.00	Yes	0.553	0.119	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.14**
		U_{11} - U_{12}			804.77	-----	-128	860	-685	1545	516	625	52	375	0.659	0.336	1.00	Yes	0.451	0.228	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.06**
		U_{12} - U_{13}			967.97	-----	1839	-417	897	-153	241	112	396	490	0.671	0.328	1.00	Yes	0.468	0.224	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.96**
		U_{13} - U_{14}			858.87	-----	219	367	13	-467	-98	374	-36	-569	0.821	0.177	1.00	Yes	0.574	0.122	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.85**
		U_{14} - U_{15}			639.62	-277.75	457	222	26	-366	-54	261	903	-610	0.733	0.261	1.00	Yes	0.495	0.174	0.67	Yes	0.378	0.176	0.56	Yes	0.375	0.109	0.49	Yes	1.00	**7.01**
		U_{15} - U_{16}			372.95	-628.18	311	161	-237	-588	-72	226	46	5	0.427	0.178	0.61	Yes	0.293	0.122	0.42	Yes	0.855	0.136	1	Yes	0.847	0.140	0.99	Yes	1.00	**6.29**
		U_{16} - U_{17}			466.21	-643.27	449	105	-523	-495	222	-38	146	-185	0.534	0.162	0.70	Yes	0.367	0.111	0.48	Yes	0.875	0.092	0.97	Yes	0.867	0.124	1.00	Yes	1.00	**7.89**
		U_{17} - U_{18}			128.01	-643.52	257	-164	-410	-529	75	49	-48	-86	0.147	0.140	0.29	Yes	0.099	0.091	0.20	Yes	0.876	0.090	0.97	Yes	0.868	0.126	1.00	Yes	1.00	**5.34**
		U_{18} - U_{19}			0.58	-581.72	28	-69	-638	-152	231	-196	102	-286	0.001	0.200	0.21	Yes	0.000	0.137	0.14	Yes	0.792	0.199	1	Yes	0.784	0.152	0.94	Yes	1.00	**5.20**
		U_{19} - U_{20}			37.91	-608.18	125	-329	-587	-551	-143	-111	-168	-58	0.043	0.168	0.22	Yes	0.030	0.115	0.15	Yes	0.828	0.168	1	Yes	0.820	0.139	0.96	Yes	1.00	**10.49**

Moment (Start) AI Operating

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Lower Chord	Structure 1	L_0 - L_1	28.93	-221.58	696	-1159	-307	176	-558	-2052	64	234	0.044	0.788	0.84	Yes	0.026	0.469	0.50	Yes	0.402	0.593	1	Yes	0.399	0.348	0.75	Yes	1.00	**24.73**
		L_1 - L_2	377.90	-50.27	87	-795	-20	63	-813	464	397	-180	0.578	0.413	1.00	Yes	0.353	0.270	0.63	Yes	0.091	0.237	0.33	Yes	0.091	0.239	0.33	Yes	1.00	**6.57**
		L_2 - L_3	636.82	-170.29	-10	109	-728	-506	-194	133	207	-509	0.733	0.258	1.00	Yes	0.424	0.153	0.58	Yes	0.233	0.231	0.47	Yes	0.230	0.176	0.41	Yes	1.00	**6.00**
		L_3 - L_4	663.75	-401.45	49	440	-535	-349	346	-279	-635	286	0.764	0.231	1.00	Yes	0.454	0.145	0.60	Yes	0.549	0.147	0.7	Yes	0.543	0.129	0.68	Yes	1.00	**7.21**
		L_4 - L_5	-----	-571.57	110	467	-339	329	-86	218	221	47	-----	-----	-----	-----	-----	-----	-----	-----	0.879	0.115	1	Yes	0.871	0.124	1.00	Yes	1.00	**3.99**
		L_5 - L_6	-----	-745.82	126	588	-117	377	189	-208	81	-184	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.122	1	Yes	0.860	0.130	1.00	Yes	1.00	**3.72**
		L_6 - L_7	-----	-1168.41	289	-143	-158	223	-289	230	44	291	-----	-----	-----	-----	-----	-----	-----	-----	0.951	0.044	1	Yes	0.940	0.045	0.99	Yes	1.00	**5.91**
		L_7 - L_8	-----	-1232.37	-31	707	-79	1323	405	268	369	467	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.204	1	Yes	0.781	0.175	0.96	Yes	1.00	**2.83**
		L_8 - L_9	-----	-1252.32	1227	-65	705	-34	485	292	243	353	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.193	1	Yes	0.793	0.162	0.96	Yes	1.00	**3.46**
		L_9 - L_{10}	-----	-1065.16	819	-902	169	68	-226	237	439	-260	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.065	0.94	Yes	0.857	0.142	1.00	Yes	1.00	**10.69**
		L_{10} - L_{11}	53.28	-551.36	579	-546	183	-290	-146	-472	-265	153	0.069	0.236	0.31	Yes	0.040	0.141	0.19	Yes	0.848	0.130	0.98	Yes	0.840	0.153	1.00	Yes	1.00	**8.46**
		L_{11} - L_{12}	411.99	-----	589	-1079	233	-327	-984	821	96	-43	0.534	0.458	1.00	Yes	0.320	0.293	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.92**
		L_{12} - L_{13}	1062.52	-----	46	-161	-428	-548	-157	122	-49	-507	0.838	0.156	1.00	Yes	0.536	0.095	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.37**
		L_{13} - L_{14}	1329.48	-----	182	-526	-108	-1241	147	17	-554	458	0.782	0.217	1.00	Yes	0.507	0.134	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.33**
		L_{14} - L_{15}	1608.21	-----	-495	-169	-1488	-408	-184	94	452	19	0.786	0.211	1.00	Yes	0.511	0.128	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.38**
		L_{15} - L_{16}	1737.99	-----	-278	-435	-930	-1043	-1	-186	-1	340	0.849	0.150	1.00	Yes	0.545	0.088	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.96**
		L_{16} - L_{17}	1277.22	-----	-416	55	-1126	108	-123	174	189	-205	0.808	0.184	1.00	Yes	0.524	0.113	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.32**
		L_{17} - L_{18}	945.90	-----	-225	-17	-669	98	82	-115	-306	-154	0.824	0.168	1.00	Yes	0.527	0.102	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.34**
		L_{18} - L_{19}	433.06	-----	-259	231	-971	532	-165	126	-193	75	0.663	0.331	1.00	Yes	0.448	0.207	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.25**
		L_{19} - L_{20}	57.48	-250.03	-168	56	-1352	826	143	32	-37	-8	0.097	0.474	0.58	Yes	0.060	0.285	0.35	Yes	0.502	0.496	1	Yes	0.497	0.441	0.94	Yes	1.00	**16.69**
	Structure 2	L_0 - L_1	44.44	-444.78	447	-1508	-83	-83	-345	-1198	35	122	0.054	0.503	0.56	Yes	0.032	0.316	0.35	Yes	0.640	0.360	1	Yes	0.636	0.307	0.95	Yes	1.00	**15.31**
		L_1 - L_2	449.91	-----	596	-1475	126	-232	-887	726	169	-114	0.546	0.446	1.00	Yes	0.325	0.282	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.27**
		L_2 - L_3	1049.10	-----	94	-979	-107	-359	298	-127	-168	165	0.827	0.173	1.00	Yes	0.542	0.104	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.10**
		L_3 - L_4	1306.08	-----	42	-940	-135	-1467	315	-16	-604	653	0.767	0.224	1.00	Yes	0.517	0.140	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.45**
		L_4 - L_5	1817.08	-----	-416	-344	-1097	-1242	-97	157	511	82	0.847	0.152	1.00	Yes	0.561	0.092	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.08**
		L_5 - L_6	1883.54	-----	-204	-420	-724	-1746	197	-96	-140	469	0.808	0.184	1.00	Yes	0.542	0.113	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.43**
		L_6 - L_7	1895.38	-----	-526	-173	-1810	-1375	-160	221	361	-560	0.802	0.194	1.00	Yes	0.533	0.115	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.91**
		L_7 - L_8	1389.43	-57.72	-289	414	-1340	-409	226	-138	-599	335	0.797	0.197	1.00	Yes	0.523	0.118	0.65	Yes	0.039	0.146	0.19	Yes	0.039	0.148	0.19	Yes	1.00	**4.67**
		L_8 - L_9	1154.13	-463.90	-54	617	-1109	340	-83	180	394	-146	0.807	0.187	1.00	Yes	0.544	0.117	0.67	Yes	0.385	0.089	0.48	Yes	0.382	0.150	0.54	Yes	1.00	**5.75**
		L_9 - L_{10}	650.38	-793.28	-116	851	-1021	227	136	-176	-131	-83	0.581	0.184	0.77	Yes	0.338	0.115	0.46	Yes	0.839	0.091	0.93	Yes	0.833	0.163	1.00	Yes	1.00	**6.05**
		L_{10} - L_{11}	-----	-754.75	23	563	-635	561	-89	94	23	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.892	0.075	0.97	Yes	0.887	0.111	1.00	Yes	1.00	**3.65**
		L_{11} - L_{12}	-----	-1025.87	-72	1103	-524	879	89	-335	78	-215	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.125	0.98	Yes	0.841	0.150	1.00	Yes	1.00	**3.81**
		L_{12} - L_{13}	-----	-1471.63	210	-933	-493	-176	-406	17	31	212	-----	-----	-----	-----	-----	-----	-----	-----	0.895	0.100	1	Yes	0.888	0.094	0.99	Yes	1.00	**5.52**
		L_{13} - L_{14}	-----	-1509.23	-528	1554	-946	2721	508	465	189	373	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.192	0.96	Yes	0.759	0.238	1.00	Yes	1.00	**3.19**
		L_{14} - L_{15}	-----	-1510.41	2676	-893	1624	-530	378	221	356	304	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.178	0.95	Yes	0.760	0.234	1.00	Yes	1.00	**2.82**
		L_{15} - L_{16}	-----	-1408.21	-153	-65	-1071	187	293	-440	223	-299	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.142	1	Yes	0.842	0.106	0.95	Yes	1.00	**7.03**
		L_{16} - L_{17}	-----	-1161.58	1210	-354	687	-146	-333	-592	-419	11	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.137	1	Yes	0.846	0.149	1.00	Yes	1.00	**4.72**
		L_{17} - L_{18}	-----	-812.97	789	-813	353	96	-497	443	31	-181	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.133	1	Yes	0.854	0.130	0.99	Yes	1.00	**7.65**
		L_{18} - L_{19}	-----	-649.37	683	124	245	-344	-239	38	144	-57	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.107	0.98	Yes	0.865	0.132	1.00	Yes	1.00	**6.04**
		L_{19} - L_{20}	396.20	-633.17	527	327	173	-772	183	-229	-560	378	0.449	0.235	0.69	Yes	0.266	0.147	0.42	Yes	0.849	0.124	0.98	Yes	0.844	0.149	1.00	Yes	1.00	**8.05**
		L_{20} - L_{21}	968.15	-450.41	438	74	-809	-1000	-189	42	7	-717	0.772	0.223	1.00	Yes	0.506	0.137	0.65	Yes	0.426	0.181	0.61	Yes	0.423	0.146	0.57	Yes	1.00	**6.98**
		L_{21} - L_{22}	948.01	-278.38	182	16	-593	-1302	143	-190	-487	450	0.756	0.242	1.00	Yes	0.506	0.153	0.66	Yes	0.263	0.193	0.46	Yes	0.261	0.190	0.46	Yes	1.00	**5.87**
		L_{22} - L_{23}	916.36	-342.33	73	188	-1499	-382	-75	191	449	-52	0.731	0.267	1.00	Yes	0.489	0.168	0.66	Yes	0.323	0.213	0.54	Yes	0.321	0.219	0.54	Yes	1.00	**6.63**
		L_{23} - L_{24}	997.97	-702.24	224	587	-1106	-316	156	-168	-74	385	0.796	0.203	1.00	Yes	0.522	0.122	0.65	Yes	0.663	0.136	0.8	Yes	0.659	0.161	0.83	Yes	1.00	**10.71**
		L_{24} - L_{25}	16.89	-639.62	383	515	-757	657	-110	152	573	-267	0.019	0.234	0.26	Yes	0.011	0.146	0.16	Yes	0.858	0.086	0.95	Yes	0.852	0.146	1.00	Yes	1.00	**8.20**
		L_{25} - L_{26}	-----	-649.96	120	674	-503	543	100	-169	-100	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.872	0.102	0.98	Yes	0.866	0.130	1.00	Yes	1.00	**6.30**
		L_{26} - L_{27}	-----	-845.93	264	396	-411	669	-74	335	112	-29	-----	-----	-----	-----	-----	-----	-----	-----	0.894	0.083	0.98	Yes	0.888	0.107	1.00	Yes	1.00	**5.35**
		L_{27} - L_{28}	-----	-1128.16	115	1139	-441	1435	455	-275	-12	-176	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.142	0.98	Yes	0.822	0.177	1.00	Yes	1.00	**7.82**
		L_{28} - L_{29}	-----	-1521.09	513	-555	-421	-516	52	878	-254	14	-----	-----	-----	-----	-----	-----	-----	-----	0.917	0.080	1	Yes	0.910	0.055	0.97	Yes	1.00	**7.59**
		L_{29} - L_{30}	-----	-1503.48	-648	1486	-1088	2787	637	725	220	364	-----	-----	-----	-----	-----	-----	-----	-----	0.763	0.203	0.97	Yes	0.757	0.243	1.00	Yes	1.00	**3.47**
		L_{30} - L_{31}	-----	-1541.92	2554	-882	1744	-546	241	55	518	413	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.182	0.97	Yes	0.776	0.223	1.00	Yes	1.00	**2.24**
		L_{31} - L_{32}	-----	-1518.67	-172	-356	-626	-329	353	-264	-336	-150	-----	-----	-----	-----	-----	-----	-----	-----	0.916	0.083	1	Yes	0.908	0.062	0.98	Yes	1.00	**3.79**
		L_{32} - L_{33}	-----	-1042.61	1031	-320	579	-339	83	-6	-426	49	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.113	0.98	Yes	0.855	0.140	1.00	Yes	1.00	**3.36**
		L_{33} - L_{34}	6.97	-738.37	706	-323	419	-475	-150	218	137	-35	0.007	0.153	0.16	Yes	0.004	0.096	0.10	Yes	0.873	0.078	0.96	Yes	0.867	0.123	1.00	Yes	1.00	**4.43**
		L_{34} - L_{35}	653.80	-812.38	878	-77	-9	-637	-209	81	-213	343	0.584	0.182	0.77	Yes	0.340	0.112	0.46	Yes	0.859	0.085	0.95	Yes	0.853	0.140	1.00	Yes	1.00	**7.94**
		L_{35} - L_{36}	1186.53	-703.16	777	65	166	-958	173	-179	334	137	0.830	0.161	1.00	Yes	0.559	0.101	0.66	Yes	0.583	0.087	0.67	Yes	0.579	0.129	0.71	Yes	1.00	**10.24**
		L_{36} - L_{37}	1380.29	-----	326	-242	-528	-1479	-198	148	503	-490	0.791	0.204	1.00	Yes	0.520	0.122	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.21**
		L_{37} - L_{38}	1811.84	-----	-126	-625	-1600	-1869	69	-192	-1009	528	0.767	0.227	1.00	Yes	0.510	0.136	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.59**
		L_{38} - L_{39}	1845.13	-----	-526	-219	-1863	-700	-122	179	638	139	0.792	0.205	1.00	Yes	0.531	0.127	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.15**
		L_{39} - L_{40}	1807.61	-----	-352	-423	-1379	-945	119	-153	129	320	0.843	0.152	1.00	Yes	0.558	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.56**
		L_{40} - L_{41}	1372.07	-----	-422	27	-1352	69	-29	300	197	-162	0.814	0.185	1.00	Yes	0.549	0.119	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.39**
		L_{41} - L_{42}	1034.60	-----	-212	-83	-1011	206	143	-68	-209	-72	0.826	0.172	1.00	Yes	0.543	0.099	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.78**
		L_{42} - L_{43}	562.91	-19.76	-228	202	-1255	571	186	371	185	20	0.684	0.316	1.00	Yes	0.407	0.202	0.61	Yes	0.028	0.153	0.19	Yes	0.028	0.255	0.29	Yes	1.00	**11.23**
		L_{43} - L_{44}	-----	-348.32	-142	-5	-1927	809	524	153	307	89	-----	-----	-----	-----	-----	-----	-----	-----	0.501	0.493	1	Yes	0.498	0.392	0.89	Yes	1.00	**18.15**
	Structure 3	L_0 - L_1	-----	-448.76	307	-638	45	-178	-42	-190	27	124	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.136	0.96	Yes	0.808	0.191	1.00	Yes	1.00	**5.87**
		L_1 - L_2	161.65	-38.23	955	-1685	137	-188	-734	1149	161	-114	0.247	0.744	1.00	Yes	0.167	0.474	0.65	Yes	0.069	0.444	0.52	Yes	0.069	0.506	0.58	Yes	1.00	**16.38**
		L_2 - L_3	932.64	-----	152	-644	-138	-357	440	-47	-255	171	0.812	0.180	1.00	Yes	0.520	0.110	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.91**
		L_3 - L_4	1148.09	-----	118	-1328	19	-671	-343	826	130	8	0.726	0.268	1.00	Yes	0.471	0.167	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.23**
		L_4 - L_5	1628.34	-----	-377	-263	-1274	-921	-28	228	217	-623	0.796	0.197	1.00	Yes	0.511	0.117	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.02**
		L_5 - L_6	1605.03	-----	-139	-480	-566	-1417	255	-46	-432	627	0.784	0.215	1.00	Yes	0.510	0.131	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.34**
		L_6 - L_7	1301.18	-----	-489	236	-1389	158	-51	263	435	-107	0.765	0.228	1.00	Yes	0.496	0.140	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.31**
		L_7 - L_8	1115.56	-82.40	-88	189	-542	-182	146	-198	-146	148	0.880	0.119	1.00	Yes	0.563	0.071	0.64	Yes	0.077	0.098	0.18	Yes	0.077	0.096	0.18	Yes	1.00	**8.85**
		L_8 - L_9	555.75	-352.60	-144	442	-860	414	-128	194	281	-279	0.720	0.277	1.00	Yes	0.432	0.181	0.62	Yes	0.542	0.113	0.66	Yes	0.537	0.228	0.77	Yes	1.00	**9.01**
		L_9 - L_{10}	-----	-562.79	-62	518	-516	402	199	-87	-46	-157	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.078	0.95	Yes	0.857	0.137	1.00	Yes	1.00	**7.40**
		L_{10} - L_{11}	-----	-1095.75	203	-190	-503	705	-437	-404	317	116	-----	-----	-----	-----	-----	-----	-----	-----	0.892	0.069	0.97	Yes	0.882	0.111	1.00	Yes	1.00	**12.20**
		L_{11} - L_{12}	-----	-1252.73	-37	779	-90	1336	412	144	90	164	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.190	1	Yes	0.793	0.177	0.98	Yes	1.00	**4.38**
		L_{12} - L_{13}	-----	-1282.08	1286	-57	753	-32	66	7	29	210	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.173	1	Yes	0.812	0.170	0.99	Yes	1.00	**3.22**
		L_{13} - L_{14}	-----	-1080.30	304	-515	24	198	-133	159	223	-254	-----	-----	-----	-----	-----	-----	-----	-----	0.879	0.117	1	Yes	0.870	0.081	0.96	Yes	1.00	**5.36**
		L_{14} - L_{15}	-----	-714.80	565	103	157	-275	-255	76	-179	-575	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.145	1	Yes	0.838	0.128	0.97	Yes	1.00	**4.95**
		L_{15} - L_{16}	192.77	-561.33	482	147	176	-512	259	-224	-657	532	0.250	0.252	0.51	Yes	0.150	0.160	0.32	Yes	0.863	0.134	1	Yes	0.855	0.135	1.00	Yes	1.00	**5.94**
		L_{16} - L_{17}	719.50	-191.34	414	-30	-438	-397	-172	160	358	-48	0.828	0.163	1.00	Yes	0.492	0.103	0.60	Yes	0.261	0.134	0.4	Yes	0.259	0.106	0.37	Yes	1.00	**6.30**
		L_{17} - L_{18}	732.19	-80.53	110	-67	-523	-447	94	-109	-148	67	0.842	0.150	1.00	Yes	0.487	0.090	0.58	Yes	0.110	0.164	0.28	Yes	0.109	0.126	0.24	Yes	1.00	**7.21**
		L_{18} - L_{19}	467.33	-46.63	31	-32	-728	2	-92	212	-10	290	0.715	0.281	1.00	Yes	0.436	0.187	0.63	Yes	0.085	0.260	0.35	Yes	0.084	0.218	0.31	Yes	1.00	**7.25**
		L_{19} - L_{20}	211.42	-90.52	309	-431	-1954	1820	73	20	375	102	0.324	0.667	1.00	Yes	0.190	0.408	0.60	Yes	0.164	0.675	0.84	Yes	0.163	0.586	0.75	Yes	1.00	**49.80**

Moment (Start) AI Operating

Operating Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 | LL Factor: 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression											
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in	-----	-----	-----	-----	-----	-----	-----	-----	0.669	0.325	1	Yes	0.634	0.195	0.83	Yes	1.00	**2.57**
South Truss - Verticals	Structure 1	U_0 - L_0			-----	-299.48	-2	47	-57	152	168	54	-782	-251	-----	-----	-----	-----	-----	-----	-----	-----	0.669	0.325	1	Yes	0.634	0.195	0.83	Yes	1.00	**2.57**
		U_1 - L_1			40.98	-305.03	43	-35	-234	226	610	209	-933	-385	0.074	0.569	0.65	Yes	0.041	0.313	0.36	Yes	0.666	0.324	1	Yes	0.645	0.299	0.95	Yes	1.00	**5.27**
		U_2 - L_2			68.34	-133.02	66	-71	-28	59	747	242	-2687	-811	0.123	0.869	1.00	Yes	0.068	0.478	0.55	Yes	0.291	0.665	0.96	Yes	0.281	0.091	0.38	Yes	1.00	**3.97**
		U_3 - L_3			235.16	-10.08	240	-250	27	-14	-872	-742	-684	-154	0.423	0.572	1.00	Yes	0.233	0.314	0.55	Yes	0.022	0.328	0.36	Yes	0.021	0.319	0.35	Yes	1.00	**8.49**
		U_4 - L_4			-----	-178.84	301	-311	74	-75	-1459	-611	686	333	-----	-----	-----	-----	-----	-----	-----	-----	0.393	0.602	1	Yes	0.378	0.398	0.78	Yes	1.00	**10.50**
		U_5 - L_5			-----	-363.42	181	-199	79	-85	150	211	1105	631	-----	-----	-----	-----	-----	-----	-----	-----	0.658	0.340	1	Yes	0.627	0.202	0.83	Yes	1.00	**4.47**
		U_6 - L_6			-----	-402.86	160	-153	82	-72	612	276	1341	661	-----	-----	-----	-----	-----	-----	-----	-----	0.610	0.386	1	Yes	0.578	0.140	0.72	Yes	1.00	**3.14**
		U_7 - L_7			-----	-378.25	237	-259	117	-132	250	31	965	251	-----	-----	-----	-----	-----	-----	-----	-----	0.632	0.366	1	Yes	0.584	0.255	0.84	Yes	1.00	**2.72**
		U_8 - L_8			-----	-1168.86	208	-257	-340	403	986	169	-1482	-626	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.146	1	Yes	0.813	0.075	0.89	Yes	1.00	**6.52**
		U_9 - L_9			-----	-661.18	-230	262	-408	452	587	221	-452	-125	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.175	0.97	Yes	0.747	0.251	1.00	Yes	1.00	**3.45**
		U_{10} - L_{10}			-----	-781.41	-158	155	-347	360	598	276	-738	-271	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.182	1	Yes	0.771	0.187	0.96	Yes	1.00	**5.06**
		U_{11} - L_{11}			-----	-665.78	-166	222	-383	483	613	384	-740	-123	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.196	1	Yes	0.775	0.224	1.00	Yes	1.00	**4.90**
		U_{12} - L_{12}			-----	-422.96	-137	138	-210	226	664	370	-1958	-530	-----	-----	-----	-----	-----	-----	-----	-----	0.611	0.382	1	Yes	0.580	0.193	0.78	Yes	1.00	**3.05**
		U_{13} - L_{13}			-----	-314.18	-85	102	-172	198	544	252	-122	152	-----	-----	-----	-----	-----	-----	-----	-----	0.635	0.365	1	Yes	0.602	0.226	0.83	Yes	1.00	**4.02**
		U_{14} - L_{14}			-----	-150.64	-11	13	-102	117	-1605	-473	-474	-121	-----	-----	-----	-----	-----	-----	-----	-----	0.336	0.660	1	Yes	0.319	0.149	0.47	Yes	1.00	**8.24**
		U_{15} - L_{15}			30.95	-256.31	176	-201	-31	27	-1307	-415	456	96	0.056	0.635	0.70	Yes	0.031	0.349	0.39	Yes	0.574	0.418	1	Yes	0.542	0.257	0.80	Yes	1.00	**8.98**
		U_{16} - L_{16}			-----	-319.13	239	-251	37	-42	-672	-201	485	106	-----	-----	-----	-----	-----	-----	-----	-----	0.719	0.275	1	Yes	0.675	0.320	1.00	Yes	1.00	**7.10**
		U_{17} - L_{17}			-----	-418.81	198	-219	77	-90	-104	-11	505	197	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.211	1	Yes	0.723	0.223	0.95	Yes	1.00	**4.45**
		U_{18} - L_{18}			-----	-527.49	370	-383	174	-180	49	36	682	175	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.224	1	Yes	0.734	0.217	0.96	Yes	1.00	**4.29**
		U_{19} - L_{19}			-----	-644.64	391	-416	181	-195	224	22	600	121	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.191	1	Yes	0.750	0.193	0.95	Yes	1.00	**4.97**
		U_{20} - L_{20}			-----	-496.75	344	-402	229	-290	246	32	581	76	-----	-----	-----	-----	-----	-----	-----	-----	0.726	0.269	1	Yes	0.636	0.213	0.85	Yes	1.00	**2.60**
	Structure 2	U_0 - L_0			-----	-641.26	-149	267	-255	443	-27	-5	-858	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.228	1	Yes	0.687	0.188	0.88	Yes	1.00	**2.69**
		U_1 - L_1			-----	-714.08	-187	195	-548	551	619	151	-437	-110	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.145	0.97	Yes	0.765	0.234	1.00	Yes	1.00	**4.57**
		U_2 - L_2			-----	-596.41	-135	151	-432	457	619	266	-387	160	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.175	0.98	Yes	0.760	0.234	1.00	Yes	1.00	**4.14**
		U_3 - L_3			-----	-459.48	-65	76	-207	228	546	255	-229	136	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.211	1	Yes	0.721	0.207	0.93	Yes	1.00	**3.47**
		U_4 - L_4			-----	-318.69	-3	14	-183	196	574	224	-616	9	-----	-----	-----	-----	-----	-----	-----	-----	0.723	0.273	1	Yes	0.674	0.251	0.93	Yes	1.00	**4.67**
		U_5 - L_5			115.25	-255.22	89	-84	-135	168	579	168	-1146	-160	0.207	0.546	0.76	Yes	0.114	0.300	0.42	Yes	0.577	0.417	1	Yes	0.540	0.214	0.76	Yes	1.00	**7.16**
		U_6 - L_6			196.99	-----	119	-132	-53	58	599	162	-1637	-367	0.354	0.642	1.00	Yes	0.195	0.353	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.30**
		U_7 - L_7			-----	-175.39	211	-245	62	-70	-1434	-325	-49	-53	-----	-----	-----	-----	-----	-----	-----	-----	0.396	0.603	1	Yes	0.371	0.313	0.69	Yes	1.00	**11.02**
		U_8 - L_8			-----	-467.81	345	-369	167	-186	-597	-238	198	-163	-----	-----	-----	-----	-----	-----	-----	-----	0.678	0.178	0.86	Yes	0.674	0.322	1.00	Yes	1.00	**4.65**
		U_9 - L_9			-----	-693.31	563	-587	278	-280	-540	-160	1046	566	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.205	0.98	Yes	0.743	0.249	1.00	Yes	1.00	**5.45**
		U_{10} - L_{10}			-----	-755.73	519	-524	236	-235	-219	93	1160	717	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.252	1	Yes	0.707	0.231	0.94	Yes	1.00	**4.83**
		U_{11} - L_{11}			-----	-723.84	451	-448	226	-218	331	365	1216	702	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.263	1	Yes	0.677	0.199	0.88	Yes	1.00	**4.16**
		U_{12} - L_{12}			-----	-723.20	414	-412	184	-164	747	443	1482	651	-----	-----	-----	-----	-----	-----	-----	-----	0.694	0.303	1	Yes	0.627	0.178	0.81	Yes	1.00	**3.92**
		U_{13} - L_{13}			-----	-622.20	519	-512	218	-216	108	-14	1172	308	-----	-----	-----	-----	-----	-----	-----	-----	0.694	0.304	1	Yes	0.600	0.248	0.85	Yes	1.00	**4.32**
		U_{14} - L_{14}			-----	-1155.08	524	-502	-496	457	821	91	-1340	-714	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.149	1	Yes	0.766	0.093	0.86	Yes	1.00	**7.96**
		U_{15} - L_{15}			-----	-685.51	-248	261	-631	615	657	57	-683	-162	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.231	1	Yes	0.661	0.302	0.97	Yes	1.00	**4.97**
		U_{16} - L_{16}			-----	-713.19	-159	126	-495	481	796	157	-477	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.172	1	Yes	0.764	0.210	0.98	Yes	1.00	**4.55**
		U_{17} - L_{17}			-----	-643.59	-191	183	-521	526	673	150	-493	8	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.166	0.96	Yes	0.749	0.244	1.00	Yes	1.00	**4.47**
		U_{18} - L_{18}			-----	-581.40	-173	161	-455	488	660	167	-607	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.172	0.95	Yes	0.741	0.250	1.00	Yes	1.00	**4.37**
		U_{19} - L_{19}			-----	-478.50	-108	104	-285	288	562	174	-724	-50	-----	-----	-----	-----	-----	-----	-----	-----	0.720	0.207	0.93	Yes	0.715	0.277	1.00	Yes	1.00	**4.28**
		U_{20} - L_{20}			-----	-357.27	-59	62	-184	195	586	137	-714	-136	-----	-----	-----	-----	-----	-----	-----	-----	0.733	0.260	1	Yes	0.684	0.223	0.91	Yes	1.00	**5.79**
		U_{21} - L_{21}			-----	-277.89	-31	33	-163	186	661	111	-1016	-214	-----	-----	-----	-----	-----	-----	-----	-----	0.628	0.363	1	Yes	0.588	0.238	0.83	Yes	1.00	**7.95**
		U_{22} - L_{22}			-----	-160.94	110	-127	-45	54	-2196	-726	-1825	-577	-----	-----	-----	-----	-----	-----	-----	-----	0.362	0.628	1	Yes	0.341	0.162	0.51	Yes	1.00	**11.05**
		U_{23} - L_{23}			-----	-312.59	211	-233	34	-41	-706	-204	333	20	-----	-----	-----	-----	-----	-----	-----	-----	0.706	0.290	1	Yes	0.661	0.298	0.96	Yes	1.00	**6.30**
		U_{24} - L_{24}			-----	-315.80	164	-175	78	-81	-1068	-135	634	240	-----	-----	-----	-----	-----	-----	-----	-----	0.647	0.347	1	Yes	0.605	0.200	0.81	Yes	1.00	**2.60**
		U_{25} - L_{25}			-----	-470.54	304	-298	113	-111	-49	89	629	252	-----	-----	-----	-----	-----	-----	-----	-----	0.708	0.194	0.91	Yes	0.703	0.292	1.00	Yes	1.00	**3.59**
		U_{26} - L_{26}			-----	-582.43	485	-503	171	-168	47	215	717	314	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.189	0.97	Yes	0.742	0.257	1.00	Yes	1.00	**4.28**
		U_{27} - L_{27}			-----	-627.88	540	-544	184	-182	269	304	926	391	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.217	1	Yes	0.731	0.252	0.99	Yes	1.00	**4.89**
		U_{28} - L_{28}			-----	-605.73	420	-384	124	-94	707	230	1721	570	-----	-----	-----	-----	-----	-----	-----	-----	0.700	0.295	1	Yes	0.649	0.178	0.83	Yes	1.00	**4.41**
		U_{29} - L_{29}			-----	-608.51	600	-597	109	-117	-163	-81	1261	182	-----	-----	-----	-----	-----	-----	-----	-----	0.678	0.317	1	Yes	0.587	0.287	0.88	Yes	1.00	**5.92**
		U_{30} - L_{30}			-----	-1136.41	306	-318	-532	470	811	-124	-1101	-354	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.136	1	Yes	0.782	0.099	0.89	Yes	1.00	**6.76**
		U_{31} - L_{31}			-----	-722.32	-302	298	-543	523	485	84	-406	-40	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.193	1	Yes	0.696	0.260	0.96	Yes	1.00	**3.88**
		U_{32} - L_{32}			-----	-868.87	-212	182	-470	469	567	168	-569	-59	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.164	1	Yes	0.753	0.201	0.96	Yes	1.00	**4.66**
		U_{33} - L_{33}			-----	-821.29	-246	230	-487	496	423	179	-643	9	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.171	1	Yes	0.768	0.219	0.99	Yes	1.00	**4.90**
		U_{34} - L_{34}			-----	-773.12	-241	250	-487	524	553	315	-1011	-76	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.231	1	Yes	0.723	0.231	0.96	Yes	1.00	**5.46**
		U_{35} - L_{35}			-----	-692.91	-263	274	-529	574	631	362	-1111	-195	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.222	1	Yes	0.743	0.244	0.99	Yes	1.00	**5.95**
		U_{36} - L_{36}			-----	-470.57	-151	168	-329	358	558	264	-1141	-156	-----	-----	-----	-----	-----	-----	-----	-----	0.682	0.304	0.99	Yes	0.678	0.313	1.00	Yes	1.00	**5.50**
		U_{37} - L_{37}			-----	-178.95	-69	81	-207	245	466	131	-1133	-176	-----	-----	-----	-----	-----	-----	-----	-----	0.404	0.593	1	Yes	0.379	0.313	0.70	Yes	1.00	**9.94**
		U_{38} - L_{38}			176.61	-89.72	131	-136	-121	132	-1747	-623	478	144	0.318	0.680	1.00	Yes	0.175	0.374	0.55	Yes	0.202	0.473	0.68	Yes	0.190	0.174	0.37	Yes	1.00	**8.49**
		U_{39} - L_{39}			70.89	-294.88	192	-217	-63	58	-855	-249	521	154	0.127	0.524	0.66	Yes	0.070	0.288	0.36	Yes	0.666	0.332	1	Yes	0.624	0.277	0.91	Yes	1.00	**6.59**
		U_{40} - L_{40}			-----	-327.81	216	-222	24	-32	-192	-59	590	168	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.254	1	Yes	0.694	0.284	0.98	Yes	1.00	**4.48**
		U_{41} - L_{41}			-----	-463.75	232	-246	80	-88	59	52	570	188	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.209	1	Yes	0.727	0.224	0.96	Yes	1.00	**3.67**
		U_{42} - L_{42}			-----	-578.36	493	-501	156	-166	56	94	665	169	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.171	0.95	Yes	0.737	0.256	1.00	Yes	1.00	**4.74**
		U_{43} - L_{43}			-----	-710.28	523	-550	175	-193	357	156	634	186	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.155	0.97	Yes	0.761	0.233	1.00	Yes	1.00	**5.70**
		U_{44} - L_{44}			-----	-650.91	489	-602	240	-307	327	55	746	127	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.215	1	Yes	0.698	0.255	0.96	Yes	1.00	**4.48**
	Structure 3	U_0 - L_0			-----	-546.13	-133	231	-219	365	109	14	-499	-65	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.211	1	Yes	0.684	0.188	0.88	Yes	1.00	**2.40**
		U_1 - L_1			-----	-650.35	-208	207	-517	510	619	144	-470	-44	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.162	0.98	Yes	0.757	0.240	1.00	Yes	1.00	**4.61**
		U_2 - L_2			-----	-548.07	-159	170	-380	406	661	306	-502	105	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.194	1	Yes	0.762	0.230	1.00	Yes	1.00	**4.10**
		U_3 - L_3			-----	-409.54	-70	85	-187	209	567	271	-385	97	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.233	1	Yes	0.707	0.212	0.92	Yes	1.00	**3.23**
		U_4 - L_4			-----	-228.97	-47	53	-121	138	585	230	-1980	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.516	0.477	1	Yes	0.484	0.177	0.67	Yes	1.00	**3.23**
		U_5 - L_5			53.04	-181.39	59	-34	-119	143	-1518	-1124	-1132	-49	0.095	0.622	0.72	Yes	0.052	0.342	0.40	Yes	0.407	0.592	1	Yes	0.384	0.182	0.57	Yes	1.00	**9.69**
		U_6 - L_6			-----	-152.58	210	-236	51	-57	-1607	-520	616	187	-----	-----	-----	-----	-----	-----	-----	-----	0.340	0.655	1	Yes	0.323	0.302	0.63	Yes	1.00	**9.35**
		U_7 - L_7			-----	-369.60	226	-254	102	-118	-275	-86	543	180	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.229	0.98	Yes	0.708	0.290	1.00	Yes	1.00	**4.61**
		U_8 - L_8			-----	-517.90	334	-335	156	-154	-209	33	721	360	-----	-----	-----	-----	-----	-----	-----	-----	0.748	0.227	0.98	Yes	0.711	0.286	1.00	Yes	1.00	**5.62**
		U_9 - L_9			-----	-597.46	373	-462	182	-227	260	303	1316	788	-----	-----	-----	-----	-----	-----	-----	-----	0.717	0.280	1	Yes	0.695	0.214	0.91	Yes	1.00	**5.26**
		U_{10} - L_{10}			-----	-628.86	269	-265	157	-149	700	438	1472	811	-----	-----	-----	-----	-----	-----	-----	-----	0.651	0.343	1	Yes	0.620	0.140	0.77	Yes	1.00	**3.48**
		U_{11} - L_{11}			-----	-579.57	351	-402	211	-246	454	255	1127	531	-----	-----	-----	-----	-----	-----	-----	-----	0.691	0.302	1	Yes	0.655	0.223	0.88	Yes	1.00	**2.63**
		U_{12} - L_{12}			-----	-1111.31	349	-470	-279	290	1340	398	-1689	-512	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.190	1	Yes	0.770	0.087	0.86	Yes	1.00	**7.12**
		U_{13} - L_{13}			-----	-445.62	-154	169	-292	311	533	56	-393	-115	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.212	0.96	Yes	0.687	0.306	1.00	Yes	1.00	**3.25**
		U_{14} - L_{14}			-----	-419.88	-98	92	-160	168	684	224	-1653	-551	-----	-----	-----	-----	-----	-----	-----	-----	0.636	0.360	1	Yes	0.602	0.147	0.75	Yes	1.00	**2.77**
		U_{15} - L_{15}			-----	-360.10	-79	86	-163	180	704	242	-92	47	-----	-----	-----	-----	-----	-----	-----	-----	0.652	0.341	1	Yes	0.621	0.182	0.81	Yes	1.00	**4.38**
		U_{16} - L_{16}			-----	-197.62	-71	75	-238	244	-815	-45	-755	-353	-----	-----	-----	-----	-----	-----	-----	-----	0.435	0.556	1	Yes	0.418	0.312	0.74	Yes	1.00	**10.94**
		U_{17} - L_{17}			191.77	-73.14	52	-64	-190	213	-1307	-605	479	178	0.345	0.651	1.00	Yes	0.190	0.358	0.55	Yes	0.160	0.393	0.56	Yes	0.155	0.272	0.43	Yes	1.00	**11.43**
		U_{18} - L_{18}			152.52	-255.16	201	-236	-158	172	-1342	-495	468	147	0.274	0.690	0.97	Yes	0.151	0.379	0.54	Yes	0.558	0.440	1	Yes	0.540	0.301	0.85	Yes	1.00	**12.05**
		U_{19} - L_{19}			15.92	-352.99	162	-181	-62	45	59	39	430	229	0.029	0.356	0.39	Yes	0.016	0.196	0.22	Yes	0.771	0.227	1	Yes	0.747	0.232	0.98	Yes	1.00	**7.07**
		U_{20} - L_{20}			-----	-302.21	183	-214	67	-74	328	105	620	199	-----	-----	-----	-----	-----	-----	-----	-----	0.675	0.325	1	Yes	0.639	0.273	0.92	Yes	1.00	**3.85**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
South Truss - Diagonals	Structure 1	$U_0 - L_1$	513.35	-201.87	91	-28	-167	46	-421	-149	493	-72	0.673	0.319	1.00	Yes	0.407	0.176	0.59	Yes	0.345	0.246	0.6	Yes	0.312	0.195	0.51	Yes	1.00	**16.28**
		$U_1 - L_2$	356.38	-139.84	20	-18	-92	-5	453	257	-833	-785	0.641	0.359	1.00	Yes	0.353	0.197	0.55	Yes	0.321	0.322	0.65	Yes	0.296	0.117	0.42	Yes	1.00	**5.77**
		$U_2 - L_3$	-----	-201.34	37	-26	-50	-39	442	224	-1877	-250	-----	-----	-----	-----	-----	-----	-----	-----	0.463	0.534	1	Yes	0.426	0.064	0.49	Yes	1.00	**5.65**
		$U_3 - L_4$	-----	-304.67	61	-7	-9	-57	582	339	-750	-529	-----	-----	-----	-----	-----	-----	-----	-----	0.697	0.298	1	Yes	0.645	0.077	0.73	Yes	1.00	**7.41**
		$U_4 - L_4$	564.33	-----	5	97	-124	46	-110	171	62	-29	0.828	0.165	1.00	Yes	0.455	0.091	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.38**
		$U_4 - L_5$	671.29	-----	11	210	-241	253	-220	91	20	313	0.794	0.201	1.00	Yes	0.437	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.02**
		$U_5 - L_6$	621.51	-----	-37	92	-266	253	-569	38	125	605	0.735	0.262	1.00	Yes	0.404	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.48**
		$U_6 - L_7$	677.27	-----	85	226	-69	266	248	-198	-226	55	0.801	0.197	1.00	Yes	0.440	0.108	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.74**
		$U_8 - L_9$	938.27	-----	31	199	-78	369	605	304	-601	-368	0.750	0.242	1.00	Yes	0.465	0.136	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.61**
		$U_9 - L_{10}$	945.71	-----	-113	137	-291	246	583	265	-878	-567	0.756	0.241	1.00	Yes	0.468	0.137	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.16**
		$U_{10} - L_{11}$	896.05	-----	-71	127	-266	190	283	30	-914	-799	0.757	0.243	1.00	Yes	0.469	0.138	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.42**
		$U_{11} - L_{12}$	719.88	-----	-92	72	-278	63	189	-33	-798	-1038	0.712	0.284	1.00	Yes	0.392	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.53**
		$U_{12} - L_{13}$	421.74	-----	-86	62	-160	94	79	-51	-1746	-475	0.514	0.480	1.00	Yes	0.323	0.280	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.89**
		$U_{13} - L_{14}$	348.35	-----	-32	10	-83	13	187	2	-895	-872	0.627	0.365	1.00	Yes	0.345	0.201	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.82**
		$U_{15} - L_{14}$	314.63	-190.11	31	-51	-124	-37	-343	-186	944	-347	0.566	0.431	1.00	Yes	0.311	0.237	0.55	Yes	0.445	0.459	0.91	Yes	0.402	0.158	0.57	Yes	1.00	**15.16**
		$U_{16} - L_{15}$	392.18	-21.87	-11	-8	-156	88	-299	-125	326	28	0.705	0.294	1.00	Yes	0.388	0.162	0.55	Yes	0.052	0.176	0.23	Yes	0.046	0.199	0.25	Yes	1.00	**9.51**
		$U_{17} - L_{16}$	525.26	-----	-44	21	-148	95	-311	-110	91	-2	0.770	0.223	1.00	Yes	0.424	0.122	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.57**
		$U_{18} - L_{17}$	617.96	-----	-128	86	-338	254	-406	-118	74	55	0.731	0.265	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.18**
		$U_{19} - L_{18}$	696.36	-----	-129	94	-330	249	-461	-207	-91	49	0.754	0.245	1.00	Yes	0.415	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.51**
		$U_{20} - L_{19}$	704.58	-----	-178	142	-369	295	-273	-140	-28	-58	0.763	0.234	1.00	Yes	0.420	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.01**
	Structure 2	$U_0 - L_1$	670.38	-----	-37	91	-366	273	-450	-168	1076	458	0.663	0.331	1.00	Yes	0.365	0.182	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.84**
		$U_1 - L_2$	705.80	-----	-151	107	-382	291	171	-6	-791	-572	0.698	0.295	1.00	Yes	0.384	0.162	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.82**
		$U_2 - L_3$	579.11	-----	-104	76	-310	248	156	-2	-767	-545	0.685	0.314	1.00	Yes	0.377	0.173	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.78**
		$U_3 - L_4$	513.50	-----	-45	19	-166	109	193	28	-755	-482	0.684	0.310	1.00	Yes	0.376	0.171	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.79**
		$U_4 - L_5$	310.41	-75.59	13	-25	-124	71	270	60	-945	-456	0.558	0.433	1.00	Yes	0.307	0.238	0.55	Yes	0.187	0.415	0.61	Yes	0.160	0.159	0.32	Yes	1.00	**5.68**
		$U_5 - L_6$	244.81	-240.33	69	-69	-84	2	404	129	-1419	-499	0.440	0.518	0.96	Yes	0.242	0.285	0.53	Yes	0.568	0.432	1	Yes	0.509	0.107	0.62	Yes	1.00	**8.61**
		$U_6 - L_7$	-----	-298.72	62	-73	-25	-86	349	170	-688	-1013	-----	-----	-----	-----	-----	-----	-----	-----	0.640	0.358	1	Yes	0.572	0.098	0.68	Yes	1.00	**6.48**
		$U_8 - L_7$	537.07	-----	-85	77	-205	109	-270	-67	-33	610	0.685	0.308	1.00	Yes	0.431	0.175	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.42**
		$U_8 - L_9$	717.36	-----	-161	169	-345	235	-256	-63	142	-15	0.777	0.219	1.00	Yes	0.427	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.36**
		$U_{10} - L_9$	811.27	-----	-117	177	-357	256	-135	21	127	148	0.803	0.188	1.00	Yes	0.441	0.103	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.72**
		$U_{11} - L_{10}$	874.65	-----	-120	199	-350	296	-243	68	194	328	0.797	0.193	1.00	Yes	0.438	0.106	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.55**
		$U_{12} - L_{11}$	845.27	-----	-127	176	-342	345	-600	64	-57	253	0.770	0.228	1.00	Yes	0.423	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.34**
		$U_{13} - L_{12}$	727.72	-----	-158	163	-415	381	-529	-7	-241	161	0.720	0.272	1.00	Yes	0.396	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		$U_{14} - L_{13}$	730.22	-----	23	203	-254	418	505	-142	-133	46	0.722	0.269	1.00	Yes	0.397	0.148	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.21**
		$U_{14} - L_{15}$	591.46	-----	8	151	-187	345	568	259	-320	-115	0.699	0.298	1.00	Yes	0.385	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		$U_{15} - L_{16}$	580.88	-----	-155	150	-344	317	599	195	59	-361	0.687	0.303	1.00	Yes	0.378	0.167	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.20**
		$U_{16} - L_{17}$	663.50	-----	-110	163	-316	345	592	243	-378	-281	0.719	0.274	1.00	Yes	0.395	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.02**
		$U_{17} - L_{18}$	620.63	-----	-98	149	-278	276	556	203	-483	-313	0.734	0.258	1.00	Yes	0.404	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.80**
		$U_{18} - L_{19}$	602.32	-----	-71	134	-275	247	466	180	-680	-477	0.712	0.279	1.00	Yes	0.392	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.46**
		$U_{19} - L_{20}$	511.06	-----	-45	62	-181	124	383	170	-694	-891	0.652	0.344	1.00	Yes	0.358	0.198	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.55**
		$U_{20} - L_{21}$	344.30	-----	-16	25	-113	94	413	220	-791	-346	0.619	0.373	1.00	Yes	0.341	0.205	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.01**
		$U_{21} - L_{22}$	275.01	-48.47	13	-3	-96	29	671	527	-1311	-532	0.495	0.502	1.00	Yes	0.272	0.276	0.55	Yes	0.115	0.434	0.55	Yes	0.103	0.123	0.23	Yes	1.00	**11.27**
		$U_{23} - L_{22}$	372.75	-----	2	22	-124	37	-260	48	575	-77	0.670	0.325	1.00	Yes	0.369	0.179	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.78**
		$U_{24} - L_{23}$	417.34	-----	-19	37	-131	104	-219	-6	265	90	0.751	0.245	1.00	Yes	0.413	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.82**
		$U_{25} - L_{24}$	564.52	-----	-43	77	-180	165	-262	-33	128	569	0.720	0.277	1.00	Yes	0.396	0.158	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.06**
		$U_{26} - L_{25}$	661.01	-----	-64	124	-260	293	-226	-1	281	249	0.781	0.217	1.00	Yes	0.430	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.40**
		$U_{27} - L_{26}$	626.69	-----	-82	129	-264	304	-430	140	101	268	0.741	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.02**
		$U_{28} - L_{27}$	654.67	-----	-71	128	-279	348	-632	31	-55	218	0.709	0.282	1.00	Yes	0.390	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.33**
		$U_{29} - L_{28}$	580.56	-----	-63	79	-340	320	-636	-77	7	572	0.686	0.308	1.00	Yes	0.378	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.69**
		$U_{30} - L_{29}$	621.92	-49.89	92	2	-187	352	-325	-291	-116	84	0.735	0.258	1.00	Yes	0.404	0.142	0.55	Yes	0.079	0.165	0.25	Yes	0.069	0.199	0.27	Yes	1.00	**8.90**
		$U_{30} - L_{31}$	725.78	-----	-45	222	-258	436	509	233	-473	-244	0.718	0.278	1.00	Yes	0.395	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.67**
		$U_{31} - L_{32}$	734.37	-----	-225	211	-425	377	473	139	-424	-248	0.727	0.268	1.00	Yes	0.400	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		$U_{32} - L_{33}$	820.31	-----	-151	201	-337	331	451	145	-756	-528	0.747	0.247	1.00	Yes	0.411	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.03**
		$U_{33} - L_{34}$	799.76	-----	-139	181	-315	257	366	103	-935	-656	0.729	0.262	1.00	Yes	0.401	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.95**
		$U_{34} - L_{35}$	726.93	-----	-128	143	-323	224	168	16	-873	-630	0.719	0.280	1.00	Yes	0.396	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.34**
		$U_{35} - L_{36}$	637.54	-----	-155	140	-307	198	186	42	-867	-521	0.691	0.300	1.00	Yes	0.380	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		$U_{36} - L_{37}$	439.01	-----	-81	80	-184	80	225	67	-729	-1304	0.560	0.431	1.00	Yes	0.352	0.250	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.44**
		$U_{33} - L_{37}$	-----	-326.44	60	-69	-67	-69	-291	-117	192	672	-----	-----	-----	-----	-----	-----	-----	-----	0.705	0.293	1	Yes	0.625	0.079	0.71	Yes	1.00	**8.66**
		$U_{39} - L_{38}$	378.92	-212.50	60	-66	-125	41	-365	-80	548	-90	0.682	0.318	1.00	Yes	0.375	0.175	0.55	Yes	0.506	0.316	0.83	Yes	0.450	0.159	0.61	Yes	1.00	**9.10**
		$U_{40} - L_{39}$	394.55	-39.65	3	-16	-140	90	-378	-100	156	40	0.710	0.288	1.00	Yes	0.390	0.158	0.55	Yes	0.095	0.169	0.27	Yes	0.084	0.178	0.27	Yes	1.00	**5.84**
		$U_{41} - L_{40}$	558.49	-----	-51	25	-178	125	-413	-181	6	6	0.744	0.249	1.00	Yes	0.409	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.14**
		$U_{42} - L_{41}$	623.93	-----	-112	83	-329	264	-409	-174	-28	38	0.738	0.260	1.00	Yes	0.406	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		$U_{43} - L_{42}$	768.50	-----	-125	94	-374	308	-388	-200	-92	82	0.760	0.232	1.00	Yes	0.418	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.39**
		$U_{44} - L_{43}$	791.55	-----	-153	146	-406	384	-167	22	55	59	0.783	0.214	1.00	Yes	0.431	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.81**
	Structure 3	$U_0 - L_1$	640.72	-----	-48	89	-357	290	-271	-83	716	419	0.694	0.300	1.00	Yes	0.382	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.82**
		$U_1 - L_2$	637.67	-----	-159	108	-339	243	162	-42	-804	-541	0.691	0.306	1.00	Yes	0.380	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.85**
		$U_2 - L_3$	563.94	-----	-125	86	-304	241	129	-28	-880	-622	0.667	0.332	1.00	Yes	0.367	0.182	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.15**
		$U_3 - L_4$	460.79	-----	-43	21	-133	73	150	-28	-670	-805	0.676	0.323	1.00	Yes	0.372	0.178	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.74**
		$U_4 - L_5$	119.12	-----	-14	-4	-89	27	187	3	-2300	-200	0.214	0.780	1.00	Yes	0.118	0.429	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.20**
		$U_5 - L_6$	-----	-214.30	23	-110	-27	-65	-1096	-422	-1008	-791	-----	-----	-----	-----	-----	-----	-----	-----	0.502	0.497	1	Yes	0.453	0.141	0.60	Yes	1.00	**6.92**
		$U_7 - L_6$	440.51	-----	-37	17	-96	43	-273	-54	152	-131	0.792	0.202	1.00	Yes	0.436	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.41**
		$U_8 - L_7$	616.35	-----	-84	79	-215	152	-273	-97	276	123	0.751	0.242	1.00	Yes	0.473	0.136	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.28**
		$U_8 - L_9$	824.85	-----	-71	96	-310	126	-219	7	110	247	0.816	0.181	1.00	Yes	0.449	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.74**
		$U_{10} - L_9$	958.46	-----	-47	149	-274	224	-103	92	176	425	0.810	0.182	1.00	Yes	0.501	0.103	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.45**
		$U_{11} - L_{10}$	932.61	-----	-82	106	-282	257	-540	-34	521	1002	0.746	0.253	1.00	Yes	0.462	0.144	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.36**
		$U_{12} - L_{11}$	982.39	-----	92	242	-58	325	528	41	-12	293	0.785	0.212	1.00	Yes	0.486	0.120	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.72**
		$U_{13} - L_{13}$	595.37	-----	22	171	-86	296	660	355	-264	-216	0.704	0.288	1.00	Yes	0.387	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.68**
		$U_{13} - L_{14}$	595.11	-----	-97	136	-278	214	724	322	-439	-560	0.704	0.290	1.00	Yes	0.387	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.26**
		$U_{14} - L_{15}$	460.72	-----	-26	163	-184	154	576	271	-1905	-472	0.545	0.450	1.00	Yes	0.300	0.248	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.90**
		$U_{15} - L_{16}$	444.33	-----	-5	96	-72	5	528	291	-1068	-968	0.652	0.346	1.00	Yes	0.358	0.190	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.37**
		$U_{17} - L_{16}$	-----	-345.65	56	-7	-41	-67	-246	6	247	-451	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.209	1	Yes	0.731	0.085	0.82	Yes	1.00	**10.23**
		$U_{18} - L_{17}$	229.48	-349.31	69	-43	-112	-11	-204	-65	283	-120	0.413	0.225	0.64	Yes	0.227	0.124	0.36	Yes	0.804	0.194	1	Yes	0.739	0.143	0.89	Yes	1.00	**13.67**
		$U_{19} - L_{18}$	460.62	-219.60	40	-30	-84	6	-207	-118	109	53	0.828	0.167	1.00	Yes	0.456	0.092	0.55	Yes	0.504	0.163	0.67	Yes	0.465	0.107	0.58	Yes	1.00	**11.75**
		$U_{20} - L_{19}$	636.55	-26.43	-21	-4	-122	68	-47	32	56	45	0.835	0.156	1.00	Yes	0.504	0.086	0.60	Yes	0.045	0.076	0.13	Yes	0.041	0.142	0.19	Yes	1.00	**7.93**

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Upper Chord	Structure 1	U$_1$ - U$_2$	-71.60	19.15	-53.99			0.90	1.00	17.23	-48.59	0.00	0.00	Vehicle	Vehicle	-----	-198.36	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	6.10	10.16
		U$_2$ - U$_3$	-90.76	38.61	-95.11			0.90	1.00	34.75	-85.60	0.00	0.00	Vehicle	Vehicle	-----	-303.44	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	3.33	5.54
		U$_3$ - U$_4$	-61.05	57.17	-119.47			0.90	1.00	51.45	-107.52	0.00	0.00	Vehicle	Vehicle	32.12	-312.32	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	8.54	14.23	2.81	4.69
		U$_4$ - U$_5$	10.82	74.66	-124.49			0.90	1.00	67.20	-112.04	0.00	0.00	Vehicle	Vehicle	159.65	-228.69	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	5.90	9.83	3.09	5.14
		U$_5$ - U$_6$	12.98	75.06	-123.96			0.90	1.00	67.55	-111.56	0.00	0.00	Vehicle	Vehicle	163.23	-224.84	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	5.85	9.74	3.11	5.18
		U$_6$ - U$_7$	121.44	6.79	-35.28			0.90	1.00	6.11	-31.75	0.00	0.00	Vehicle	Vehicle	171.11	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	53.98	89.97	-----	-----
		U$_7$ - U$_2$	249.52	95.39	-28.02			0.90	1.00	85.85	-25.22	0.00	0.00	Vehicle	Vehicle	510.39	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	3.88	6.46	-----	-----
		U$_2$ - U$_8$	376.85	127.37	0.00			0.90	1.00	114.64	0.00	0.00	0.00	Vehicle	Vehicle	738.28	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	3.84	6.40	-----	-----
		U$_8$ - U$_9$	319.70	6.35	42.76			0.90	1.00	38.48	5.72	0.00	0.00	Vehicle	Vehicle	498.98	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	9.65	16.09	-----	-----
		U$_9$ - U$_{10}$	128.80	75.05	-16.30			0.90	1.00	67.54	-14.67	0.00	0.00	Vehicle	Vehicle	313.78	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	-----	-----	42.67	-----	-----	10.67	-----	-----	5.16	8.59	-----	-----
		U$_{10}$ - U$_{11}$	-70.81	68.62	-78.70			0.90	1.00	61.76	-70.83	0.00	0.00	Vehicle	Vehicle	41.75	-245.53	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	7.58	12.63	4.46	7.43
		U$_{11}$ - U$_{12}$	-252.85	61.59	-136.53			0.90	1.00	55.43	-122.87	0.00	0.00	Vehicle	Vehicle	-----	-594.93	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	2.73	4.56
		U$_{12}$ - U$_{13}$	-391.81	53.31	-185.74			0.90	1.00	47.98	-167.16	0.00	0.00	Vehicle	Vehicle	-----	-871.53	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	44.61	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	2.68	4.46
		U$_{13}$ - U$_{14}$	-482.83	44.84	-219.83			0.90	1.00	40.36	-197.85	0.00	0.00	Vehicle	Vehicle	-----	-1056.35	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.73	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.56	4.27
		U$_{14}$ - U$_{15}$	-484.28	44.68	-219.96			0.90	1.00	40.21	-197.96	0.00	0.00	Vehicle	Vehicle	-----	-1058.49	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.69	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.56	4.26
		U$_{15}$ - U$_{16}$	-501.86	20.09	-207.32			0.90	1.00	18.08	-186.59	0.00	0.00	Vehicle	Vehicle	-----	-1056.69	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	43.73	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.66	4.43
		U$_{16}$ - U$_{17}$	-467.82	12.95	-154.24			0.90	1.00	11.65	-138.82	0.00	0.00	Vehicle	Vehicle	-----	-908.93	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.72	6.19
		U$_{17}$ - U$_{18}$	-368.70	-130.34	-36.76			0.90	1.00	-33.08	-117.30	0.00	0.00	Vehicle	Vehicle	-----	-733.47	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	44.92	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	3.08	5.13
		U$_{18}$ - U$_{19}$	-251.42	-79.55	7.65			0.90	1.00	6.88	-71.59	0.00	0.00	Vehicle	Vehicle	-----	-481.96	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	3.57	5.95
		U$_{19}$ - U$_{20}$	-117.77	-28.39	-16.66			0.90	1.00	-14.99	-25.55	0.00	0.00	Vehicle	Vehicle	-----	-208.46	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	13.14	21.90
	Structure 2	U$_1$ - U$_4$	-118.16	8.76	-46.39			0.90	1.00	7.88	-41.75	0.00	0.00	Vehicle	Vehicle	-----	-244.07	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	7.61	12.68
		U$_1$ - U$_5$	-239.45	20.07	-97.86			0.90	1.00	18.06	-88.07	0.00	0.00	Vehicle	Vehicle	-----	-502.10	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.76	6.27
		U$_5$ - U$_6$	-350.29	33.38	-148.96			0.90	1.00	30.04	-134.06	0.00	0.00	Vehicle	Vehicle	-----	-745.84	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.69	4.00	0.69	16.00	95.35	272.00	30.22	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.25	5.42
		U$_6$ - U$_4$	-448.96	31.53	-199.01			0.90	1.00	28.38	-179.11	0.00	0.00	Vehicle	Vehicle	-----	-971.72	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.99	4.98
		U$_5$ - U$_7$	-483.05	62.46	-236.32			0.90	1.00	59.25	-212.69	0.00	0.00	Vehicle	Vehicle	-----	-1088.78	15.50	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.83	4.72
		U$_6$ - U$_8$	-485.65	82.93	-264.90			0.90	1.00	74.63	-238.41	0.00	0.00	Vehicle	Vehicle	-----	-1147.88	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.33	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	2.52	4.20
		U$_7$ - U$_5$	-428.66	97.82	-270.01			0.90	1.00	88.04	-243.01	0.00	0.00	Vehicle	Vehicle	-----	-1083.78	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	43.32	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.25	3.76
		U$_7$ - U$_8$	-428.18	98.05	-269.73			0.90	1.00	88.24	-242.76	0.00	0.00	Vehicle	Vehicle	-----	-1082.61	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	43.35	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	2.26	3.76
		U$_8$ - U$_9$	-335.25	111.96	-241.10			0.90	1.00	100.77	-216.99	0.00	0.00	Vehicle	Vehicle	-----	-905.96	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	43.42	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	2.19	3.64
		U$_9$ - U$_{10}$	-200.15	120.62	-112.80			0.90	1.00	108.55	-101.52	0.00	0.00	Vehicle	Vehicle	-----	-480.15	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	4.05	6.76
		U$_{10}$ - U$_{11}$	-52.03	127.56	-133.70			0.90	1.00	114.80	-120.33	0.00	0.00	Vehicle	Vehicle	181.09	-328.35	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	5.03	8.39	3.58	5.96
		U$_{11}$ - U$_{12}$	107.09	62.25	-51.71			0.90	1.00	56.02	-46.54	0.00	0.00	Vehicle	Vehicle	260.59	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	8.61	14.34	-----	-----
		U$_{12}$ - U$_{13}$	259.37	124.99	-7.88			0.90	1.00	112.49	-7.09	0.00	0.00	Vehicle	Vehicle	580.91	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	4.69	7.82	-----	-----
		U$_{13}$ - U$_{14}$	391.99	177.13	0.00			0.90	1.00	159.42	0.00	0.00	0.00	Vehicle	Vehicle	854.99	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.41	7.35	-----	-----
		U$_{14}$ - U$_{15}$	439.40	2.52	186.59			0.90	1.00	167.93	-2.27	0.00	0.00	Vehicle	Vehicle	935.07	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.02	6.70	-----	-----
		U$_{15}$ - U$_{16}$	369.68	100.19	27.18			0.90	1.00	90.17	24.46	0.00	0.00	Vehicle	Vehicle	675.94	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	6.01	10.01	-----	-----
		U$_{16}$ - U$_{17}$	271.42	103.55	3.93			0.90	1.00	93.19	3.53	0.00	0.00	Vehicle	Vehicle	554.76	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	4.97	8.29	-----	-----
		U$_{17}$ - U$_{18}$	171.80	107.54	25.85			0.90	1.00	96.78	23.27	0.00	0.00	Vehicle	Vehicle	433.03	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	3.69	6.14	-----	-----
		U$_{18}$ - U$_{19}$	72.84	110.22	-93.72			0.90	1.00	99.19	-84.35	0.00	0.00	Vehicle	Vehicle	309.61	-88.07	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	4.19	6.99	5.12	8.54
		U$_{19}$ - U$_{20}$	-8.04	113.48	-140.07			0.90	1.00	102.13	-126.06	0.00	0.00	Vehicle	Vehicle	210.82	-283.59	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	4.87	8.11	3.26	5.43
		U$_{20}$ - U$_{21}$	-60.07	114.69	-177.01			0.90	1.00	103.22	-159.31	0.00	0.00	Vehicle	Vehicle	145.55	-423.27	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.11	10.19	2.93	4.88
		U$_{21}$ - U$_{22}$	-82.15	115.46	-200.71			0.90	1.00	103.91	-180.64	0.00	0.00	Vehicle	Vehicle	118.35	-498.19	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.20	10.33	2.51	4.18
		U$_{22}$ - U$_{23}$	-82.37	115.57	-200.74			0.90	1.00	104.01	-180.67	0.00	0.00	Vehicle	Vehicle	118.27	-498.53	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.20	10.33	2.51	4.18
		U$_{23}$ - U$_{24}$	-65.94	113.96	-86.07			0.90	1.00	102.56	-77.47	0.00	0.00	Vehicle	Vehicle	136.50	-253.56	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.19	10.31	5.97	9.95
		U$_{24}$ - U$_{25}$	-11.98	111.75	-103.97			0.90	1.00	100.57	-93.57	0.00	0.00	Vehicle	Vehicle	194.52	-226.11	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	5.00	8.33	4.33	7.21
		U$_{25}$ - U$_{26}$	59.90	75.14	-114.38			0.90	1.00	67.63	-102.94	0.00	0.00	Vehicle	Vehicle	224.40	-145.16	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	5.42	9.04	3.64	6.07
		U$_{26}$ - U$_{27}$	135.89	18.11	-22.43			0.90	1.00	16.30	-20.18	0.00	0.00	Vehicle	Vehicle	211.97	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	23.21	38.68	-----	-----
		U$_{27}$ - U$_{28}$	216.69	82.50	-13.56			0.90	1.00	74.25	-12.20	0.00	0.00	Vehicle	Vehicle	442.57	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	6.69	11.14	-----	-----
		U$_{28}$ - U$_{29}$	293.53	142.46	18.47			0.90	1.00	128.22	16.62	0.00	0.00	Vehicle	Vehicle	659.39	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	4.58	7.63	-----	-----
		U$_{29}$ - U$_{30}$	357.86	192.26	0.00			0.90	1.00	173.03	0.00	0.00	0.00	Vehicle	Vehicle	840.13	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.18	6.97	-----	-----
		U$_{30}$ - U$_{31}$	339.12	33.80	194.11			0.90	1.00	174.70	30.42	0.00	0.00	Vehicle	Vehicle	819.37	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.21	7.01	-----	-----
		U$_{31}$ - U$_{32}$	251.34	129.17	3.14			0.90	1.00	116.26	2.82	0.00	0.00	Vehicle	Vehicle	578.63	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Structure 1	L_0 - L_1	4.73	-3.19	-1.20			0.90	1.00	-1.08	-2.87	0.00	0.00	Vehicle	Vehicle	3.80	-0.08	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	-----	-----	89.50	149.17
	L_1 - L_2	74.19	-22.77	53.05			0.90	1.00	47.75	-20.49	0.00	0.00	Vehicle	Vehicle	199.90	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	5.38	8.97	-----	-----
	L_2 - L_3	97.64	-42.59	90.41			0.90	1.00	81.37	-38.33	0.00	0.00	Vehicle	Vehicle	303.22	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	4.21	7.02	-----	-----
	L_3 - L_4	66.79	-61.05	114.41			0.90	1.00	102.97	-54.95	0.00	0.00	Vehicle	Vehicle	309.91	-32.23	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	3.51	5.85	6.88	11.46
	L_4 - L_5	-108.59	-15.69	34.83			0.90	1.00	31.35	-14.12	0.00	0.00	Vehicle	Vehicle	-----	-171.75	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	16.65	27.75
	L_5 - L_6	-237.42	-76.55	24.88			0.90	1.00	22.39	-68.89	0.00	0.00	Vehicle	Vehicle	-----	-457.92	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	3.68	6.13
	L_6 - L_7	-362.38	-35.29	-105.00			0.90	1.00	-31.76	-94.50	0.00	0.00	Vehicle	Vehicle	-----	-675.84	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	3.70	6.16
	L_7 - L_8	478.62	-191.11	0.00			0.90	1.00	0.00	-172.00	0.00	0.00	Vehicle	Vehicle	-----	-994.88	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	42.88	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	2.51	4.19
	L_8 - L_9	-476.97	-26.41	-116.67			0.90	1.00	-23.77	-105.01	0.00	0.00	Vehicle	Vehicle	-----	-847.57	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	4.13	6.88
	L_9 - L_{10}	-301.47	-75.86	-62.68			0.90	1.00	-56.41	-68.27	0.00	0.00	Vehicle	Vehicle	-----	-539.83	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	5.66	9.43
	L_{10} - L_{11}	-104.56	-68.22	-11.54			0.90	1.00	-10.38	-61.40	0.00	0.00	Vehicle	Vehicle	-----	-268.95	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	3.87	6.45
	L_{11} - L_{12}	96.98	-61.50	51.42			0.90	1.00	46.27	-55.35	0.00	0.00	Vehicle	Vehicle	226.34	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	6.44	10.74	-----	-----
	L_{12} - L_{13}	268.60	-53.57	101.37			0.90	1.00	91.24	-48.21	0.00	0.00	Vehicle	Vehicle	546.86	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	4.64	7.74	-----	-----
	L_{13} - L_{14}	405.49	-45.33	150.31			0.90	1.00	135.28	-40.80	0.00	0.00	Vehicle	Vehicle	820.25	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	4.00	6.67	-----	-----
	L_{14} - L_{15}	502.59	-24.92	164.38			0.90	1.00	147.94	-22.43	0.00	0.00	Vehicle	Vehicle	973.92	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	4.35	7.25	-----	-----
	L_{15} - L_{16}	469.06	-20.70	136.38			0.90	1.00	122.74	-18.63	0.00	0.00	Vehicle	Vehicle	875.72	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	5.40	9.01	-----	-----
	L_{16} - L_{17}	365.26	80.97	-5.25			0.90	1.00	72.88	-4.72	0.00	0.00	Vehicle	Vehicle	632.73	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	7.01	11.68	-----	-----
	L_{17} - L_{18}	248.52	30.08	43.20			0.90	1.00	38.88	27.07	0.00	0.00	Vehicle	Vehicle	407.31	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	9.80	16.33	-----	-----
	L_{18} - L_{19}	112.87	-25.12	9.41			0.90	1.00	8.47	-22.61	0.00	0.00	Vehicle	Vehicle	165.08	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	27.61	46.02	-----	-----
	L_{19} - L_{20}	-14.36	-70.95	14.09			0.90	1.00	12.68	-63.85	0.00	0.00	Vehicle	Vehicle	8.80	-157.01	1.95	19.80	17.8500	653.40	131.71	10.8073	5.6265	17.41	32.71	-550.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	24.47	40.78	3.84	6.41
Structure 2	L_0 - L_1	15.25	-0.38	-10.39			0.90	1.00	-0.34	-9.35	0.00	0.00	Vehicle	Vehicle	19.08	-0.43	1.88	24.95	23.0700	823.35	131.71	10.8828	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	45.00	Pass	6.32	12.00	Pass	6.32	12.00	Pass	-----	-----	35.31	58.86
	L_1 - L_2	136.09	-9.49	37.43			0.90	1.00	33.69	-8.54	0.00	0.00	Vehicle	Vehicle	249.91	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	8.86	14.76	-----	-----
	L_2 - L_3	262.77	-19.36	79.26			0.90	1.00	71.33	-17.42	0.00	0.00	Vehicle	Vehicle	496.15	-----	6.20	37.95	31.7500	1252.35	131.71	10.7370	6.1375	15.74	32.76	-1056.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	5.89	9.82	-----	-----
	L_3 - L_4	373.14	-21.68	130.38			0.90	1.00	117.34	-19.51	0.00	0.00	Vehicle	Vehicle	739.32	-----	9.45	51.08	41.6250	1685.48	131.71	10.7370	5.7282	16.87	32.73	-1420.90	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	4.72	7.87	-----	-----
	L_4 - L_5	456.57	-84.84	178.18			0.90	1.00	160.36	-43.99	0.00	0.00	Vehicle	Vehicle	940.98	-----	11.08	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.90	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	4.47	7.44	-----	-----
	L_5 - L_6	489.37	-65.11	215.32			0.90	1.00	193.79	-58.60	0.00	0.00	Vehicle	Vehicle	1056.06	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	4.04	6.73	-----	-----
	L_6 - L_7	479.01	-82.23	242.57			0.90	1.00	218.31	-74.00	0.00	0.00	Vehicle	Vehicle	1095.71	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	3.68	6.13	-----	-----
	L_7 - L_8	330.07	-110.67	219.32			0.90	1.00	197.39	-99.60	0.00	0.00	Vehicle	Vehicle	856.77	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	3.07	5.12	-----	-----
	L_8 - L_9	188.98	-119.56	106.31			0.90	1.00	95.68	-107.61	0.00	0.00	Vehicle	Vehicle	452.98	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	5.71	9.52	-----	-----
	L_9 - L_{10}	39.77	-126.66	83.10			0.90	1.00	74.79	-113.99	0.00	0.00	Vehicle	Vehicle	213.76	-195.28	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	6.59	10.99	4.04	6.73
	L_{10} - L_{11}	-127.39	-89.32	0.00			0.90	1.00	0.00	-80.38	0.00	0.00	Vehicle	Vehicle	-----	-339.76	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.76	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	3.91	6.51
	L_{11} - L_{12}	-282.64	-153.54	27.91			0.90	1.00	25.12	-138.18	0.00	0.00	Vehicle	Vehicle	-----	-666.83	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	2.81	4.69
	L_{12} - L_{13}	-426.73	5.27	-211.75			0.90	1.00	4.74	-190.58	0.00	0.00	Vehicle	Vehicle	-----	-967.67	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	44.73	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	2.67	4.45
	L_{13} - L_{14}	-536.42	-254.54	0.00			0.90	1.00	0.00	-229.09	0.00	0.00	Vehicle	Vehicle	-----	-1193.71	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.91	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	2.56	4.27
	L_{14} - L_{15}	-537.75	-45.90	-256.59			0.90	1.00	-41.31	-230.93	0.00	0.00	Vehicle	Vehicle	-----	-1199.43	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.81	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	2.54	4.23
	L_{15} - L_{16}	-475.65	-24.76	-66.72			0.90	1.00	-22.29	-60.05	0.00	0.00	Vehicle	Vehicle	-----	-748.45	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	7.99	13.32
	L_{16} - L_{17}	-384.35	-85.62	-82.47			0.90	1.00	-74.22	-77.06	0.00	0.00	Vehicle	Vehicle	-----	-666.61	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	5.16	8.61
	L_{17} - L_{18}	-281.86	-88.84	-36.21			0.90	1.00	-32.59	-79.95	0.00	0.00	Vehicle	Vehicle	-----	-539.64	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	3.34	5.57
	L_{18} - L_{19}	-175.17	-84.00	3.76			0.90	1.00	3.38	-75.60	0.00	0.00	Vehicle	Vehicle	-----	-391.52	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	3.16	5.27
	L_{19} - L_{20}	-76.53	-86.56	53.87			0.90	1.00	48.48	-77.90	0.00	0.00	Vehicle	Vehicle	5.54	-268.28	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	9.35	15.59	3.83	6.38
	L_{20} - L_{21}	4.38	-81.76	90.61			0.90	1.00	81.55	-73.58	0.00	0.00	Vehicle	Vehicle	182.39	-153.74	6.13	37.50	31.3700	1237.50	131.71	10.6250	6.1479	15.55	32.77	-1044.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	6.97	11.62	6.59	10.98
	L_{21} - L_{22}	55.94	-82.85	127.47			0.90	1.00	114.72	-74.56	0.00	0.00	Vehicle	Vehicle	321.28	-88.82	6.75	37.50	30.7500	1237.50	131.71	10.6224	6.1479	15.55	32.77	-1044.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	4.69	7.81	6.92	11.53
	L_{22} - L_{23}	62.99	-73.72	126.76			0.90	1.00	114.06	-66.35	0.00	0.00	Vehicle	Vehicle	329.07	-61.87	6.75	37.50	30.7500	1237.50	131.71	10.6224	6.1479	15.55	32.77	-1044.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	4.68	7.79	7.84	13.06
	L_{23} - L_{24}	15.54	-71.36	81.80			0.90	1.00	73.62	-64.22	0.00	0.00	Vehicle	Vehicle	179.71	-118.95	6.13	37.50	31.3700	1237.50	131.71	10.6250	6.1479	15.55	32.77	-1044.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	7.63	12.72	7.65	12.75
	L_{24} - L_{25}	-56.00	-59.21	31.71			0.90	1.00	28.54	-53.29	0.00	0.00	Vehicle	Vehicle	-----	-188.26	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	5.83	9.71
	L_{25} - L_{26}	-136.37	-54.58	42.19			0.90	1.00	37.97	-49.12	0.00	0.00	Vehicle	Vehicle	-----	-283.72	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	5.34	8.90
	L_{26} - L_{27}	-217.73	-119.93	0.00			0.90	1.00	0.00	-107.93	0.00	0.00	Vehicle	Vehicle	-----	-516.90	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	2.83	4.72
	L_{27} - L_{28}	-296.25	-181.23	9.81			0.90	1.00	8.83	-163.10	0.00	0.00	Vehicle	Vehicle	-----	-738.52	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	2.76	4.61
	L_{28} - L_{29}	-364.18	-10.18	-240.34			0.90	1.00	-9.16	-216.30	0.00	0.00	Vehicle	Vehicle	-----	-942.09	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	2.53	4.21
	L_{29} - L_{30}	-418.23	-279.87	0.00			0.90	1.00	0.00	-251.88	0.00	0.00	Vehicle	Vehicle	-----	-1089.44	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	2.61	4.36
	L_{30} - L_{31}	-350.38	0.00	-237.99			0.90	1.00	0.00	-214.19	0.00	0.00	Vehicle	Vehicle	-----	-919.56	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.82	32.70	-1969.16	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	3.26	5.44
	L_{31} - L_{32}	-275.46	-61.85	-79.71			0.90	1.00	-55.67	-71.74	0.00	0.00	Vehicle	Vehicle	-----	-513.53	9.73	59.10	49.3700	1950.30	131.71	11.1432	5.8186	17.24	32.72	-1643.56	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Verticals	Structure 1																																													
	U_0 - L_0	-77.19	-56.85	19.18			0.90	1.00	17.26	-51.16	0.00	0.00	Vehicle	Vehicle	------	-211.20	1.63	15.26	13.6300	503.58	131.71	9.3438	1.9120	43.98	31.16	-404.18	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	------	------	------	2.74	4.57
	U_0 - L_1	-33.88	-47.99	17.17			0.90	1.00	15.45	-43.19	0.00	0.00	Vehicle	Vehicle	------	-137.62	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	------	------	------	4.42	7.37
	U_1 - L_2	10.43	-35.33	16.07			0.90	1.00	14.47	-31.80	0.00	0.00	Vehicle	Vehicle	44.90	-55.33	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	------	17.31	28.85	6.84	11.40
	U_2 - L_3	44.39	-22.47	15.93			0.90	1.00	14.34	-20.22	0.00	0.00	Vehicle	Vehicle	88.77	------	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	------	16.04	26.74	------	------
	U_3 - L_4	-16.67	0.00	-56.07			0.90	1.00	0.00	-50.46	0.00	0.00	Vehicle	Vehicle	------	-131.00	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	------	------	------	3.96	6.60
	U_4 - L_5	-109.51	2.48	-72.68			0.90	1.00	-2.23	-65.41	0.00	0.00	Vehicle	Vehicle	------	-284.08	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	------	------	16.16	------	------	33.25	45.00	Pass	5.37	12.00	Pass	------	------	------	------	------	------	------	------	2.90	4.83
	U_5 - L_6	-143.60	-0.99	-80.67			0.90	1.00	-0.89	-72.60	0.00	0.00	Vehicle	Vehicle	------	-343.99	3.13	23.61	20.4794	779.11	131.71	9.9479	2.0237	44.24	31.14	-624.88	16.00	0.44	10.00	0.56	------	------	16.00	------	------	36.57	45.00	Pass	8.89	12.00	Pass	------	------	------	------	------	------	------	------	2.79	4.64
	U_6 - L_7	-142.61	1.97	-82.96			0.90	1.00	1.77	-74.67	0.00	0.00	Vehicle	Vehicle	------	-347.17	2.88	21.86	18.9794	721.36	131.71	11.7292	1.9657	53.70	30.26	-562.19	16.25	0.44	10.00	0.50	------	------	16.25	------	------	37.14	45.00	Pass	10.00	12.00	Pass	------	------	------	------	------	------	------	------	2.33	3.88
	U_7 - L_8	-391.97	-75.82	-96.16			0.90	1.00	-68.24	-86.54	0.00	0.00	Vehicle	Vehicle	------	-697.07	3.28	51.42	48.1423	1696.94	131.71	16.6563	4.0363	37.14	31.69	-1385.05	15.25	0.82	15.64	1.31	------	------	15.25	------	------	18.60	45.00	Pass	5.96	12.00	Pass	------	------	------	------	------	------	------	------	4.67	7.78
	U_8 - L_9	-223.13	-87.69	7.87			0.90	1.00	7.08	-78.92	0.00	0.00	Vehicle	Vehicle	------	-461.06	3.50	30.81	27.3125	1016.81	131.71	12.1563	2.5246	43.34	31.21	-817.50	16.25	0.50	12.00	0.63	------	------	16.25	------	------	32.50	45.00	Pass	9.60	12.00	Pass	------	------	------	------	------	------	------	------	3.08	5.14
	U_9 - L_{10}	-225.77	-83.53	6.10			0.90	1.00	5.49	-75.18	0.00	0.00	Vehicle	Vehicle	------	-456.39	2.76	34.69	31.9300	1144.77	131.71	10.7083	2.3304	41.36	31.37	-925.09	16.16	0.83	11.50	0.80	------	------	16.16	------	------	19.50	45.00	Pass	7.23	12.00	Pass	------	------	------	------	------	------	------	------	3.88	6.46
	U_{10} - L_{11}	-198.79	-86.81	4.27			0.90	1.00	3.85	-78.13	0.00	0.00	Vehicle	Vehicle	------	-427.70	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	------	------	------	3.40	5.66
	U_{11} - L_{12}	-154.77	-77.40	1.63			0.90	1.00	1.46	-69.66	0.00	0.00	Vehicle	Vehicle	------	-352.12	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	------	------	16.25	------	------	32.50	45.00	Pass	8.89	12.00	Pass	------	------	------	------	------	------	------	------	3.25	5.42
	U_{12} - L_{13}	-109.04	-65.86	0.00			0.90	1.00	0.00	-59.27	0.00	0.00	Vehicle	Vehicle	------	-270.18	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	------	------	------	------	2.75	4.58
	U_{13} - L_{14}	-12.30	-51.88	0.00			0.90	1.00	0.00	-46.69	0.00	0.00	Vehicle	Vehicle	------	-117.15	0.00	16.85	16.8486	556.00	131.71	9.2805	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	------	4.27	7.12	
	U_{14} - L_{15}	-5.62	11.47	-34.03			0.90	1.00	10.32	-30.63	0.00	0.00	Vehicle	Vehicle	15.06	-73.66	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	------	25.19	41.98	6.61	11.02
	U_{15} - L_{16}	-51.74	11.41	-54.24			0.90	1.00	10.27	-48.82	0.00	0.00	Vehicle	Vehicle	------	-173.03	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	------	------	------	3.56	5.93
	U_{17} - L_{17}	-127.31	11.85	-75.20			0.90	1.00	10.66	-67.68	0.00	0.00	Vehicle	Vehicle	------	-312.13	0.00	20.66	20.6644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	------	------	16.16	------	------	33.25	45.00	Pass	5.37	12.00	Pass	------	------	------	------	------	------	------	------	2.52	4.20
	U_{18} - L_{18}	-159.89	10.90	-83.74			0.90	1.00	9.81	-75.36	0.00	0.00	Vehicle	Vehicle	------	-371.14	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	------	------	16.16	------	------	32.06	45.00	Pass	7.23	12.00	Pass	------	------	------	------	------	------	------	------	2.91	4.85
	U_{19} - L_{19}	-191.17	9.21	-85.58			0.90	1.00	8.29	-77.02	0.00	0.00	Vehicle	Vehicle	------	-415.40	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	------	------	------	3.31	5.52
	U_{20} - L_{20}	-211.94	9.19	-98.28			0.90	1.00	8.27	-88.45	0.00	0.00	Vehicle	Vehicle	------	-467.17	0.00	29.13	29.1305	961.31	131.71	20.3229	2.8884	63.32	29.19	-722.67	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	------	------	------	2.33	3.89
	Structure 2																																													
	U_0 - L_0	-206.53	-88.90	16.29			0.90	1.00	14.66	-80.01	0.00	0.00	Vehicle	Vehicle	------	-441.85	0.00	31.81	31.8100	1049.73	131.71	19.1510	2.8323	60.85	29.48	-797.03	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	------	------	------	3.05	5.08
	U_1 - L_1	-188.72	-85.87	16.71			0.90	1.00	15.04	-77.28	0.00	0.00	Vehicle	Vehicle	------	-412.79	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	------	------	------	3.76	6.26
	U_2 - L_2	-155.84	-79.86	17.52			0.90	1.00	15.76	-71.88	0.00	0.00	Vehicle	Vehicle	------	-358.33	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	------	------	------	3.49	5.82
	U_3 - L_3	-134.53	-75.68	19.75			0.90	1.00	17.77	-68.11	0.00	0.00	Vehicle	Vehicle	------	-322.45	0.00	22.73	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	------	------	16.32	------	------	30.85	45.00	Pass	4.91	12.00	Pass	------	------	------	------	------	------	------	------	2.80	4.66
	U_4 - L_4	-64.47	-57.70	18.69			0.90	1.00	16.82	-51.93	0.00	0.00	Vehicle	Vehicle	------	-196.31	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	------	------	------	3.17	5.29
	U_5 - L_5	-19.94	-49.00	20.21			0.90	1.00	18.19	-44.10	0.00	0.00	Vehicle	Vehicle	13.49	-121.47	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	------	14.77	24.61	4.36	7.27
	U_6 - L_6	40.07	-25.60	16.68			0.90	1.00	15.01	-23.04	0.00	0.00	Vehicle	Vehicle	84.61	------	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	------	------	6.56	------	------	------	------	------	------	------	------	------	15.50	25.83	------	------
	U_7 - L_7	-26.03	0.00	-13.03			0.90	1.00	0.00	-11.73	0.00	0.00	Vehicle	Vehicle	------	-59.25	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	------	------	------	16.09	26.82
	U_8 - L_8	-125.22	0.00	-55.19			0.90	1.00	0.00	-49.67	0.00	0.00	Vehicle	Vehicle	------	-270.41	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	------	------	15.75	------	------	36.00	45.00	Pass	8.89	12.00	Pass	------	------	------	------	------	------	------	------	4.90	8.16
	U_9 - L_9	-174.50	0.00	-85.45			0.90	1.00	0.00	-76.90	0.00	0.00	Vehicle	Vehicle	------	-393.46	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	------	------	------	4.03	6.72
	U_{10} - L_{10}	-202.62	-1.95	-96.19			0.90	1.00	-1.76	-86.57	0.00	0.00	Vehicle	Vehicle	------	-450.97	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	------	------	16.48	------	------	20.31	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	------	------	------	3.99	6.65
	U_{11} - L_{11}	-229.48	2.75	-109.57			0.90	1.00	2.48	-98.61	0.00	0.00	Vehicle	Vehicle	------	-511.98	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	------	------	16.48	------	------	20.31	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	------	------	------	3.26	5.43
	U_{12} - L_{12}	-250.80	3.84	-116.98			0.90	1.00	3.46	-105.28	0.00	0.00	Vehicle	Vehicle	------	-554.14	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	------	------	16.48	------	------	18.26	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	------	------	------	3.14	5.23
	U_{13} - L_{13}	-223.27	16.47	-107.36			0.90	1.00	14.83	-96.62	0.00	0.00	Vehicle	Vehicle	------	-499.61	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	------	------	16.32	------	------	20.13	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	------	------	------	2.90	4.83
	U_{14} - L_{14}	-343.24	40.15	-105.25			0.90	1.00	-36.13	-94.73	0.00	0.00	Vehicle	Vehicle	------	-651.46	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0516	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	------	------	15.38	------	------	18.31	45.00	Pass	5.68	12.00	Pass	------	------	------	------	------	------	------	------	4.49	7.48
	U_{15} - L_{15}	-123.12	-82.67	20.61			0.90	1.00	18.54	-74.41	0.00	0.00	Vehicle	Vehicle	------	-321.26	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	------	------	------	4.57	7.62
	U_{16} - L_{16}	-156.68	-106.71	18.04			0.90	1.00	16.23	-96.04	0.00	0.00	Vehicle	Vehicle	------	-411.76	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	------	------	------	3.18	5.30
	U_{17} - L_{17}	-147.89	-107.25	16.05			0.90	1.00	14.44	-96.52	0.00	0.00	Vehicle	Vehicle	------	-401.39	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	------	------	------	2.96	4.93
	U_{18} - L_{18}	-142.21	-112.01	8.84			0.90	1.00	7.96	-100.81	0.00	0.00	Vehicle	Vehicle	------	-403.29	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	------	------	------	2.59	4.32
	U_{19} - L_{19}	-111.47	-72.81	8.91			0.90	1.00	8.02	-65.53	0.00	0.00	Vehicle	Vehicle	------	-286.89	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	------	------	15.75	------	------	31.50	45.00	Pass	10.00	12.00	Pass	------	------	------	------	------	------	------	------	3.66	6.10
	U_{20} - L_{20}	-76.56	-60.11	4.67			0.90	1.00	4.20	-54.10	0.00	0.00	Vehicle	Vehicle	------	-216.74	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	------	------	------	------	3.31	5.52
	U_{21} - L_{21}	-44.33	-48.16	0.63			0.90	1.00	0.57	-43.34	0.00	0.00	Vehicle	Vehicle	------	-151.54	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	------	------	------	4.10	6.83
	U_{22} - L_{22}	-21.25	-12.28	-12.73			0.90	1.00	-11.05	-11.45	0.00	0.00	Vehicle	Vehicle	------	-52.44	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	------	------	------	16.79	27.99
	U_{23} - L_{23}	-39.04	2.21	-38.08			0.90	1.00	1.99	-34.27	0.00	0.00	Vehicle	Vehicle	------	-125.00	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	------	------	15.86	------	------	38.97	45.00	Pass	6.56	12.00	Pass	------	------	------	------	------	------	------	------	5.28	8.80
	U_{24} - L_{24}	-74.80	2.16	-60.42			0.90	1.00	2.16	-54.38	0.00	0.00	Vehicle	Vehicle	------	-215.06	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	------	------	16.00	------	------	36.12	45.00	Pass	5.94	12.00	Pass	------	------	------	------	------	------	------	------	3.31	5.52
	U_{25} - L_{25}	-103.21	6.10	-76.61			0.90	1.00	5.49	-68.95	0.00	0.00	Vehicle	Vehicle	------	-283.57	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	------	------	15.75	------	------	31.50	45.00	Pass	10.00	12.00	Pass	------	------	------	------	------	------	------	------	3.55	5.92
	U_{26} - L_{26}	-120.15	6.18	-111.76			0.90	1.00	5.56	-100.59	0.00	0.00	Vehicle	Vehicle	------	-374.13	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	------	------	------	2.73	4.54
	U_{27} - L_{27}	-123.87	10.40	-110.79			0.90	1.00	9.36	-99.71	0.00	0.00	Vehicle	Vehicle	------	-377.06	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	------	------	16.48	------	------	28.22	45.00	Pass	6.06	12.00	Pass	------	------	------	------	------	------	------	------	3.01	5.01
	U_{28} - L_{28}	-135.49	11.07	-122.46			0.90	1.00	9.97	-110.22	0.00	0.00	Vehicle	Vehicle	------	-414.94	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	------	------	16.64	------	------	26.37	45.00	Pass	5.62	12.00	Pass	------	------	------	------	------	------	------	------	2.89	4.81
	U_{29} - L_{29}	-116.90	13.26	-99.01			0.90	1.00	11.94	-89.11	0.00	0.00	Vehicle	Vehicle	------	-345.03	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	------	------	16.32	------	------	30.50	45.00	Pass	6.59	12.00	Pass	------	------	------	------	------	------	------	------	3.86	6.43
	U_{30} - L_{30}	-261.40	-56.32	-83.46			0.90	1.00	-50.69	-75.11	0.00	0.00	Vehicle	Vehicle	------	-502.56	11.02	52.76	41.7400	1741.08	131.71

Maximum Axial with Moment Interaction Check

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Location	Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
North Truss - Diagonals Structure 1	U_1 - L_1	87.39	74.42	-26.80			0.90	1.00	66.98	-24.12	0.00	0.00	Vehicle	Vehicle	258.73	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	**4.47**	**7.45**	-----	-----
	U_1 - L_2	23.29	57.70	-26.63			0.90	1.00	51.93	-23.96	0.00	0.00	Vehicle	Vehicle	142.80	-21.64	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**4.67**	**7.79**	**8.98**	**14.97**
	U_2 - L_3	-37.87	37.46	-4.62			0.90	1.00	33.72	-4.16	0.00	0.00	Vehicle	Vehicle	23.83	-58.24	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**8.28**	**13.81**	**42.75**	**71.25**
	U_3 - L_4	-92.23	-24.70	11.55			0.90	1.00	10.40	-22.23	0.00	0.00	Vehicle	Vehicle	-----	-168.06	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**6.59**	**10.98**
	U_3 - L_4	143.29	16.69	71.49			0.90	1.00	64.34	15.02	0.00	0.00	Vehicle	Vehicle	325.68	-----	0.00	20.48	20.4800	675.84	131.71	11.6953	2.0102	52.36	30.39	-529.06	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**3.51**	**5.85**	-----	-----
	U_4 - L_5	177.89	97.52	0.00			0.90	1.00	87.77	0.00	0.00	0.00	Vehicle	Vehicle	421.42	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.23**	**5.39**	-----	-----
	U_5 - L_6	184.40	100.38	0.00			0.90	1.00	90.34	0.00	0.00	0.00	Vehicle	Vehicle	435.46	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.10**	**5.16**	-----	-----
	U_6 - L_7	179.98	88.74	0.00			0.90	1.00	79.86	0.00	0.00	0.00	Vehicle	Vehicle	407.02	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.54**	**5.89**	-----	-----
	U_8 - L_9	268.90	92.34	-9.47			0.90	1.00	83.11	-8.53	0.00	0.00	Vehicle	Vehicle	529.64	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.01**	**8.34**	-----	-----
	U_9 - L_{10}	278.76	101.27	-10.28			0.90	1.00	91.14	-9.26	0.00	0.00	Vehicle	Vehicle	559.87	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**4.50**	**7.50**	-----	-----
	U_{10} - L_{11}	284.98	109.41	0.00			0.90	1.00	98.47	0.00	0.00	0.00	Vehicle	Vehicle	583.81	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**3.81**	**6.35**	-----	-----
	U_{11} - L_{12}	250.55	101.45	0.00			0.90	1.00	91.30	0.00	0.00	0.00	Vehicle	Vehicle	523.53	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.46**	**5.77**	-----	-----
	U_{12} - L_{13}	189.62	92.57	0.00			0.90	1.00	83.31	0.00	0.00	0.00	Vehicle	Vehicle	427.01	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**3.18**	**5.30**	-----	-----
	U_{13} - L_{14}	123.30	69.91	0.00			0.90	1.00	62.92	0.00	0.00	0.00	Vehicle	Vehicle	296.61	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**2.90**	**4.84**	-----	-----
	U_{14} - L_{14}	-24.40	0.00	7.27			0.90	1.00	6.54	0.00	0.00	0.00	Vehicle	Vehicle	-----	-31.72	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	-----	-----
	U_{15} - L_{15}	48.54	48.13	-15.57			0.90	1.00	43.32	-14.01	0.00	0.00	Vehicle	Vehicle	156.95	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.25**	**8.75**	-----	-----
	U_{15} - L_{16}	146.57	83.10	-16.25			0.90	1.00	74.79	-14.63	0.00	0.00	Vehicle	Vehicle	352.59	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**3.03**	**5.05**	-----	-----
	U_{16} - L_{17}	182.43	88.95	-13.96			0.90	1.00	80.05	-12.56	0.00	0.00	Vehicle	Vehicle	410.61	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.51**	**5.85**	-----	-----
	U_{18} - L_{18}	223.79	93.81	-11.70			0.90	1.00	84.43	-10.53	0.00	0.00	Vehicle	Vehicle	473.86	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.46**	**5.76**	-----	-----
	U_{20} - L_{19}	232.63	90.05	-9.73			0.90	1.00	81.05	-8.75	0.00	0.00	Vehicle	Vehicle	478.03	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.54**	**5.89**	-----	-----
	U_0 - L_1	213.47	88.99	-17.36			0.90	1.00	80.09	-15.63	0.00	0.00	Vehicle	Vehicle	451.04	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.23**	**7.04**	-----	-----
	U_1 - L_2	200.39	91.11	-20.35			0.90	1.00	82.00	-18.32	0.00	0.00	Vehicle	Vehicle	438.18	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.22**	**7.04**	-----	-----
	U_1 - L_3	172.76	86.50	-22.57			0.90	1.00	77.85	-20.32	0.00	0.00	Vehicle	Vehicle	393.27	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.68**	**6.14**	-----	-----
	U_3 - L_4	147.11	83.07	-26.41			0.90	1.00	74.77	-23.77	0.00	0.00	Vehicle	Vehicle	353.24	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**3.45**	**5.75**	-----	-----
	U_3 - L_5	49.07	62.99	-25.97			0.90	1.00	56.67	-23.37	0.00	0.00	Vehicle	Vehicle	186.62	-----	0.00	16.85	16.8486	556.00	131.71	15.3956	1.9682	78.23	29.41	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.01**	**6.68**	-----	-----
	U_5 - L_6	2.97	50.87	-27.01			0.90	1.00	45.78	-24.31	0.00	0.00	Vehicle	Vehicle	103.05	-48.81	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**5.57**	**9.28**	**8.11**	**13.52**
	U_5 - L_7	-85.72	0.00	-28.28			0.90	1.00	0.00	-25.45	0.00	0.00	Vehicle	Vehicle	-----	-166.57	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	**6.45**	**10.75**
	U_7 - L_7	140.27	44.08	3.94			0.90	1.00	39.67	3.54	0.00	0.00	Vehicle	Vehicle	268.30	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**7.00**	**11.67**	-----	-----
	U_8 - L_8	204.17	86.51	0.00			0.90	1.00	77.86	0.00	0.00	0.00	Vehicle	Vehicle	434.12	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.90**	**6.50**	-----	-----
	U_{10} - L_9	234.82	103.61	0.00			0.90	1.00	93.25	0.00	0.00	0.00	Vehicle	Vehicle	507.31	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.49**	**5.82**	-----	-----
	U_{11} - L_{10}	263.04	120.13	0.00			0.90	1.00	108.12	0.00	0.00	0.00	Vehicle	Vehicle	576.20	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.23**	**5.38**	-----	-----
	U_{11} - L_{11}	273.97	127.45	0.00			0.90	1.00	114.70	0.00	0.00	0.00	Vehicle	Vehicle	604.68	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**2.98**	**4.97**	-----	-----
	U_{13} - L_{12}	254.88	117.68	-16.79			0.90	1.00	105.91	-15.11	0.00	0.00	Vehicle	Vehicle	560.81	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**2.96**	**4.94**	-----	-----
	U_{13} - L_{13}	217.66	93.52	-20.93			0.90	1.00	84.16	-18.83	0.00	0.00	Vehicle	Vehicle	465.31	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.99**	**6.65**	-----	-----
	U_{15} - L_{15}	110.03	66.39	-21.17			0.90	1.00	59.75	-19.05	0.00	0.00	Vehicle	Vehicle	272.50	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.43**	**9.05**	-----	-----
	U_{15} - L_{16}	132.26	87.23	-23.16			0.90	1.00	78.51	-20.84	0.00	0.00	Vehicle	Vehicle	342.04	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.96**	**6.60**	-----	-----
	U_{17} - L_{17}	172.87	112.69	-17.68			0.90	1.00	101.42	-15.91	0.00	0.00	Vehicle	Vehicle	444.47	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.18**	**5.30**	-----	-----
	U_{17} - L_{18}	160.16	114.64	-18.52			0.90	1.00	103.18	-16.66	0.00	0.00	Vehicle	Vehicle	431.76	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**2.85**	**4.75**	-----	-----
	U_{19} - L_{19}	152.33	71.58	-12.19			0.90	1.00	64.42	-10.97	0.00	0.00	Vehicle	Vehicle	337.61	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.64**	**7.73**	-----	-----
	U_{20} - L_{20}	120.67	78.59	-12.44			0.90	1.00	70.73	-11.19	0.00	0.00	Vehicle	Vehicle	310.11	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**4.09**	**6.82**	-----	-----
	U_{20} - L_{21}	76.10	64.52	-6.01			0.90	1.00	58.07	-5.41	0.00	0.00	Vehicle	Vehicle	224.75	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**3.63**	**6.05**	-----	-----
	U_{21} - L_{22}	31.50	29.66	-5.13			0.90	1.00	26.69	-4.61	0.00	0.00	Vehicle	Vehicle	98.78	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.91**	**14.84**	-----	-----
	U_{22} - L_{22}	24.27	25.24	-12.35			0.90	1.00	22.72	-11.12	0.00	0.00	Vehicle	Vehicle	80.76	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**10.66**	**17.76**	-----	-----
	U_{23} - L_{23}	72.21	53.28	-3.89			0.90	1.00	47.95	-3.50	0.00	0.00	Vehicle	Vehicle	197.78	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.35	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.45**	**7.41**	-----	-----
	U_{24} - L_{24}	112.05	82.48	4.58			0.90	1.00	74.23	4.12	0.00	0.00	Vehicle	Vehicle	306.51	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**3.97**	**6.62**	-----	-----
	U_{25} - L_{25}	127.76	92.93	0.00			0.90	1.00	83.64	0.00	0.00	0.00	Vehicle	Vehicle	347.31	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.75**	**6.25**	-----	-----
	U_{26} - L_{26}	132.58	119.91	-12.66			0.90	1.00	107.92	-11.39	0.00	0.00	Vehicle	Vehicle	406.19	-----	0.00	25.63	25.6315	845.84	131.71	16.1016	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**2.88**	**4.80**	-----	-----
	U_{26} - L_{27}	137.86	120.19	-12.20			0.90	1.00	108.17	-10.98	0.00	0.00	Vehicle	Vehicle	413.59	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.17**	**5.29**	-----	-----
	U_{28} - L_{28}	122.74	107.70	-13.56			0.90	1.00	96.93	-12.20	0.00	0.00	Vehicle	Vehicle	369.57	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.27**	**5.45**	-----	-----
	U_{29} - L_{29}	102.60	84.66	-15.32			0.90	1.00	76.20	-13.78	0.00	0.00	Vehicle	Vehicle	298.47	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.32**	**7.19**	-----	-----
	U_{30} - L_{31}	139.84	77.77	-18.97			0.90	1.00	69.99	-17.07	0.00	0.00	Vehicle	Vehicle	333.43	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.47**	**9.11**	-----	-----
	U_{31} - L_{32}	166.63	101.52	-20.54			0.90	1.00	91.37	-18.48	0.00	0.00	Vehicle	Vehicle	414.58	-----	0.00	29.18	29.1800	962.94	131.71	17.8750	2.8156	57.14	29.89	-741.48	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.77**	**6.28**	-----	-----
	U_{32} - L_{33}	202.12	124.78	-11.07			0.90	1.00	112.30	-9.96	0.00	0.00	Vehicle	Vehicle	506.09	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.43**	**5.72**	-----	-----
	U_{33} - L_{34}	201.72	77.93	-6.61			0.90	1.00	70.14	-5.95	0.00	0.00	Vehicle	Vehicle	414.19	-----	0.00	33.27	33.2657	1097.77	131.71	14.5729	2.8573	45.90	31.00	-876.43	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**5.50**	**9.16**	-----	-----
	U_{35} - L_{35}	180.72	98.79	0.00			0.90	1.00	88.91	0.00	0.00	0.00	Vehicle	Vehicle	427.58	-----	0.00	30.63	30.6305	1010.81	131.71	13.7604	2.8427	43.57	31.19	-812.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capicity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Upper Chord	Structure 1	U$_0$ - U$_1$	-52.70	15.23	-45.43			0.75	1.00	11.42	-34.07	0.00	0.00	Vehicle	Vehicle	-----	-142.33	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	9.03	15.05
		U$_1$ - U$_2$	-61.66	35.44	-83.22			0.75	1.00	26.58	-62.41	0.00	0.00	Vehicle	Vehicle	-----	-215.38	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	4.84	8.07
		U$_2$ - U$_3$	-27.05	49.50	-95.22			0.75	1.00	37.13	-71.42	0.00	0.00	Vehicle	Vehicle	45.28	-189.90	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	11.28	18.80	4.52	7.54
		U$_3$ - U$_4$	32.90	62.93	-114.16			0.75	1.00	47.20	-85.62	0.00	0.00	Vehicle	Vehicle	145.04	-142.74	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	8.11	13.52	4.19	6.99
		U$_4$ - U$_5$	34.76	61.16	-99.83			0.75	1.00	45.87	-74.87	0.00	0.00	Vehicle	Vehicle	144.57	-117.03	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	8.32	13.87	4.81	8.02
		U$_5$ - U$_6$	124.19	8.55	-69.60			0.75	1.00	6.42	-52.20	0.00	0.00	Vehicle	Vehicle	175.34	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	51.15	85.25	-----	-----
		U$_6$ - U$_7$	223.31	85.22	-30.25			0.75	1.00	63.92	-22.69	0.00	0.00	Vehicle	Vehicle	428.79	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	5.45	9.09	-----	-----
		U$_7$ - U$_8$	331.92	117.73	0.00			0.75	1.00	88.30	0.00	0.00	0.00	Vehicle	Vehicle	622.80	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	5.29	8.81	-----	-----
		U$_8$ - U$_9$	267.71	54.90	43.32			0.75	1.00	41.17	32.49	0.00	0.00	Vehicle	Vehicle	437.23	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	9.78	16.30	-----	-----
		U$_9$ - U$_{10}$	89.12	53.25	-15.29			0.75	1.00	39.94	-11.46	0.00	0.00	Vehicle	Vehicle	202.39	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	-----	-----	42.67	-----	-----	10.67	-----	-----	9.32	15.53	-----	-----
		U$_{10}$ - U$_{11}$	-76.89	47.66	-62.67			0.75	1.00	35.75	-47.00	0.00	0.00	Vehicle	Vehicle	-----	-201.79	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	6.64	11.07
		U$_{11}$ - U$_{12}$	-230.86	41.36	-112.42			0.75	1.00	31.02	-84.32	0.00	0.00	Vehicle	Vehicle	-----	-482.81	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	4.14	6.90
		U$_{12}$ - U$_{13}$	-342.15	38.45	-150.97			0.75	1.00	28.84	-113.22	0.00	0.00	Vehicle	Vehicle	-----	-690.11	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	45.00	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	4.21	7.02
		U$_{13}$ - U$_{14}$	-421.98	31.81	-194.59			0.75	1.00	23.86	-145.95	0.00	0.00	Vehicle	Vehicle	-----	-864.79	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.72	6.20
		U$_{14}$ - U$_{15}$	-422.87	31.67	-194.59			0.75	1.00	23.75	-145.94	0.00	0.00	Vehicle	Vehicle	-----	-865.95	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.72	6.20
		U$_{15}$ - U$_{16}$	-440.39	24.53	-181.96			0.75	1.00	18.40	-136.47	0.00	0.00	Vehicle	Vehicle	-----	-868.19	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.90	6.50
		U$_{16}$ - U$_{17}$	-422.93	18.44	-166.18			0.75	1.00	13.83	-124.64	0.00	0.00	Vehicle	Vehicle	-----	-819.86	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	4.35	7.26
		U$_{17}$ - U$_{18}$	-341.45	-124.33	11.35			0.75	1.00	8.51	-93.25	0.00	0.00	Vehicle	Vehicle	-----	-645.92	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	4.05	6.75
		U$_{18}$ - U$_{19}$	-247.63	-78.92	-52.68			0.75	1.00	-39.51	-59.19	0.00	0.00	Vehicle	Vehicle	-----	-450.16	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	4.36	7.26
		U$_{19}$ - U$_{20}$	-132.06	-26.09	2.96			0.75	1.00	2.22	-19.57	0.00	0.00	Vehicle	Vehicle	-----	-214.08	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	16.72	27.87
	Structure 2	U$_0$ - U$_1$	-131.63	11.70	-50.79			0.75	1.00	8.78	-38.09	0.00	0.00	Vehicle	Vehicle	-----	-253.65	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	8.12	13.54
		U$_1$ - U$_2$	-247.12	25.19	-101.41			0.75	1.00	16.89	-76.06	0.00	0.00	Vehicle	Vehicle	-----	-486.04	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.29	7.16
		U$_2$ - U$_3$	-347.28	39.28	-145.29			0.75	1.00	29.46	-108.97	0.00	0.00	Vehicle	Vehicle	-----	-687.55	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.50	4.00	0.50	16.00	95.35	272.00	30.22	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	4.02	6.70
		U$_3$ - U$_4$	-437.20	55.44	-185.50			0.75	1.00	41.58	-139.12	0.00	0.00	Vehicle	Vehicle	-----	-869.79	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.90	6.50
		U$_4$ - U$_5$	-468.83	68.33	-207.70			0.75	1.00	51.25	-155.77	0.00	0.00	Vehicle	Vehicle	-----	-946.99	15.14	69.44	54.2975	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.92	6.54
		U$_5$ - U$_6$	-471.14	81.18	-209.09			0.75	1.00	60.88	-156.82	0.00	0.00	Vehicle	Vehicle	-----	-952.26	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.89	6.48
		U$_6$ - U$_7$	-414.50	90.80	-216.37			0.75	1.00	68.10	-162.28	0.00	0.00	Vehicle	Vehicle	-----	-890.45	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.43	5.71
		U$_7$ - U$_8$	-413.54	90.93	-216.13			0.75	1.00	68.20	-162.09	0.00	0.00	Vehicle	Vehicle	-----	-888.81	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	45.00	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.43	5.72
		U$_8$ - U$_9$	-322.06	94.71	-194.51			0.75	1.00	71.04	-145.88	0.00	0.00	Vehicle	Vehicle	-----	-734.76	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	3.31	5.51
		U$_9$ - U$_{10}$	-182.16	102.94	-164.16			0.75	1.00	77.20	-123.12	0.00	0.00	Vehicle	Vehicle	-----	-503.57	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	3.43	5.72
		U$_{10}$ - U$_{11}$	-32.61	110.20	-113.13			0.75	1.00	82.65	-84.84	0.00	0.00	Vehicle	Vehicle	136.67	-226.23	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	12.00	Pass	6.85	11.41	5.21	8.68
		U$_{11}$ - U$_{12}$	133.57	63.69	0.00			0.75	1.00	47.76	0.00	0.00	0.00	Vehicle	Vehicle	277.13	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	9.76	16.27	-----	-----
		U$_{12}$ - U$_{13}$	289.98	111.55	115.46			0.75	1.00	86.59	83.66	0.00	0.00	Vehicle	Vehicle	564.59	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	5.88	9.81	-----	-----
		U$_{13}$ - U$_{14}$	434.77	157.30	0.00			0.75	1.00	117.97	0.00	0.00	0.00	Vehicle	Vehicle	820.81	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.74	9.57	-----	-----
		U$_{14}$ - U$_{15}$	474.48	52.58	78.71			0.75	1.00	59.03	39.44	0.00	0.00	Vehicle	Vehicle	744.72	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	11.08	18.46	-----	-----
		U$_{15}$ - U$_{16}$	383.31	63.35	38.87			0.75	1.00	47.51	29.15	0.00	0.00	Vehicle	Vehicle	601.25	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	11.23	18.71	-----	-----
		U$_{16}$ - U$_{17}$	279.61	70.00	-2.26			0.75	1.00	52.50	-1.70	0.00	0.00	Vehicle	Vehicle	477.25	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	8.73	14.56	-----	-----
		U$_{17}$ - U$_{18}$	172.67	76.70	11.62			0.75	1.00	57.52	8.71	0.00	0.00	Vehicle	Vehicle	349.10	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	6.19	10.32	-----	-----
		U$_{18}$ - U$_{19}$	74.40	79.70	-70.43			0.75	1.00	59.78	-52.82	0.00	0.00	Vehicle	Vehicle	226.23	-17.73	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	6.95	11.58	8.20	13.66
		U$_{19}$ - U$_{20}$	-9.98	82.59	-111.09			0.75	1.00	61.94	-83.32	0.00	0.00	Vehicle	Vehicle	121.24	-193.50	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.04	13.40	4.92	8.20
	Structure 3	U$_0$ - U$_{21}$	-62.02	85.19	-128.97			0.75	1.00	63.90	-96.73	0.00	0.00	Vehicle	Vehicle	57.82	-290.20	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	9.89	16.49	4.81	8.01
		U$_{21}$ - U$_{22}$	-88.69	86.27	-159.69			0.75	1.00	64.70	-119.77	0.00	0.00	Vehicle	Vehicle	24.89	-374.79	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	10.02	16.70	3.75	6.25
		U$_{22}$ - U$_{23}$	-88.87	82.98	-159.53			0.75	1.00	62.23	-119.65	0.00	0.00	Vehicle	Vehicle	19.31	-374.77	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	10.42	17.36	3.75	6.25
		U$_{23}$ - U$_{24}$	-76.60	85.01	-142.74			0.75	1.00	63.76	-107.05	0.00	0.00	Vehicle	Vehicle	38.56	-331.52	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	10.05	16.75	4.26	7.10
		U$_{24}$ - U$_{25}$	-37.55	83.83	-123.88			0.75	1.00	62.88	-92.91	0.00	0.00	Vehicle	Vehicle	87.41	-250.13	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.19	13.64	4.23	7.05
		U$_{25}$ - U$_{26}$	37.36	80.86	-20.53			0.75	1.00	60.65	-15.40	0.00	0.00	Vehicle	Vehicle	179.96	-----	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	7.21	12.02	-----	-----
		U$_{26}$ - U$_{27}$	128.18	11.71	-32.92			0.75	1.00	8.78	-24.69	0.00	0.00	Vehicle	Vehicle	185.66	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	43.61	72.68	-----	-----
		U$_{27}$ - U$_{28}$	233.91	70.97	0.00			0.75	1.00	53.23	0.00	0.00	0.00	Vehicle	Vehicle	419.41	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	9.13	15.22	-----	-----
		U$_{28}$ - U$_{29}$	337.95	70.38	23.27			0.75	1.00	52.78	17.45	0.00	0.00	Vehicle	Vehicle	553.69	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	10.62	17.70	-----	-----
		U$_{29}$ - U$_{30}$	437.48	164.44	0.00			0.75	1.00	123.33	0.00	0.00	0.00	Vehicle	Vehicle	835.94	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	5.48	9.14	-----	-----
		U$_{30}$ - U$_{31}$	420.86	90.54	32.82			0.75	1.00	67.91	24.61	0.00	0.00	Vehicle	Vehicle	694.25	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	10.10	16.84	-----	-----
		U$_{31}$ - U$_{32}$	300.88	97.80	-14.92			0.75	1.00	73.35	-11.19	0.00	0.00	Vehicle	Vehicle	550.07	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane

Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17

Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capicity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Lower Chord	Structure 1	L$_0$- L$_1$	8.48	-4.10	3.54			0.75	1.00	2.66	-3.07	0.00	0.00	Vehicle	Vehicle	16.78	-----	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**111.64**	**186.06**	-----	-----
		L$_1$ - L$_2$	50.83	-21.03	50.28			0.75	1.00	37.71	-15.77	0.00	0.00	Vehicle	Vehicle	147.80	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.19**	**11.98**	-----	-----
		L$_2$ - L$_3$	61.27	-36.19	69.80			0.75	1.00	52.35	-27.14	0.00	0.00	Vehicle	Vehicle	193.08	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**6.96**	**11.60**	-----	-----
		L$_3$ - L$_4$	25.72	-50.17	95.42			0.75	1.00	71.56	-37.63	0.00	0.00	Vehicle	Vehicle	188.49	-48.10	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	**5.39**	**8.98**	**9.39**	**15.64**
		L$_4$ - L$_5$	-118.55	-16.42	0.00			0.75	1.00	0.00	-12.32	0.00	0.00	Vehicle	Vehicle	-----	-180.80	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**18.60**	**31.00**
		L$_5$ - L$_6$	-217.97	-82.50	21.18			0.75	1.00	15.89	-61.87	0.00	0.00	Vehicle	Vehicle	-----	-417.42	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**4.28**	**7.14**
		L$_6$ - L$_7$	-320.57	-27.07	-91.60			0.75	1.00	-20.30	-68.70	0.00	0.00	Vehicle	Vehicle	-----	-565.59	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**5.45**	**9.09**
		L$_7$ - L$_8$	-417.42	-176.34	0.00			0.75	1.00	0.00	-132.26	0.00	0.00	Vehicle	Vehicle	-----	-829.20	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.55**	**5.91**
		L$_8$ - L$_9$	-411.08	-55.03	-100.00			0.75	1.00	-41.28	-75.00	0.00	0.00	Vehicle	Vehicle	-----	-696.91	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**6.31**	**10.51**
		L$_9$ - L$_{10}$	-247.97	-55.76	-43.91			0.75	1.00	-32.93	-41.82	0.00	0.00	Vehicle	Vehicle	-----	-412.97	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**10.00**	**16.67**
		L$_{10}$ - L$_{11}$	-65.37	-54.09	14.54			0.75	1.00	10.91	-40.56	0.00	0.00	Vehicle	Vehicle	-----	-172.87	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**6.43**	**10.72**
		L$_{11}$ - L$_{12}$	101.81	-48.27	66.90			0.75	1.00	50.17	-36.20	0.00	0.00	Vehicle	Vehicle	241.06	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.89**	**9.81**	-----	-----
		L$_{12}$ - L$_{13}$	264.06	-43.02	110.25			0.75	1.00	82.68	-32.26	0.00	0.00	Vehicle	Vehicle	522.43	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.16**	**8.60**	-----	-----
		L$_{13}$ - L$_{14}$	373.80	-35.97	143.08			0.75	1.00	107.31	-26.97	0.00	0.00	Vehicle	Vehicle	718.45	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.22**	**8.70**	-----	-----
		L$_{14}$ - L$_{15}$	476.54	-22.92	160.58			0.75	1.00	120.44	-17.19	0.00	0.00	Vehicle	Vehicle	880.45	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.47**	**9.12**	-----	-----
		L$_{15}$ - L$_{16}$	460.23	-16.82	145.08			0.75	1.00	108.81	-12.61	0.00	0.00	Vehicle	Vehicle	834.05	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**6.14**	**10.24**	-----	-----
		L$_{16}$ - L$_{17}$	381.61	104.47	82.92			0.75	1.00	78.35	62.19	0.00	0.00	Vehicle	Vehicle	665.85	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	**6.39**	**10.66**	-----	-----
		L$_{17}$ - L$_{18}$	289.18	59.09	-4.61			0.75	1.00	44.32	-3.45	0.00	0.00	Vehicle	Vehicle	471.96	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	**8.05**	**13.41**	-----	-----
		L$_{18}$ - L$_{19}$	176.31	21.54	-3.11			0.75	1.00	16.15	-2.33	0.00	0.00	Vehicle	Vehicle	264.20	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**12.12**	**20.20**	-----	-----
		L$_{19}$ - L$_{20}$	69.72	-17.82	-0.30			0.75	1.00	-0.22	-13.37	0.00	0.00	Vehicle	Vehicle	90.16	-----	1.95	19.80	17.8500	653.40	131.71	10.8073	5.6265	17.41	32.71	-550.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	-----	-----	-----	-----
		L$_0$- L$_1$	24.42	-2.15	1.48			0.75	1.00	1.11	-1.61	0.00	0.00	Vehicle	Vehicle	34.15	-----	1.88	20.08	18.2000	662.64	131.71	10.8828	6.9064	14.18	32.81	-559.98	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**262.68**	**437.80**	-----	-----
		L$_1$ - L$_2$	138.42	-13.37	50.26			0.75	1.00	37.70	-10.03	0.00	0.00	Vehicle	Vehicle	261.62	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**7.88**	**13.13**	-----	-----
		L$_2$ - L$_3$	252.76	-27.56	103.26			0.75	1.00	77.44	-20.67	0.00	0.00	Vehicle	Vehicle	496.38	-----	6.20	38.45	32.2500	1268.85	131.71	10.7370	6.1675	15.67	32.77	-1070.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	**5.60**	**9.34**	-----	-----
		L$_3$ - L$_4$	352.26	-41.67	147.10			0.75	1.00	110.33	-31.25	0.00	0.00	Vehicle	Vehicle	696.98	-----	9.45	51.58	42.1250	1701.98	131.71	10.7370	5.7558	16.79	32.73	-1434.93	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	**5.20**	**8.67**	-----	-----
		L$_4$ - L$_5$	447.15	-57.92	184.99			0.75	1.00	138.74	-43.44	0.00	0.00	Vehicle	Vehicle	881.91	-----	11.00	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.90	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.20**	**8.67**	-----	-----
		L$_5$ - L$_6$	477.91	-70.79	206.93			0.75	1.00	155.19	-53.09	0.00	0.00	Vehicle	Vehicle	957.54	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.08**	**8.47**	-----	-----
		L$_6$ - L$_7$	482.67	-83.62	193.14			0.75	1.00	144.85	-62.72	0.00	0.00	Vehicle	Vehicle	941.32	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	**5.53**	**9.22**	-----	-----
		L$_7$ - L$_8$	336.57	-101.75	179.61			0.75	1.00	134.70	-76.31	0.00	0.00	Vehicle	Vehicle	729.40	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	**4.48**	**7.46**	-----	-----
		L$_8$ - L$_9$	196.00	-102.94	151.53			0.75	1.00	113.65	-77.21	0.00	0.00	Vehicle	Vehicle	501.04	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	**4.77**	**7.95**	-----	-----
		L$_8$ - L$_{10}$	45.53	-110.38	100.17			0.75	1.00	75.13	-82.79	0.00	0.00	Vehicle	Vehicle	221.96	-120.18	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	**6.52**	**10.87**	**5.60**	**9.34**
		L$_{10}$ - L$_{11}$	-126.32	-113.68	0.00			0.75	1.00	0.00	-85.26	0.00	0.00	Vehicle	Vehicle	-----	-348.95	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.78	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.69**	**6.15**
		L$_{11}$ - L$_{12}$	-284.95	-133.00	0.00			0.75	1.00	0.00	-99.75	0.00	0.00	Vehicle	Vehicle	-----	-586.56	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.88**	**6.47**
		L$_{12}$ - L$_{13}$	-433.89	-13.56	-168.47			0.75	1.00	-10.17	-126.35	0.00	0.00	Vehicle	Vehicle	-----	-837.83	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**4.00**	**6.66**
		L$_{13}$ - L$_{14}$	-552.76	-218.38	0.00			0.75	1.00	0.00	-163.78	0.00	0.00	Vehicle	Vehicle	-----	-1073.45	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.53**	**5.88**
		L$_{14}$ - L$_{15}$	-573.53	0.00	-212.20			0.75	1.00	0.00	-159.15	0.00	0.00	Vehicle	Vehicle	-----	-1090.41	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.55**	**5.92**
		L$_{15}$ - L$_{16}$	-493.00	-53.80	-50.11			0.75	1.00	-37.58	-40.35	0.00	0.00	Vehicle	Vehicle	-----	-728.32	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**11.63**	**19.39**
		L$_{16}$ - L$_{17}$	-395.34	-68.61	-40.86			0.75	1.00	-30.65	-51.45	0.00	0.00	Vehicle	Vehicle	-----	-625.42	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**7.60**	**12.67**
		L$_{17}$ - L$_{18}$	-288.08	-75.15	-85.78			0.75	1.00	-56.36	-64.33	0.00	0.00	Vehicle	Vehicle	-----	-513.89	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**4.10**	**6.83**
		L$_{18}$ - L$_{19}$	-175.85	-82.14	-26.78			0.75	1.00	-20.09	-61.60	0.00	0.00	Vehicle	Vehicle	-----	-362.07	1.25	26.75	25.5000	882.75	131.71	10.6406	5.6472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**3.87**	**6.46**
		L$_{19}$ - L$_{20}$	-78.08	-85.01	80.69			0.75	1.00	60.52	-63.76	0.00	0.00	Vehicle	Vehicle	29.62	-239.64	1.88	26.75	24.8700	882.75	131.71	10.6380	5.6472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**7.51**	**12.51**	**4.66**	**7.77**
	Structure 2	L$_{20}$ - L$_{21}$	7.59	-88.86	113.31			0.75	1.00	84.99	-66.65	0.00	0.00	Vehicle	Vehicle	194.01	-134.53	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.76**	**11.26**	**7.40**	**12.33**
		L$_{21}$ - L$_{22}$	59.10	-87.50	127.03			0.75	1.00	95.27	-65.63	0.00	0.00	Vehicle	Vehicle	283.25	-65.36	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**5.70**	**9.50**	**7.98**	**13.31**
		L$_{22}$ - L$_{23}$	72.03	-86.90	128.47			0.75	1.00	96.35	-65.18	0.00	0.00	Vehicle	Vehicle	302.40	-47.58	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**5.56**	**9.26**	**8.16**	**13.60**
		L$_{23}$ - L$_{24}$	33.57	-85.74	109.87			0.75	1.00	82.40	-64.31	0.00	0.00	Vehicle	Vehicle	222.17	-95.69	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.78**	**11.30**	**7.91**	**13.18**
		L$_{24}$ - L$_{25}$	-45.06	-84.01	43.60			0.75	1.00	32.70	-63.01	0.00	0.00	Vehicle	Vehicle	12.28	-195.09	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**13.28**	**22.14**	**5.03**	**8.39**
		L$_{25}$ - L$_{26}$	-134.95	-79.43	0.00			0.75	1.00	0.00	-59.57	0.00	0.00	Vehicle	Vehicle	-----	-304.50	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.42**	**7.36**
		L$_{26}$ - L$_{27}$	-245.92	-82.04	0.00			0.75	1.00	0.00	-61.53	0.00	0.00	Vehicle	Vehicle	-----	-453.02	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**4.70**	**7.83**
		L$_{27}$ - L$_{28}$	-351.86	-139.86	0.00			0.75	1.00	0.00	-104.89	0.00	0.00	Vehicle	Vehicle	-----	-684.69	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.98**	**6.63**
		L$_{28}$ - L$_{29}$	-458.41	-49.36	-180.81			0.75	1.00	-37.02	-135.61	0.00	0.00	Vehicle	Vehicle	-----	-889.75	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.61**	**6.02**
		L$_{29}$ - L$_{30}$	-542.36	-216.24	0.00			0.75	1.00	0.00	-162.18	0.00	0.00	Vehicle	Vehicle	-----	-1056.46	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.60**	**6.00**
		L$_{30}$ - L$_{31}$	-514.21	0.00	-215.56			0.75	1.00	0.00	-161.67	0.00	0.00	Vehicle	Vehicle	-----	-1018.76	11.98	70.85	58.8700	2338.05	131.71	11.1432	5.6285	17.82	32.70	-1969.16	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.71**	**6.19**
		L$_{31}$ - L$_{32}$	-411.27	-105.01	-37.47			0.75	1.00	-28.10	-78.76	0.00	0.00	Vehicle	Vehicle	-----	-705.30	9.73	59.60	49.8700	1966.80	131.71	11.1432	5.8413	17.17	32.72	-1657.58	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Artic
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	Impact & Pedestrian Load MAX	Impact & Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capicity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Verticals	Structure 1	U_0 - L_0	-67.68	-58.78	15.36			0.75	1.00	11.52	-44.09	0.00	0.00	Vehicle	Vehicle	-----	-183.50	1.63	16.85	15.2186	556.00	131.71	9.3438	1.9682	42.73	31.26	-447.73	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	3.77	6.28
		U_1 - L_1	-24.09	-42.84	14.91			0.75	1.00	11.18	-32.13	0.00	0.00	Vehicle	Vehicle	-----	-100.92	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.13	10.21
		U_2 - L_2	12.87	-34.55	12.76			0.75	1.00	9.57	-25.91	0.00	0.00	Vehicle	Vehicle	37.47	-39.41	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	26.01	43.36	8.45	14.08
		U_3 - L_3	37.37	-24.60	13.22			0.75	1.00	9.92	-18.45	0.00	0.00	Vehicle	Vehicle	70.07	-----	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	23.62	39.36	-----	-----
		U_4 - L_4	-15.55	0.00	-74.65			0.75	1.00	0.00	-55.98	0.00	0.00	Vehicle	Vehicle	-----	-141.51	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	3.58	5.97
		U_5 - L_5	-92.59	0.00	-80.17			0.75	1.00	0.00	-60.12	0.00	0.00	Vehicle	Vehicle	-----	-250.63	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	3.32	5.53
		U_6 - L_6	-117.07	0.00	-97.17			0.75	1.00	0.00	-72.88	0.00	0.00	Vehicle	Vehicle	-----	-310.09	3.13	24.86	21.7294	820.36	131.71	9.9479	2.0895	42.85	31.25	-660.40	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	3.22	5.36
		U_7 - L_7	-127.52	0.00	-90.35			0.75	1.00	0.00	-67.77	0.00	0.00	Vehicle	Vehicle	-----	-312.59	2.88	23.11	20.2294	762.61	131.71	11.7292	2.0414	51.71	30.46	-598.26	16.25	0.44	10.00	0.50	-----	-----	16.25	-----	-----	37.14	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	2.95	4.91
		U_8 - L_8	-368.71	-101.45	-92.58			0.75	1.00	-69.44	-76.09	0.00	0.00	Vehicle	Vehicle	-----	-644.18	3.28	51.42	48.1423	1696.94	131.71	16.6563	4.0363	37.14	31.69	-1385.05	15.25	0.82	15.64	1.31	-----	-----	15.25	-----	-----	18.60	45.00	Pass	5.96	12.00	Pass	-----	-----	-----	-----	-----	5.49	9.16
		U_9 - L_9	-214.56	-88.04	0.00			0.75	1.00	0.00	-66.03	0.00	0.00	Vehicle	Vehicle	-----	-422.00	3.50	31.56	28.0625	1041.56	131.71	12.1563	2.5582	42.77	31.26	-838.65	16.25	0.50	12.00	0.63	-----	-----	16.25	-----	-----	32.50	45.00	Pass	9.60	12.00	Pass	-----	-----	-----	-----	-----	3.91	6.52
		U_{10} - L_{10}	-198.68	-79.01	-6.85			0.75	1.00	-5.14	-59.26	0.00	0.00	Vehicle	Vehicle	-----	-386.67	2.76	36.13	33.3715	1192.34	131.71	10.7083	2.3777	40.53	31.44	-965.49	16.16	0.83	11.50	0.80	-----	-----	16.16	-----	-----	19.50	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	5.51	9.18
		U_{11} - L_{11}	-171.40	-83.62	0.00			0.75	1.00	0.00	-62.71	0.00	0.00	Vehicle	Vehicle	-----	-358.69	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.50	7.49
		U_{12} - L_{12}	-128.37	-75.62	0.00			0.75	1.00	0.00	-56.71	0.00	0.00	Vehicle	Vehicle	-----	-289.75	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	-----	-----	16.25	-----	-----	32.50	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	4.28	7.13
		U_{13} - L_{13}	-96.65	-65.22	0.00			0.75	1.00	0.00	-48.92	0.00	0.00	Vehicle	Vehicle	-----	-231.62	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	3.48	5.80
		U_{14} - L_{14}	-11.04	-41.93	-43.77			0.75	1.00	-31.45	-32.82	0.00	0.00	Vehicle	Vehicle	-----	-85.48	0.00	16.85	16.8486	556.00	131.71	9.2605	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	6.10	10.17
		U_{15} - L_{15}	-2.47	7.62	-38.73			0.75	1.00	5.71	-29.04	0.00	0.00	Vehicle	Vehicle	9.16	-66.14	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	45.19	75.31	7.04	11.73
		U_{16} - L_{16}	-31.27	6.69	-45.02			0.75	1.00	5.02	-33.76	0.00	0.00	Vehicle	Vehicle	-----	-113.81	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.51	9.18
		U_{17} - L_{17}	-105.05	7.36	-68.19			0.75	1.00	5.52	-51.14	0.00	0.00	Vehicle	Vehicle	-----	-247.38	0.00	20.66	20.6644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	-----	-----	-----	3.59	5.99
		U_{18} - L_{18}	-126.74	6.02	-71.29			0.75	1.00	4.51	-53.47	0.00	0.00	Vehicle	Vehicle	-----	-280.61	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	45.00	Pass	7.23	12.00	Pass	-----	-----	-----	-----	-----	4.47	7.45
		U_{19} - L_{19}	-166.77	5.54	-73.72			0.75	1.00	4.16	-55.29	0.00	0.00	Vehicle	Vehicle	-----	-336.59	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	4.88	8.13
		U_{20} - L_{20}	-184.59	5.13	-81.87			0.75	1.00	3.84	-61.40	0.00	0.00	Vehicle	Vehicle	-----	-373.00	0.00	30.63	30.6305	1010.81	131.71	20.3229	2.8427	64.34	29.06	-756.66	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.88	6.47
		U_0 - L_0	-203.59	-97.02	18.83			0.75	1.00	14.12	-72.76	0.00	0.00	Vehicle	Vehicle	-----	-422.32	0.00	33.27	33.2657	1097.77	131.71	19.1510	2.8573	60.32	29.54	-835.23	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.62	6.03
		U_1 - L_1	-176.11	-88.29	20.54			0.75	1.00	15.41	-66.22	0.00	0.00	Vehicle	Vehicle	-----	-372.41	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	4.50	7.50
		U_2 - L_2	-137.55	-74.55	19.67			0.75	1.00	14.75	-55.91	0.00	0.00	Vehicle	Vehicle	-----	-299.96	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.69	7.81
		U_3 - L_3	-117.62	-65.23	20.69			0.75	1.00	15.52	-48.92	0.00	0.00	Vehicle	Vehicle	-----	-258.90	0.00	22.73	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	45.00	Pass	4.91	12.00	Pass	-----	-----	-----	-----	-----	4.10	6.83
		U_4 - L_4	-50.97	-46.87	16.36			0.75	1.00	12.27	-35.15	0.00	0.00	Vehicle	Vehicle	-----	-142.42	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	4.92	8.20
		U_5 - L_5	-13.78	-39.71	16.11			0.75	1.00	12.08	-29.78	0.00	0.00	Vehicle	Vehicle	8.27	-82.44	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	21.92	36.53	6.58	10.97
		U_6 - L_6	45.47	-24.01	12.78			0.75	1.00	9.59	-18.01	0.00	0.00	Vehicle	Vehicle	79.89	-----	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	23.92	39.86	-----	-----
		U_7 - L_7	-22.33	0.00	-9.71			0.75	1.00	0.00	-7.28	0.00	0.00	Vehicle	Vehicle	-----	-44.81	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	26.22	43.70
		U_8 - L_8	-120.08	0.00	-55.17			0.75	1.00	0.00	-41.38	0.00	0.00	Vehicle	Vehicle	-----	-245.75	3.13	24.75	21.6200	816.75	131.71	10.8151	2.8573	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	-----	-----	15.75	-----	-----	36.00	45.00	Pass	8.89	12.00	Pass	-----	-----	-----	-----	-----	5.95	9.92
		U_9 - L_9	-177.03	0.00	-82.07			0.75	1.00	0.00	-61.55	0.00	0.00	Vehicle	Vehicle	-----	-363.49	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	5.01	8.35
		U_{10} - L_{10}	-205.88	0.00	-84.28			0.75	1.00	0.00	-63.21	0.00	0.00	Vehicle	Vehicle	-----	-404.60	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	5.44	9.06
		U_{11} - L_{11}	-239.23	0.00	-123.01			0.75	1.00	0.00	-92.25	0.00	0.00	Vehicle	Vehicle	-----	-510.89	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.42	5.70
		U_{12} - L_{12}	-257.95	-3.70	-122.38			0.75	1.00	-2.78	-91.78	0.00	0.00	Vehicle	Vehicle	-----	-534.21	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.55	5.92
		U_{13} - L_{13}	-243.82	0.00	-101.41			0.75	1.00	0.00	-76.05	0.00	0.00	Vehicle	Vehicle	-----	-481.75	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.52	5.87
		U_{14} - L_{14}	-420.85	-84.60	-81.90			0.75	1.00	-61.43	-63.45	0.00	0.00	Vehicle	Vehicle	-----	-684.58	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	-----	-----	-----	5.97	9.95
		U_{15} - L_{15}	-158.83	-89.93	21.71			0.75	1.00	16.28	-67.45	0.00	0.00	Vehicle	Vehicle	-----	-352.62	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.73	7.88
		U_{16} - L_{16}	-174.02	-108.29	13.01			0.75	1.00	9.76	-81.22	0.00	0.00	Vehicle	Vehicle	-----	-402.20	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.64	6.06
		U_{17} - L_{17}	-156.46	-108.06	10.83			0.75	1.00	8.12	-81.04	0.00	0.00	Vehicle	Vehicle	-----	-378.99	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.46	5.76
		U_{18} - L_{18}	-142.21	-111.99	2.93			0.75	1.00	2.20	-83.99	0.00	0.00	Vehicle	Vehicle	-----	-366.85	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.11	5.18
		U_{19} - L_{19}	-113.66	-59.36	3.68			0.75	1.00	2.76	-44.52	0.00	0.00	Vehicle	Vehicle	-----	-244.22	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	5.36	8.93
		U_{20} - L_{20}	-76.51	-52.47	-1.07			0.75	1.00	-0.80	-39.35	0.00	0.00	Vehicle	Vehicle	-----	-184.72	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	4.55	7.59
		U_{21} - L_{21}	-45.77	-44.93	0.44			0.75	1.00	0.33	-33.70	0.00	0.00	Vehicle	Vehicle	-----	-132.52	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.25	8.75
		U_{22} - L_{22}	-17.72	-9.60	-7.40			0.75	1.00	-5.55	-7.20	0.00	0.00	Vehicle	Vehicle	-----	-38.63	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	27.02	45.04
		U_{23} - L_{23}	-30.69	1.75	-43.91			0.75	1.00	1.31	-32.94	0.00	0.00	Vehicle	Vehicle	-----	-111.25	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.64	9.41
		U_{24} - L_{24}	-62.06	-0.18	-51.51			0.75	1.00	-0.13	-38.63	0.00	0.00	Vehicle	Vehicle	-----	-164.39	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	4.86	8.10
		U_{25} - L_{25}	-103.15	3.09	-67.56			0.75	1.00	2.32	-50.67	0.00	0.00	Vehicle	Vehicle	-----	-243.88	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	-----	-----	-----	4.83	8.06
		U_{26} - L_{26}	-134.38	0.91	-111.39			0.75	1.00	0.69	-83.54	0.00	0.00	Vehicle	Vehicle	-----	-355.69	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.18	5.30
		U_{27} - L_{27}	-156.03	5.68	-107.75			0.75	1.00	4.26	-80.81	0.00	0.00	Vehicle	Vehicle	-----	-377.93	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.47	5.78
		U_{28} - L_{28}	-179.40	4.00	-118.33			0.75	1.00	3.00	-88.75	0.00	0.00	Vehicle	Vehicle	-----	-425.51	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	-----	-----	-----	3.29	5.48
		U_{29} - L_{29}	-171.60	0.00	-100.35			0.75	1.00	0.00	-75.26	0.00	0.00	Vehicle	Vehicle	-----	-386.15	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	4.13	6.89
		U_{30} - L_{30}	-393.29	-99.67	-73.83			0.75	1.00	-55.37	-74.75	0.00	0.00	Vehicle	Vehicle	-----	-673.24	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	-----	-----	-----	5.29	8.81
		U_{31} - L_{31}	-203.49	-103.65	14.69			0.75	1.00	11.02	-77.73	0.00	0.00	Vehicle	Vehicle	-----	-432.95	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	-----	-----	-----	3.76	6.26
		U_{32} - L_{32}	-222.61	-123.82	3.46			0.75	1.00	2.60	-92.87	0.00	0.00	Vehicle	Vehicle	-----	-490.61	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	-----	-----	-----	3.74	6.24
		U_{33} - L_{33}	-211.72	-123.53	1.59			0.75	1.00	1.19	-92.65	0.00	0.00	Veh

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL_{max} (kips)	LL_{min} (kips)	Pedestrian $Load_{MAX}$	Pedestrian $Load_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL_{MAX}	Lane Reduction and Impact LL_{MIN}	Impact & Pedestrian $Load_{MAX}$	Impact & Pedestrian $Load_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A_{deduct} (in²) **	A_{gross} (in²)	A_{net} (in²)	$C_{Nominal}$ (kips)	Member Capacity in Compression: C_c	L (feet)	r_{min} (in)	KL/r_{min} ***	F_{crit} **** (ksi)	$C_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
Center Truss - Diagonals	Structure 1	U_0 - L_1	53.29	64.87	-23.24			0.75	1.00	48.65	-17.43	0.00	0.00	Vehicle	Vehicle	174.69	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	**6.57**	**10.96**	-----	-----
		U_1 - L_2	10.80	50.19	-18.78			0.75	1.00	37.64	-14.09	0.00	0.00	Vehicle	Vehicle	95.59	-16.48	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**6.65**	**11.08**	**14.75**	**24.58**
		U_2 - L_3	-44.05	41.02	-7.77			0.75	1.00	30.77	-5.83	0.00	0.00	Vehicle	Vehicle	9.39	-69.90	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**9.20**	**15.33**	**29.87**	**49.78**
		U_3 - L_4	-76.77	-19.10	16.93			0.75	1.00	12.70	-14.33	0.00	0.00	Vehicle	Vehicle	-----	-130.85	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**10.87**	**18.12**
		U_4 - L_4	118.48	20.67	47.20			0.75	1.00	35.40	15.50	0.00	0.00	Vehicle	Vehicle	230.73	-----	0.00	20.66	20.6644	681.93	131.71	11.6953	2.0011	52.60	30.37	-533.41	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**6.88**	**11.47**	-----	-----
		U_5 - L_5	137.62	107.75	0.00			0.75	1.00	80.81	0.00	0.00	0.00	Vehicle	Vehicle	353.99	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.81**	**6.35**	-----	-----
		U_6 - L_6	157.39	106.30	0.00			0.75	1.00	79.73	0.00	0.00	0.00	Vehicle	Vehicle	377.34	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.71**	**6.19**	-----	-----
		U_7 - L_7	149.33	96.96	0.00			0.75	1.00	72.72	0.00	0.00	0.00	Vehicle	Vehicle	351.68	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.14**	**6.89**	-----	-----
		U_8 - L_8	249.21	92.83	0.00			0.75	1.00	69.62	0.00	0.00	0.00	Vehicle	Vehicle	474.83	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**6.14**	**10.24**	-----	-----
		U_9 - L_{10}	260.39	100.20	0.00			0.75	1.00	75.15	0.00	0.00	0.00	Vehicle	Vehicle	501.33	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.60**	**9.34**	-----	-----
		U_{10} - L_{11}	236.43	105.25	0.00			0.75	1.00	78.94	0.00	0.00	0.00	Vehicle	Vehicle	478.39	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**5.12**	**8.54**	-----	-----
		U_{11} - L_{12}	212.05	94.24	0.00			0.75	1.00	70.68	0.00	0.00	0.00	Vehicle	Vehicle	428.80	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.80**	**8.00**	-----	-----
		U_{12} - L_{13}	151.78	91.99	0.00			0.75	1.00	68.99	0.00	0.00	0.00	Vehicle	Vehicle	346.80	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**4.17**	**6.95**	-----	-----
		U_{13} - L_{14}	108.73	64.55	31.24			0.75	1.00	48.41	23.43	0.00	0.00	Vehicle	Vehicle	246.23	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**3.95**	**6.59**	-----	-----
		U_{14} - L_{14}	-24.56	0.00	-8.54			0.75	1.00	0.00	-6.40	0.00	0.00	Vehicle	Vehicle	-----	-45.80	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**28.47**	**47.44**
		U_{15} - L_{15}	23.90	54.54	-10.25			0.75	1.00	40.90	-7.69	0.00	0.00	Vehicle	Vehicle	119.70	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.92**	**9.87**	-----	-----
		U_{17} - L_{16}	120.04	63.53	-10.41			0.75	1.00	47.65	-7.81	0.00	0.00	Vehicle	Vehicle	259.28	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**5.09**	**8.49**	-----	-----
		U_{18} - L_{17}	144.84	81.04	-8.72			0.75	1.00	60.78	-6.54	0.00	0.00	Vehicle	Vehicle	319.99	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.99**	**8.32**	-----	-----
		U_{19} - L_{18}	193.27	77.05	-7.20			0.75	1.00	57.79	-5.40	0.00	0.00	Vehicle	Vehicle	376.46	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.37**	**8.95**	-----	-----
		U_{20} - L_{19}	193.75	77.31	-5.85			0.75	1.00	57.98	-4.39	0.00	0.00	Vehicle	Vehicle	377.50	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.34**	**8.91**	-----	-----
		U_0 - L_1	202.60	91.66	-21.43			0.75	1.00	68.74	-16.07	0.00	0.00	Vehicle	Vehicle	412.32	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.02**	**8.36**	-----	-----
		U_1 - L_2	190.84	90.56	-24.28			0.75	1.00	67.92	-18.21	0.00	0.00	Vehicle	Vehicle	395.25	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.18**	**8.64**	-----	-----
		U_2 - L_3	155.90	75.11	-23.90			0.75	1.00	56.33	-17.92	0.00	0.00	Vehicle	Vehicle	324.72	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.27**	**8.78**	-----	-----
		U_3 - L_4	134.06	63.95	-26.34			0.75	1.00	47.96	-19.75	0.00	0.00	Vehicle	Vehicle	278.19	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**5.54**	**9.24**	-----	-----
		U_4 - L_5	46.01	50.07	-20.79			0.75	1.00	37.55	-15.59	0.00	0.00	Vehicle	Vehicle	141.17	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	70.40	28.29	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**6.10**	**10.16**	-----	-----
		U_5 - L_6	3.43	38.21	-16.06			0.75	1.00	28.66	-12.04	0.00	0.00	Vehicle	Vehicle	66.55	-21.64	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**8.88**	**14.80**	**16.40**	**27.33**
		U_6 - L_7	-84.31	0.00	-31.32			0.75	1.00	0.00	-23.49	0.00	0.00	Vehicle	Vehicle	-----	-160.50	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	**7.02**	**11.71**
		U_7 - L_7	137.33	42.84	32.98			0.75	1.00	32.13	24.73	0.00	0.00	Vehicle	Vehicle	248.14	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**8.70**	**14.50**	-----	-----
		U_8 - L_8	210.92	77.90	0.00			0.75	1.00	58.43	0.00	0.00	0.00	Vehicle	Vehicle	400.78	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**5.13**	**8.55**	-----	-----
		U_{10} - L_9	236.39	97.69	0.00			0.75	1.00	73.27	0.00	0.00	0.00	Vehicle	Vehicle	466.06	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.43**	**7.39**	-----	-----
		U_{11} - L_{10}	274.65	98.38	0.00			0.75	1.00	73.79	0.00	0.00	0.00	Vehicle	Vehicle	516.91	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.63**	**7.72**	-----	-----
		U_{12} - L_{11}	281.09	130.62	0.00			0.75	1.00	97.96	0.00	0.00	0.00	Vehicle	Vehicle	577.67	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.45**	**5.75**	-----	-----
		U_{13} - L_{12}	278.14	108.93	-6.79			0.75	1.00	81.69	-5.09	0.00	0.00	Vehicle	Vehicle	538.59	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.67**	**6.11**	-----	-----
		U_{14} - L_{13}	235.47	94.78	-11.41			0.75	1.00	71.09	-8.56	0.00	0.00	Vehicle	Vehicle	460.13	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.58**	**7.63**	-----	-----
		U_{15} - L_{14}	143.01	73.10	-23.95			0.75	1.00	54.83	-17.96	0.00	0.00	Vehicle	Vehicle	304.71	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.56**	**9.26**	-----	-----
		U_{16} - L_{15}	171.90	91.18	-22.47			0.75	1.00	68.38	-16.85	0.00	0.00	Vehicle	Vehicle	371.63	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.20**	**7.00**	-----	-----
		U_{17} - L_{16}	181.04	113.94	-12.55			0.75	1.00	85.45	-9.41	0.00	0.00	Vehicle	Vehicle	420.49	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.72**	**6.19**	-----	-----
		U_{18} - L_{17}	171.16	112.18	-11.87			0.75	1.00	84.13	-8.90	0.00	0.00	Vehicle	Vehicle	404.79	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.42**	**5.70**	-----	-----
		U_{19} - L_{18}	150.64	69.41	0.00			0.75	1.00	52.06	0.00	0.00	0.00	Vehicle	Vehicle	308.63	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.76**	**9.60**	-----	-----
		U_{20} - L_{20}	125.86	62.22	0.00			0.75	1.00	46.67	0.00	0.00	0.00	Vehicle	Vehicle	264.73	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**6.14**	**10.23**	-----	-----
	Structure 2	U_{26} - L_{21}	76.04	60.29	-0.54			0.75	1.00	45.22	-0.40	0.00	0.00	Vehicle	Vehicle	196.83	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.67**	**7.78**	-----	-----
		U_{21} - L_{22}	38.33	18.49	-15.76			0.75	1.00	13.86	-11.82	0.00	0.00	Vehicle	Vehicle	79.87	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**16.85**	**28.09**	-----	-----
		U_{23} - L_{22}	18.05	25.27	10.34			0.75	1.00	18.95	7.75	0.00	0.00	Vehicle	Vehicle	64.52	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**12.97**	**21.62**	-----	-----
		U_{24} - L_{23}	58.57	60.69	0.00			0.75	1.00	45.52	0.00	0.00	0.00	Vehicle	Vehicle	174.77	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**4.87**	**8.11**	-----	-----
		U_{25} - L_{24}	114.98	63.28	0.00			0.75	1.00	47.46	0.00	0.00	0.00	Vehicle	Vehicle	252.30	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**6.17**	**10.29**	-----	-----
		U_{26} - L_{25}	143.00	82.11	0.00			0.75	1.00	61.58	0.00	0.00	0.00	Vehicle	Vehicle	319.32	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.95**	**8.24**	-----	-----
		U_{27} - L_{26}	173.82	114.87	0.00			0.75	1.00	86.15	0.00	0.00	0.00	Vehicle	Vehicle	412.63	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.32**	**5.53**	-----	-----
		U_{28} - L_{27}	186.60	117.05	-7.31			0.75	1.00	87.79	-5.48	0.00	0.00	Vehicle	Vehicle	432.78	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**3.58**	**5.96**	-----	-----
		U_{29} - L_{28}	190.75	104.90	-9.48			0.75	1.00	78.68	-7.11	0.00	0.00	Vehicle	Vehicle	418.43	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.51**	**5.85**	-----	-----
		U_{30} - L_{29}	161.86	85.90	-13.84			0.75	1.00	64.42	-10.38	0.00	0.00	Vehicle	Vehicle	350.00	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.55**	**7.59**	-----	-----
		U_{31} - L_{31}	191.72	86.66	-16.99			0.75	1.00	64.99	-12.74	0.00	0.00	Vehicle	Vehicle	390.06	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.41**	**9.01**	-----	-----
		U_{32} - L_{32}	226.45	108.22	-15.12			0.75	1.00	81.17	-11.34	0.00	0.00	Vehicle	Vehicle	470.24	-----	0.00	30.63	30.6305	1010.81	131.71	17.8750	2.8427	56.59	29.95	-779.87	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.07**	**6.79**	-----	-----
		U_{33} - L_{33}	243.42	127.76	0.00			0.75	1.00	95.82	0.00	0.00	0.00	Vehicle	Vehicle	524.06	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**3.76**	**6.27**	-----	-----
		U_{34} - L_{34}	239.13	74.02	0.00			0.75	1.00	55.51	0.00	0.00	0.00	Vehicle	Vehicle	431.14	-----	0.00	33.27	33.2657	1097.77	131.71	14.5729	2.8573	45.90	31.00	-876.43	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**6.54**	**10.90**	-----	-----
		U_{35} - L_{35}	222.16	78.94	0.00			0.75	1.00	59.21	0.00	0.00	0.00	Vehicle	Vehicle	417.08	-----	0.00	30.63	30.6305	1010.81	131.71	13.7604	2.8427	43.57	31.19	-812.18

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL_{max} (kips)	LL_{min} (kips)	Pedestrian $Load_{MAX}$	Pedestrian $Load_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL_{MAX}	Lane Reduction and Impact LL_{MIN}	Impact & Pedestrian $Load_{MAX}$	Impact & Pedestrian $Load_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A_{deduct} (in^2) **	A_{gross} (in^2)	A_{net} (in^2)	$C_{Nominal}$ (kips)	Member Capicity in Compression: C_c	L (feet)	r_{min} (in)	KL/r_{min} ***	F_{crit} **** (ksi)	$C_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Upper Chord	Structure 1	U_0 - U_1	-66.70	12.71	-38.85	2.21	-8.83	0.90	1.00	11.44	-34.97	2.21	-8.83	Vehicle	Vehicle	-----	-162.47	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	8.56	14.26
		U_1 - U_2	-86.55	30.99	-71.48	6.01	-16.34	0.90	1.00	27.89	-64.33	6.01	-16.34	Vehicle	Vehicle	-----	-251.90	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	-----	-----	4.47	7.44
		U_2 - U_3	-48.14	45.80	-68.63	9.46	-19.05	0.90	1.00	41.22	-61.76	9.46	-19.05	Vehicle	Vehicle	26.72	-196.41	4.88	26.44	21.5575	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	10.47	17.45	5.02	8.37
		U_3 - U_4	36.58	58.88	-39.59	12.74	-17.47	0.90	1.00	52.99	-35.63	12.74	-17.47	Vehicle	Pedestrian	162.38	-38.74	5.25	26.44	21.1875	872.44	131.71	10.6328	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	7.18	11.97	9.07	11.33
		U_4 - U_5	38.93	59.05	-54.96	12.80	-17.38	0.90	1.00	53.15	-49.46	12.80	-17.38	Vehicle	Pedestrian	165.77	-58.00	5.25	26.44	21.1875	872.44	131.71	10.6302	5.4277	17.63	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	45.00	Pass	42.67	50.00	Pass	9.33	12.00	Pass	7.14	11.89	7.23	9.04
		U_5 - U_6	154.60	34.74	-10.27	3.13	0.00	0.90	1.00	31.26	-9.24	3.13	0.00	Vehicle	Vehicle	268.71	-----	4.88	26.44	21.5575	872.44	131.71	10.6276	5.4277	17.62	32.70	-734.93	14.00	0.38	16.00	0.38	3.50	0.38	16.00	136.00	224.00	37.33	-----	-----	42.67	-----	-----	9.33	-----	-----	9.91	16.52	-----	-----
		U_6 - U_7	288.38	65.61	-6.67	17.14	-4.31	0.90	1.00	59.05	-6.00	17.14	-4.31	Vehicle	Pedestrian	502.83	-----	6.75	31.69	24.9375	1045.69	131.71	10.6276	5.0620	18.90	32.66	-879.69	14.00	0.75	16.00	0.38	3.50	0.38	16.00	98.67	224.00	18.67	-----	-----	42.67	-----	-----	9.33	-----	-----	5.24	8.74	-----	-----
		U_7 - U_8	410.94	90.61	20.94	22.63	0.00	0.90	1.00	81.55	18.84	22.63	0.00	Vehicle	Vehicle	710.91	-----	9.25	43.73	34.4844	1443.24	131.71	10.6328	5.1288	18.66	32.67	-1214.44	14.00	1.00	16.00	0.50	4.00	0.56	16.00	74.22	224.00	14.00	-----	-----	32.00	-----	-----	7.11	-----	-----	5.14	8.57	-----	-----
		U_8 - U_9	311.57	41.94	25.92	12.90	6.19	0.90	1.00	37.74	23.33	12.90	6.19	Pedestrian	Vehicle	487.34	-----	7.25	36.98	29.7344	1220.49	131.71	10.6328	5.4935	17.42	32.71	-1028.34	14.00	0.44	16.00	0.50	4.00	0.56	16.00	110.22	224.00	32.00	-----	-----	32.00	-----	-----	7.11	-----	-----	9.91	12.39	-----	-----
		U_9 - U_{10}	78.52	42.52	-24.92	12.28	-6.79	0.90	1.00	38.27	-22.43	12.28	-6.79	Vehicle	Vehicle	184.99	-----	5.25	27.94	22.6875	921.94	131.71	10.6302	5.4354	17.60	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	-----	-----	10.67	-----	-----	9.89	16.48	-----	-----
		U_{10} - U_{11}	-141.43	40.31	-72.42	11.10	-18.41	0.90	1.00	36.28	-65.18	11.10	-18.41	Vehicle	Vehicle	-----	-325.09	4.88	27.94	23.0575	921.94	131.71	10.6328	5.4354	17.61	32.71	-776.65	14.00	0.38	16.00	0.38	4.00	0.38	16.00	138.67	224.00	37.33	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.20	7.00
		U_{11} - U_{12}	-338.03	37.37	-116.01	9.77	-27.93	0.90	1.00	33.63	-104.41	9.77	-27.93	Vehicle	Vehicle	-----	-665.66	7.13	38.00	30.8700	1254.00	131.71	10.6328	5.4357	17.60	32.71	-1056.38	14.00	0.50	16.00	0.56	4.00	0.50	16.00	100.44	224.00	28.00	43.07	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	2.73	4.55
		U_{12} - U_{13}	-480.08	32.89	-130.73	8.23	-34.32	0.90	1.00	29.60	-117.66	8.23	-34.32	Vehicle	Vehicle	-----	-879.04	10.88	53.38	42.4950	1761.38	131.71	10.6328	4.6393	20.63	32.60	-1478.81	14.00	1.33	16.00	0.56	4.00	0.50	16.00	65.42	224.00	10.49	44.42	Pass	28.44	50.00	Pass	8.00	12.00	Pass	-----	-----	3.35	5.59
		U_{13} - U_{14}	-570.65	28.09	-100.75	6.68	-37.21	0.90	1.00	25.28	-90.68	6.68	-37.21	Vehicle	Pedestrian	-----	-949.66	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	4.73	5.92
		U_{14} - U_{15}	-571.07	27.96	-136.09	6.65	-37.22	0.90	1.00	25.16	-122.48	6.65	-37.22	Vehicle	Vehicle	-----	-1007.77	13.13	62.19	49.0575	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.78	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.71	6.18
		U_{15} - U_{16}	-581.88	10.44	-125.09	0.00	-31.14	0.90	1.00	9.40	-112.58	0.00	-31.14	Vehicle	Vehicle	-----	-1000.37	12.50	62.19	49.6875	2052.19	131.71	10.6354	4.9784	19.23	32.65	-1725.77	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	44.94	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.97	6.62
		U_{16} - U_{17}	-539.46	9.48	-91.29	0.00	-28.33	0.90	1.00	8.53	-82.16	0.00	-28.33	Vehicle	Pedestrian	-----	-880.83	13.13	62.19	49.0575	2052.19	131.71	10.6328	4.9784	19.22	32.65	-1725.78	14.00	1.56	16.00	0.63	4.00	0.63	16.00	56.32	224.00	8.96	45.00	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	5.71	7.13
		U_{17} - U_{18}	-422.33	-79.04	10.66	-25.05	2.26	0.90	1.00	9.59	-71.14	2.26	-25.05	Vehicle	Pedestrian	-----	-705.33	9.25	45.56	36.3125	1503.56	131.71	10.6354	4.6005	20.81	32.59	-1262.08	14.00	1.15	16.00	0.50	4.00	0.38	16.00	77.74	224.00	12.20	45.00	Pass	32.00	50.00	Pass	8.00	12.00	Pass	-----	-----	4.56	5.70
		U_{18} - U_{19}	-286.19	-50.72	-15.87	-16.96	1.28	0.90	1.00	-14.29	-45.65	1.28	-16.96	Vehicle	Pedestrian	-----	-473.78	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	5.00	6.25
		U_{19} - U_{20}	-140.84	-6.41	-20.33	0.00	-8.13	0.90	1.00	-5.77	-18.29	0.00	-8.13	Vehicle	Pedestrian	-----	-226.02	5.75	31.69	25.9375	1045.69	131.71	10.6328	5.4029	17.71	32.70	-880.80	14.00	0.44	16.00	0.50	4.00	0.38	16.00	117.33	224.00	32.00	45.00	Pass	32.00	50.00	Pass	10.67	12.00	Pass	-----	-----	16.25	20.31
	Structure 3	U_0 - U_1	-147.44	4.59	-29.54	0.36	-4.88	0.90	1.00	4.13	-26.59	0.36	-4.88	Vehicle	Vehicle	-----	-249.28	4.88	30.19	25.3075	996.19	131.71	10.6328	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	11.28	18.80
		U_1 - U_2	-319.06	16.39	-71.51	1.96	-13.36	0.90	1.00	14.75	-64.36	1.96	-13.36	Vehicle	Vehicle	-----	-554.22	7.88	36.94	29.0575	1218.94	131.71	10.6328	6.0885	15.72	32.77	-1028.72	17.00	0.75	16.00	0.38	4.00	0.38	16.00	109.33	272.00	22.67	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	4.40	7.34
		U_2 - U_3	-460.91	29.66	-109.94	3.77	-20.95	0.90	1.00	26.70	-98.94	3.77	-20.95	Vehicle	Vehicle	-----	-813.56	11.38	50.23	38.8544	1657.74	131.71	10.6328	6.6459	14.40	32.80	-1400.65	17.00	0.56	16.00	0.50	4.00	0.50	16.00	95.35	272.00	30.22	44.79	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.74	6.23
		U_3 - U_4	-580.03	45.31	-147.96	5.92	-27.68	0.90	1.00	40.78	-133.16	5.92	-27.68	Vehicle	Vehicle	-----	-1042.56	13.44	62.61	49.1694	2066.11	131.71	10.6328	6.1128	15.65	32.77	-1743.79	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.17	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.43	5.72
		U_4 - U_5	-616.49	58.79	-169.36	7.86	-31.35	0.90	1.00	52.91	-152.43	7.86	-31.35	Vehicle	Vehicle	-----	-1131.69	15.14	69.44	54.2975	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.65	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.43	5.71
		U_5 - U_6	-604.71	72.36	-184.02	9.87	-32.88	0.90	1.00	65.12	-165.62	9.87	-32.88	Vehicle	Vehicle	-----	-1144.96	15.13	69.44	54.3075	2291.44	131.71	10.6328	5.9512	16.08	32.75	-1933.21	17.00	1.50	16.00	0.63	4.00	0.63	16.00	61.07	272.00	11.33	44.39	Pass	25.60	50.00	Pass	6.40	12.00	Pass	-----	-----	3.20	5.33
		U_6 - U_7	-514.78	82.51	-178.72	11.56	-31.23	0.90	1.00	74.26	-160.85	11.56	-31.23	Vehicle	Vehicle	-----	-1017.72	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.71	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.08	5.14
		U_7 - U_8	-512.83	82.58	-178.38	11.57	-31.18	0.90	1.00	74.33	-160.54	11.57	-31.18	Vehicle	Vehicle	-----	-1014.51	14.13	62.61	48.4794	2066.11	131.71	10.6354	6.1128	15.66	32.77	-1743.78	17.00	1.25	16.00	0.69	4.00	0.69	16.00	62.11	272.00	13.60	44.78	Pass	23.27	50.00	Pass	5.82	12.00	Pass	-----	-----	3.10	5.16
		U_8 - U_9	-373.51	91.48	-154.31	13.16	-27.41	0.90	1.00	82.33	-138.88	13.16	-27.41	Vehicle	Vehicle	-----	-786.47	11.38	52.56	41.1825	1734.56	131.71	10.6328	6.0992	15.69	32.77	-1463.92	17.00	1.06	16.00	0.50	4.00	0.63	16.00	76.80	272.00	16.00	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	3.25	5.42
		U_9 - U_{10}	-181.05	95.19	-50.72	14.25	-21.42	0.90	1.00	85.67	-45.65	14.25	-21.42	Vehicle	Pedestrian	-----	-344.35	7.75	41.31	33.5625	1363.31	131.71	10.6328	6.6991	14.28	32.81	-1152.00	17.00	0.44	16.00	0.50	4.00	0.63	16.00	122.51	272.00	38.86	45.00	Pass	32.00	50.00	Pass	6.40	12.00	Pass	-----	-----	8.41	10.51
		U_{10} - U_{11}	26.18	97.84	-45.68	15.21	-14.40	0.90	1.00	88.06	-41.12	15.21	-14.40	Vehicle	Pedestrian	224.82	-56.18	6.88	35.88	28.9950	1183.88	131.71	10.6302	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	45.00	Pass	42.67	50.00	Pass	8.00	-----	-----	6.03	10.04	11.46	14.33
		U_{11} - U_{12}	237.39	70.18	-34.18	10.86	0.00	0.90	1.00	63.16	-30.76	10.86	0.00	Vehicle	Vehicle	445.45	-----	6.50	35.88	29.3750	1183.88	131.71	10.6328	6.5957	14.51	32.80	-1000.19	17.00	0.44	16.00	0.38	4.00	0.50	16.00	136.38	272.00	38.86	-----	-----	42.67	-----	-----	8.00	-----	-----	6.40	10.66	-----	-----
		U_{12} - U_{13}	435.89	33.05	-24.06	15.82	0.56	0.90	1.00	29.74	-21.66	15.82	0.56	Pedestrian	Vehicle	640.69	-----	10.25	44.88	34.6250	1480.88	131.71	10.6276	6.0391	15.84	32.76	-1249.64	17.00	0.94	16.00	0.38	4.00	0.50	16.00	94.93	272.00	18.13	-----	-----	42.67	-----	-----	8.00	-----	-----	12.35	15.44	-----	-----
		U_{13} - U_{14}	595.84	129.55	21.51	24.32	0.00	0.90	1.00	116.59	19.36	24.32	0.00	Vehicle	Vehicle	1027.20	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	4.98	8.31	-----	-----
		U_{14} - U_{15}	615.53	65.33	54.59	13.42	8.77	0.90	1.00	58.79	49.13	13.42	8.77	Vehicle	Vehicle	927.58	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00	12.95	-----	-----	25.60	-----	-----	8.00	-----	-----	9.68	16.14	-----	-----
		U_{15} - U_{16}	486.15	71.71	88.43	14.17	3.08	0.90	1.00	79.59	64.54	14.17	3.08	Vehicle	Vehicle	804.43	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	5.93	9.88	-----	-----
		U_{16} - U_{17}	339.27	77.01	-13.73	14.66	-2.95	0.90	1.00	69.31	-12.36	14.66	-2.95	Vehicle	Vehicle	591.22	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	6.10	10.17	-----	-----
		U_{17} - U_{18}	192.13	82.64	-53.10	15.12	-9.49	0.90	1.00	74.37	-47.79	15.12	-9.49	Vehicle	Vehicle	410.91	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	4.63	7.72	-----	-----
		U_{18} - U_{19}	53.83	85.46	-88.80	15.12	-15.34	0.90	1.00	76.91	-79.92	15.12	-15.34	Vehicle	Vehicle	236.63	-103.17	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	45.00	Fail	42.67	50.00	Pass	10.67	12.00	Pass	5.56	9.26	5.26	8.77
		U_{19} - U_{20}	-58.94	88.05	-120.54	15.07	-19.84	0.90	1.00	79.24	-108.48	15.07	-19.84	Vehicle	Vehicle	95.07	-311.67	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	6.66	11.09	3.51	5.84
	Structure 2	U_{20} - U_{21}	-125.32	87.98	-125.82	14.77	-22.39	0.90	1.00	79.18	-113.24	14.77	-22.39	Vehicle	Vehicle	8.65	-408.27	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.46	14.11	3.77	6.28
		U_{21} - U_{22}	-146.72	87.13	-89.66	14.37	-22.74	0.90	1.00	78.41	-80.69	14.37	-22.74	Vehicle	Vehicle	-----	-365.57	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	5.13	8.55
		U_{22} - U_{23}	-146.49	86.99	-121.75	14.36	-22.72	0.90	1.00	78.29	-109.57	14.36	-22.72	Vehicle	Vehicle	-----	-427.84	8.75	39.06	30.3125	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	-----	-----	3.78	6.30
		U_{23} - U_{24}	-112.53	83.47	-66.03	13.88	-16.65	0.90	1.00	75.12	-59.43	13.88	-16.65	Vehicle	Vehicle	16.48	-275.04	8.38	39.06	30.6875	1289.06	131.71	10.6328	6.0387	15.85	32.76	-1087.77	17.00	0.81	16.00	0.38	4.00	0.38	16.00	105.85	272.00	20.92	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	8.82	14.70	7.31	12.19
		U_{24} - U_{25}	-36.03	79.54	-54.26	13.40	-15.01	0.90	1.00	71.59	-48.83	13.40	-15.01	Vehicle	Vehicle	108.28	-152.64	5.50	32.31	26.8125	1066.31	131.71	10.6328	6.4980	14.73	32.79	-900.70	17.00	0.44	16.00	0.38	4.00	0.38	16.00	141.71	272.00	38.86	45.00	Pass	42.67	50.00	Pass	10.67	12.00	Pass	7.18	11.96	8.07	13.45
		U_{25} - U_{26}	80.94	-5.61	-15.53	0.38	0.00	0.90	1.00	-5.04	-13.98	0.38	0.00	Vehicle	Vehicle	94.29	-----	4.88	30.19	25.3075	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	-----	-----	-----	-----
		U_{26} - U_{27}	220.82	35.39	-9.84	7.92	0.00	0.90	1.00	31.85	-8.85	7.92	0.00	Vehicle	Vehicle	356.07	-----	5.25	30.19	24.9375	996.19	131.71	10.6302	6.5806	14.54	32.80	-841.60	17.00	0.38	16.00	0.38	4.00	0.38	16.00	154.67	272.00	45.33	-----	-----	42.67	-----	-----	10.67	-----	-----	10.28	17.13	-----	-----
		U_{27} - U_{28}	363.48	72.63	-1.01	14.90	0.00	0.90	1.00	65.36	-0.91	14.90	0.00	Vehicle	Vehicle	614.15	-----	7.13	41.13	33.9950	1357.13	131.71	10.6276	6.4812	14.76	32.79	-1146.31	17.00	0.56	16.00	0.44	4.00	0.50	16.00	113.02	272.00	30.22	-----	-----	36.57	-----	-----	8.00	-----	-----	6.25	10.41	-----	-----
		U_{28} - U_{29}	503.92	4.42	10.56	21.74	3.11	0.90	1.00	9.50	3.98	21.74	3.11	Pedestrian	Pedestrian	705.85	-----	11.38	50.13	38.7500	1654.13	131.71	10.6276	6.0000	15.94	32.76	-1395.71	17.00	1.06	16.00	0.44	4.00	0.50	16.00	84.57	272.00	16.00	-----	-----	36.57	-----	-----	8.00	-----	-----	19.68	24.60	-----	-----
		U_{29} - U_{30}	616.62	127.28	-11.02	27.08	0.00	0.90	1.00	114.56	-9.92	27.08	0.00	Vehicle	Vehicle	1049.81	-----	13.75	61.63	47.8750	2033.63	131.71	10.6276	5.9779	16.00	32.76	-1715.83	17.00	1.31	16.00	0.63	4.00	0.50	16.00	67.50	272.00

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30; LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30; LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL$_{max}$ (kips)	LL$_{min}$ (kips)	Pedestrian Load$_{MAX}$	Pedestrian Load$_{MIN}$	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL$_{MAX}$	Lane Reduction and Impact LL$_{MIN}$	Impact & Pedestrian Load$_{MAX}$	Impact & Pedestrian Load$_{MIN}$	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capacity in Tension: A$_{deduct}$ (in^2) **	A$_{gross}$ (in^2)	A$_{net}$ (in^2)	C$_{Nominal}$ (kips)	Member Capacity in Compression: C$_c$	L (feet)	r$_{min}$ (in)	KL/r$_{min}$ ***	F$_{crit}$ **** (ksi)	C$_{nominal}$ (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Lower Chord	Structure 1	L$_0$- L$_1$	-1.94	0.68	-5.28	0.37	-2.06	0.90	1.00	0.61	-4.75	0.37	-2.06	Pedestrian	Pedestrian	-----	-13.59	1.30	19.80	18.5000	653.40	131.71	10.6302	5.6265	17.00	32.72	-550.76	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	-----	-----	**49.51**	**61.88**
		L$_1$ - L$_2$	67.93	-18.03	37.67	-3.35	9.23	0.90	1.00	33.91	-16.23	9.23	-3.35	Vehicle	Vehicle	161.77	-----	1.95	19.80	17.8500	653.40	131.71	10.6302	5.6265	17.03	32.72	-550.75	15.00	0.40	3.40	0.65	3.40	0.65	16.00	95.92	240.00	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**7.69**	**12.82**	-----	-----
		L$_2$ - L$_3$	78.83	-38.85	76.11	-7.39	15.48	0.90	1.00	68.50	-34.97	15.48	-7.39	Vehicle	Vehicle	250.89	-----	1.30	26.34	25.0400	869.22	131.71	10.6458	5.3341	17.96	32.69	-731.97	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	-----	-----	5.57	-----	-----	5.57	-----	-----	**5.17**	**8.61**	-----	-----
		L$_3$ - L$_4$	39.11	-53.62	72.66	-10.83	18.09	0.90	1.00	65.40	-48.26	18.09	-10.83	Vehicle	Vehicle	192.53	-53.73	1.95	26.34	24.3900	869.22	131.71	10.6458	5.3341	18.08	32.69	-731.87	15.00	0.62	3.62	0.65	3.62	0.65	16.00	70.81	240.00	24.27	45.00	Pass	5.57	12.00	Pass	5.57	12.00	Pass	**5.78**	**9.63**	**7.49**	**12.48**
		L$_4$ - L$_5$	-166.44	-35.97	16.99	-16.91	10.96	0.90	1.00	15.29	-32.37	10.96	-16.91	Pedestrian	Pedestrian	-----	-296.45	1.95	23.40	21.4500	772.20	131.71	10.7161	5.4472	17.71	32.70	-650.44	15.00	0.52	3.52	0.65	3.52	0.65	16.25	79.35	243.75	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**5.42**	**6.78**
		L$_5$ - L$_6$	-301.30	-67.14	13.46	-15.71	0.00	0.90	1.00	12.11	-60.43	0.00	-15.71	Vehicle	Vehicle	-----	-522.61	4.63	30.90	26.2700	1019.70	131.71	10.7188	5.0381	19.40	32.64	-857.34	15.00	0.77	3.52	0.65	3.52	0.65	16.25	60.62	243.75	19.48	43.83	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**3.56**	**5.93**
		L$_6$ - L$_7$	-439.01	-8.88	-86.43	-4.99	-21.52	0.90	1.00	-7.99	-77.78	-4.99	-21.52	Pedestrian	Vehicle	-----	-739.24	6.81	44.29	37.4804	1461.58	131.71	10.8594	4.9526	19.73	32.63	-1228.40	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	44.12	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.90**	**6.50**
		L$_7$ - L$_8$	-551.71	-115.97	-8.23	-35.56	0.00	0.90	1.00	-7.41	-104.37	0.00	-35.56	Vehicle	Pedestrian	-----	-944.60	8.81	56.29	47.4804	1857.58	131.71	10.8594	4.6752	20.77	32.59	-1559.31	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	44.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**3.70**	**4.63**
		L$_8$ - L$_9$	-570.55	-31.91	-94.13	-11.71	-25.77	0.90	1.00	-28.72	-84.72	-11.71	-25.77	Pedestrian	Vehicle	-----	-925.26	8.16	56.29	48.1304	1857.58	131.71	10.7891	4.6752	20.76	32.59	-1559.32	15.00	1.62	3.72	0.65	3.72	0.65	15.50	41.46	232.50	9.28	44.46	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**4.45**	**7.42**
		L$_9$ - L$_{10}$	-355.55	-33.75	-48.22	-11.67	-13.03	0.90	1.00	-30.37	-43.40	-11.67	-13.03	Pedestrian	Vehicle	-----	-556.24	6.81	44.29	37.4804	1461.58	131.71	10.7865	4.9526	19.38	32.64	-1228.89	15.00	1.22	3.72	0.65	3.72	0.65	15.50	47.56	232.50	12.34	45.00	Pass	5.72	12.00	Pass	5.72	12.00	Pass	-----	-----	**8.15**	**13.59**
		L$_{10}$ - L$_{11}$	-118.56	-35.32	9.00	-10.69	-1.73	0.90	1.00	8.10	-31.78	-1.73	-10.69	Vehicle	Pedestrian	-----	-223.15	1.30	23.40	22.1000	772.20	131.71	10.6667	5.4472	17.62	32.70	-650.50	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	45.00	Pass	5.42	12.00	Pass	5.42	12.00	Pass	-----	-----	**7.19**	**8.99**
		L$_{11}$ - L$_{12}$	103.33	-32.99	56.90	-9.47	9.97	0.90	1.00	51.21	-29.69	9.97	-9.47	Vehicle	Vehicle	245.28	-----	1.95	23.40	21.4500	772.20	131.71	10.6641	5.4472	17.57	32.71	-650.53	15.00	0.52	3.52	0.65	3.52	0.65	16.50	79.35	247.50	28.85	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.75**	**9.58**	-----	-----
		L$_{12}$ - L$_{13}$	300.47	-30.93	106.85	-8.15	17.86	0.90	1.00	96.17	-27.84	17.86	-8.15	Vehicle	Vehicle	598.96	-----	5.38	38.40	33.0200	1267.20	131.71	10.6354	5.0404	18.99	32.66	-1065.92	15.00	1.02	3.52	0.65	3.52	0.65	14.38	51.07	215.63	14.71	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.21**	**7.01**	-----	-----
		L$_{13}$ - L$_{14}$	441.01	-26.49	121.22	-6.62	24.18	0.90	1.00	109.10	-23.84	24.18	-6.62	Vehicle	Vehicle	809.70	-----	7.78	51.53	43.7450	1700.33	131.71	10.6354	4.8693	19.63	32.63	-1429.22	15.00	1.46	3.52	0.65	3.52	0.65	14.38	42.24	215.63	10.29	-----	-----	5.42	-----	-----	5.42	-----	-----	**4.77**	**7.95**	-----	-----
		L$_{14}$ - L$_{15}$	546.80	-17.35	120.29	0.00	21.12	0.90	1.00	108.26	-15.62	21.12	0.00	Vehicle	Vehicle	945.40	-----	9.53	62.03	52.4950	2046.83	131.71	10.6224	4.6613	20.51	32.60	-1718.71	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**5.70**	**9.49**	-----	-----
		L$_{15}$ - L$_{16}$	505.90	-16.44	103.07	0.00	18.34	0.90	1.00	92.77	-14.79	18.34	0.00	Vehicle	Vehicle	858.66	-----	8.88	62.03	53.1450	2046.83	131.71	10.6224	4.6613	20.63	32.60	-1718.46	15.00	1.81	3.52	0.65	3.52	0.65	14.38	38.26	215.63	8.30	-----	-----	5.42	-----	-----	5.42	-----	-----	**6.91**	**11.52**	-----	-----
		L$_{16}$ - L$_{17}$	398.64	78.81	-6.95	0.00	11.94	0.90	1.00	70.93	-6.25	11.94	0.00	Vehicle	Vehicle	671.91	-----	7.30	47.93	40.6250	1581.53	131.71	10.6849	4.9074	19.60	32.63	-1329.42	15.00	1.34	3.40	0.65	3.40	0.65	14.38	43.35	215.63	11.21	-----	-----	5.23	-----	-----	5.23	-----	-----	**6.92**	**11.53**	-----	-----
		L$_{17}$ - L$_{18}$	263.76	49.84	60.96	4.73	0.15	0.90	1.00	54.86	44.86	4.73	0.15	Vehicle	Vehicle	461.75	-----	4.90	34.80	29.9000	1148.40	131.71	10.6849	5.1082	19.04	32.66	-965.94	15.00	0.90	3.40	0.65	3.40	0.65	14.38	54.26	215.63	16.67	-----	-----	5.23	-----	-----	5.23	-----	-----	**6.78**	**11.29**	-----	-----
		L$_{18}$ - L$_{19}$	118.86	25.73	0.46	-3.28	0.70	0.90	1.00	23.16	0.41	0.70	-3.28	Vehicle	Pedestrian	204.69	-----	3.70	19.80	16.1000	653.40	131.71	10.8047	5.6265	17.29	32.72	-550.61	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	-----	-----	5.23	-----	-----	5.23	-----	-----	**9.94**	**16.57**	-----	-----
		L$_{19}$ - L$_{20}$	-23.25	2.08	34.83	-12.00	1.27	0.90	1.00	31.35	1.87	1.27	-12.00	Vehicle	Pedestrian	37.69	-46.68	1.95	17.93	15.9750	591.53	131.71	10.8073	5.7170	17.13	32.72	-498.54	15.00	0.40	3.40	0.65	3.40	0.65	16.50	95.92	247.50	37.50	45.00	Pass	5.23	12.00	Pass	5.23	12.00	Pass	**9.15**	**15.26**	-----	-----
		L$_0$- L$_1$	-35.95	5.09	-16.52	1.19	-5.13	0.90	1.00	4.58	-14.87	1.19	-5.13	Vehicle	Pedestrian	-----	-79.24	1.88	24.95	23.0700	823.35	131.71	10.8828	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	45.00	Pass	6.32	12.00	Pass	6.32	12.00	Pass	-----	-----	**19.96**	**24.95**
		L$_1$ - L$_2$	132.83	-4.26	21.02	-0.07	2.94	0.90	1.00	18.92	-3.83	2.94	-0.07	Vehicle	Vehicle	213.66	-----	1.88	24.95	23.0700	823.35	131.71	10.8802	6.6341	14.76	32.79	-695.45	18.00	0.45	3.95	0.63	3.95	0.63	16.63	105.28	299.25	40.00	-----	-----	6.32	-----	-----	6.32	-----	-----	**15.87**	**26.46**	-----	-----
		L$_2$ - L$_3$	304.11	-18.09	68.95	-1.80	10.53	0.90	1.00	62.06	-16.28	10.53	-1.80	Vehicle	Vehicle	529.80	-----	6.20	38.45	32.2500	1268.85	131.71	10.7370	6.1675	15.67	32.77	-1070.89	18.00	0.83	3.95	0.63	3.95	0.63	15.88	68.92	285.75	21.82	-----	-----	6.32	-----	-----	6.32	-----	-----	**6.50**	**10.83**	-----	-----
		L$_3$ - L$_4$	445.92	-31.50	107.52	-3.63	18.16	0.90	1.00	96.77	-28.35	18.16	-3.63	Vehicle	Vehicle	789.36	-----	9.45	51.58	42.1250	1701.98	131.71	10.7370	5.7558	16.79	32.73	-1434.93	18.00	1.19	3.95	0.63	3.95	0.63	15.88	55.54	285.75	15.13	-----	-----	6.32	-----	-----	6.32	-----	-----	**5.35**	**8.92**	-----	-----
		L$_4$ - L$_5$	567.84	-50.18	151.77	-6.10	24.82	0.90	1.00	136.60	-45.16	24.82	-6.10	Vehicle	Vehicle	1034.15	-----	11.00	65.00	54.0000	2145.00	131.71	10.6406	5.6658	16.90	32.73	-1808.24	18.00	1.56	4.00	0.63	4.00	0.63	14.50	48.64	261.00	11.52	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.75**	**7.92**	-----	-----
		L$_5$ - L$_6$	603.64	-63.75	173.09	-8.06	28.47	0.90	1.00	155.78	-57.37	28.47	-8.06	Vehicle	Vehicle	1122.25	-----	12.75	70.63	57.8750	2330.63	131.71	10.6406	5.5712	17.19	32.72	-1964.16	18.00	1.72	4.00	0.63	4.00	0.63	14.50	46.55	261.00	10.47	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.58**	**7.63**	-----	-----
		L$_6$ - L$_7$	599.48	-80.60	194.19	-10.41	30.26	0.90	1.00	174.77	-72.54	30.26	-10.41	Vehicle	Vehicle	1158.00	-----	12.35	71.60	59.2500	2362.80	131.71	10.6224	5.5468	17.24	32.72	-1991.18	18.00	1.75	4.10	0.63	4.10	0.63	14.75	46.86	265.50	10.31	-----	-----	6.56	-----	-----	6.56	-----	-----	**4.18**	**6.97**	-----	-----
		L$_7$ - L$_8$	373.94	-99.58	165.39	-13.66	24.93	0.90	1.00	148.85	-89.62	24.93	-13.66	Vehicle	Vehicle	808.63	-----	8.60	52.85	44.2500	1744.05	131.71	10.6224	5.9187	16.15	32.75	-1471.29	18.00	1.23	4.10	0.63	4.10	0.63	14.75	55.63	265.50	14.69	-----	-----	6.56	-----	-----	6.56	-----	-----	**3.90**	**6.50**	-----	-----
		L$_8$ - L$_9$	195.71	-106.81	69.96	-15.12	19.52	0.90	1.00	62.97	-96.13	19.52	-15.12	Vehicle	Vehicle	390.85	-----	7.95	43.33	35.3750	1429.73	131.71	10.6354	5.9170	16.18	32.75	-1206.10	18.00	0.96	4.20	0.63	4.20	0.63	16.63	64.36	299.25	18.74	-----	-----	6.72	-----	-----	6.72	-----	-----	**8.61**	**14.36**	-----	-----
		L$_9$ - L$_{10}$	-13.21	-109.67	65.23	-7.60	12.45	0.90	1.00	58.71	-98.70	12.45	-7.60	Vehicle	Vehicle	110.03	-231.03	1.88	33.95	32.0700	1120.35	131.71	10.6380	6.2850	15.23	32.78	-945.93	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	**8.94**	**14.90**	**4.34**	**7.24**
		L$_{10}$ - L$_{11}$	-217.32	-69.17	56.20	-15.65	0.00	0.90	1.00	50.58	-62.25	0.00	-15.65	Vehicle	Vehicle	-----	-417.39	1.88	30.35	28.4700	1001.55	131.71	10.7318	6.4019	15.09	32.78	-845.73	18.00	0.60	4.10	0.63	4.10	0.63	16.63	86.24	299.25	30.00	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**4.18**	**6.96**
		L$_{11}$ - L$_{12}$	-419.93	-105.13	46.19	-23.34	0.00	0.90	1.00	41.57	-94.62	0.00	-23.34	Vehicle	Vehicle	-----	-750.92	7.48	43.48	35.9950	1434.68	131.71	10.7318	5.8542	16.50	32.74	-1209.91	18.00	0.96	4.10	0.63	4.10	0.63	16.63	63.56	299.25	18.66	43.37	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.24**	**5.40**
		L$_{12}$ - L$_{13}$	-591.41	-9.58	-108.84	-7.09	-18.75	0.90	1.00	-8.62	-97.95	-7.09	-18.75	Pedestrian	Vehicle	-----	-981.06	9.73	59.10	49.3700	1950.30	131.71	10.9531	5.8186	16.94	32.73	-1644.04	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	44.24	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**4.12**	**6.87**
		L$_{13}$ - L$_{14}$	-724.23	-152.30	-9.65	-35.12	0.00	0.90	1.00	-8.69	-137.07	0.00	-35.12	Vehicle	Vehicle	-----	-1238.48	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.11	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.46**	**5.77**
		L$_{14}$ - L$_{15}$	-747.05	10.77	-163.72	0.00	-36.29	0.90	1.00	9.69	-147.34	0.00	-36.29	Vehicle	Vehicle	-----	-1290.40	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	42.24	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.13**	**5.21**
		L$_{15}$ - L$_{16}$	-632.15	-36.58	-90.93	-9.38	-12.11	0.90	1.00	-32.93	-81.84	-9.38	-12.11	Vehicle	Vehicle	-----	-999.11	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	44.02	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**4.72**	**7.86**
		L$_{16}$ - L$_{17}$	-488.62	-45.12	-50.47	-9.25	-11.44	0.90	1.00	-40.61	-45.42	-9.25	-11.44	Vehicle	Vehicle	-----	-733.63	8.45	48.95	40.5000	1615.35	131.71	10.8490	5.7569	16.96	32.73	-1361.66	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**7.38**	**12.30**
		L$_{17}$ - L$_{18}$	-336.98	-50.49	-12.94	-9.73	-4.53	0.90	1.00	-11.65	-45.44	-4.53	-9.73	Pedestrian	Vehicle	-----	-536.52	1.88	33.95	32.0700	1120.35	131.71	10.8490	6.2850	15.54	32.77	-945.67	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	45.00	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**5.16**	**8.59**
		L$_{18}$ - L$_{19}$	-183.61	-58.12	33.64	-9.59	1.37	0.90	1.00	30.27	-52.30	1.37	-9.59	Vehicle	Vehicle	-----	-352.02	1.25	26.75	25.5000	882.75	131.71	10.6406	5.6472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**4.47**	**7.46**
		L$_{19}$ - L$_{20}$	-45.77	-60.93	69.24	-9.58	7.21	0.90	1.00	62.32	-54.83	7.21	-9.58	Vehicle	Vehicle	75.52	-178.30	1.88	26.75	24.8700	882.75	131.71	10.6380	5.6472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**6.98**	**11.63**	**5.78**	**9.63**
	Structure 2	L$_{20}$ - L$_{21}$	68.00	-65.95	107.68	-9.12	11.07	0.90	1.00	96.92	-59.36	11.07	-9.12	Vehicle	Vehicle	298.38	-40.21	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**5.55**	**9.25**	**8.92**	**14.86**
		L$_{21}$ - L$_{22}$	133.90	-65.93	112.78	-8.82	13.61	0.90	1.00	101.50	-59.34	13.61	-8.82	Vehicle	Vehicle	394.00	-----	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	**4.91**	**8.18**	-----	-----
		L$_{22}$ - L$_{23}$	122.50	-64.70	97.66	-7.58	8.54	0.90	1.00	87.89	-58.23	8.54	-7.58	Vehicle	Vehicle	349.68	-----	6.75	38.00	31.2500	1254.00	131.71	10.6224	6.1781	15.47	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	-----	-----	6.40	-----	-----	6.40	-----	-----	**5.75**	**9.58**	-----	-----
		L$_{23}$ - L$_{24}$	46.70	-60.86	59.20	-7.09	6.92	0.90	1.00	53.28	-54.78	6.92	-7.09	Vehicle	Vehicle	176.15	-57.98	6.13	38.00	31.8700	1254.00	131.71	10.6250	6.1781	15.48	32.77	-1058.54	18.00	0.81	4.00	0.63	4.00	0.63	16.00	69.91	288.00	22.15	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**10.34**	**17.23**	**9.43**	**15.72**
		L$_{24}$ - L$_{25}$	-66.76	7.88	69.97	-4.28	3.32	0.90	1.00	62.97	7.09	3.32	-4.28	Vehicle	Vehicle	49.65	-71.43	1.88	26.75	24.8700	882.75	131.71	10.6380	6.5472	14.62	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	**7.11**	**11.84**	-----	-----
		L$_{25}$ - L$_{26}$	-205.83	-32.97	64.62	-11.78	0.00	0.90	1.00	58.16	-29.68	0.00	-11.78	Vehicle	Pedestrian	-----	-334.95	1.25	26.75	25.5000	882.75	131.71	10.6406	6.5472	14.63	32.80	-745.71	18.00	0.50	4.00	0.63	4.00	0.63	16.63	97.60	299.25	36.00	45.00	Pass	6.40	12.00	Pass	6.40	12.00	Pass	-----	-----	**7.10**	**8.87**
		L$_{26}$ - L$_{27}$	-350.61	-67.85	-62.32	-18.88	0.00	0.90	1.00	-56.08	-61.07	0.00	-18.88	Vehicle	Vehicle	-----	-588.10	1.88	33.95	32.0700	1120.35	131.71	10.7318	6.2850	15.37	32.78	-945.81	18.00	0.70	4.20	0.63	4.20	0.63	16.63	78.31	299.25	25.71	43.31	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.70**	**6.17**
		L$_{27}$ - L$_{28}$	-494.76	-101.25	51.24	-25.89	0.00	0.90	1.00	46.12	-91.12	0.00	-25.89	Vehicle	Vehicle	-----	-840.63	8.45	48.95	40.5000	1615.35	131.71	10.7318	5.7569	16.78	32.73	-1361.91	18.00	1.12	4.20	0.63	4.20	0.63	16.63	59.12	299.25	16.12	43.50	Pass	6.72	12.00	Pass	6.72	12.00	Pass	-----	-----	**3.64**	**6.07**
		L$_{28}$ - L$_{29}$	-620.88	-65.67	-37.54	-21.97	-5.04	0.90	1.00	-33.79	-59.10	-5.04	-21.97	Vehicle	Pedestrian	-----	-938.88	9.73	59.60	49.8700	1966.80	131.71	10.9531	5.8413	16.88	32.73	-1658.06	18.00	1.41	4.10	0.63	4.10	0.63	15.00	51.73	270.00	12.74	45.00	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**6.46**	**8.07**
		L$_{29}$ - L$_{30}$	-716.82	-140.75	-33.01	-36.30	0.00	0.90	1.00	-29.71	-126.67	0.00	-36.30	Vehicle	Vehicle	-----	-1206.32	11.98	70.85	58.8700	2338.05	131.71	10.9531	5.6285	17.51	32.71	-1969.77	18.00	1.73	4.10	0.63	4.10	0.63	15.00	47.11	270.00	10.43	43.68	Pass	6.56	12.00	Pass	6.56	12.00	Pass	-----	-----	**3.

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors — DL Factor: 1.30 — LL Factor: 2.17
Pedestrian Load Factors — DL Factor: 1.30 — LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	Impact & Pedestrian Load MAX	Impact & Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capicity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Verticals	Structure 1	U_0 - L_0	-93.63	-59.06	19.00	-12.32	3.44	0.90	1.00	17.10	-53.15	3.44	-12.32	Vehicle	Vehicle	-----	-236.88	1.63	16.85	15.2186	556.00	131.71	9.3438	1.9682	42.73	31.26	-447.73	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	2.83	4.72
		U_1 - L_1	-46.50	-39.66	16.45	-9.05	2.93	0.90	1.00	14.80	-35.69	2.93	-9.05	Vehicle	Vehicle	-----	-137.78	0.00	16.85	16.8486	556.00	131.71	7.2395	1.9682	33.10	31.96	-457.67	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	5.14	8.56
		U_2 - L_2	-0.07	-28.58	14.71	-5.68	2.84	0.90	1.00	13.24	-25.73	2.84	-5.68	Vehicle	Vehicle	28.60	-55.83	0.00	16.85	16.8486	556.00	131.71	7.2605	1.9682	33.20	31.95	-457.59	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	19.38	32.30	8.21	13.68
		U_3 - L_3	39.61	-3.84	18.50	-2.12	2.70	0.90	1.00	16.65	-3.46	2.70	-2.12	Vehicle	Pedestrian	87.57	-----	0.00	16.85	16.8486	556.00	131.71	7.5521	1.9682	34.53	31.87	-456.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	13.99	23.31	-----	-----
		U_4 - L_4	-30.21	0.00	-7.51	0.00	-3.47	0.90	1.00	0.00	-6.76	0.00	-3.47	Vehicle	Pedestrian	-----	-55.88	0.00	16.85	16.8486	556.00	131.71	7.9063	1.9682	36.15	31.76	-454.80	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	25.01	31.26
		U_5 - L_5	-130.50	1.41	-37.01	0.00	-10.24	0.90	1.00	1.27	-33.31	0.00	-10.24	Vehicle	Vehicle	-----	-241.83	3.18	20.66	17.4844	681.93	131.71	8.9270	2.0011	40.15	31.47	-552.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	5.31	8.85
		U_6 - L_6	-158.19	6.08	-46.57	0.00	-13.06	0.90	1.00	5.47	-41.91	0.00	-13.06	Vehicle	Vehicle	-----	-296.46	3.13	24.86	21.7294	820.36	131.71	9.9479	2.0895	42.85	31.25	-660.40	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	45.00	Pass	8.89	12.00	Pass	-----	-----	5.01	8.35
		U_7 - L_7	-152.33	10.78	-41.93	0.00	-13.25	0.90	1.00	9.70	-37.74	0.00	-13.25	Vehicle	Pedestrian	-----	-280.87	2.88	23.11	20.2294	762.61	131.71	11.7292	2.0414	51.71	30.46	-598.26	16.25	0.44	10.00	0.50	-----	-----	16.25	-----	-----	37.14	45.00	Pass	10.00	12.00	Pass	-----	-----	4.83	6.04
		U_8 - L_8	-455.44	-75.60	-24.17	-18.98	-12.74	0.90	1.00	-21.75	-68.04	-12.74	-18.98	Pedestrian	Vehicle	-----	-739.48	3.28	51.23	47.9548	1690.75	131.71	16.6563	4.0434	37.07	31.69	-1380.20	15.25	0.82	15.64	1.31	-----	-----	15.25	-----	-----	18.60	45.00	Pass	5.96	12.00	Pass	-----	-----	5.35	8.91
		U_9 - L_9	-287.50	-69.04	3.30	-18.21	0.00	0.90	1.00	2.97	-62.13	0.00	-18.21	Vehicle	Vehicle	-----	-508.37	3.50	31.56	28.0625	1041.56	131.71	12.1563	2.5582	42.77	31.26	-838.65	16.25	0.50	12.00	0.63	-----	-----	16.25	-----	-----	32.50	44.91	Pass	9.60	12.00	Pass	-----	-----	3.45	5.76
		U_{10} - L_{10}	-276.27	-69.39	-1.92	-16.18	-1.37	0.90	1.00	-1.73	-62.45	-1.37	-16.18	Pedestrian	Vehicle	-----	-494.45	2.76	36.13	33.3715	1192.34	131.71	10.7083	2.3777	40.53	31.44	-965.49	16.16	0.83	11.50	0.80	-----	-----	16.16	-----	-----	19.50	45.00	Pass	7.23	12.00	Pass	-----	-----	4.48	7.47
		U_{11} - L_{11}	-232.54	-63.41	1.88	-14.42	0.00	0.90	1.00	1.69	-57.07	0.00	-14.42	Vehicle	Vehicle	-----	-425.96	0.00	30.63	30.6305	1010.81	131.71	10.1145	2.8427	32.02	32.02	-833.79	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	4.30	7.16
		U_{12} - L_{12}	-178.38	-53.56	1.18	-11.20	0.00	0.90	1.00	1.06	-48.20	0.00	-11.20	Vehicle	Vehicle	-----	-336.33	1.00	25.98	24.9844	857.49	131.71	9.5729	2.0643	41.74	31.34	-692.27	16.25	0.50	10.00	0.56	-----	-----	16.25	-----	-----	32.50	45.00	Pass	8.89	12.00	Pass	-----	-----	4.41	7.35
		U_{13} - L_{13}	-127.70	-22.73	1.07	-7.88	0.00	0.90	1.00	0.96	-20.46	0.00	-7.88	Vehicle	Pedestrian	-----	-212.06	0.00	18.61	18.6095	614.11	131.71	9.4062	1.9845	42.66	31.27	-494.62	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	7.14	8.92
		U_{14} - L_{14}	-30.38	-7.66	-8.16	-3.03	0.00	0.90	1.00	-6.90	-7.35	0.00	-3.03	Vehicle	Pedestrian	-----	-56.36	0.00	16.85	16.8486	556.00	131.71	9.2605	1.9682	42.35	31.29	-448.18	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	24.23	30.28
		U_{15} - L_{15}	-28.93	6.52	-20.81	1.55	-4.53	0.90	1.00	5.87	-18.73	1.55	-4.53	Vehicle	Vehicle	-----	-78.18	0.00	16.85	16.8486	556.00	131.71	9.6355	1.9682	44.06	31.15	-446.16	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	10.07	16.78
		U_{16} - L_{16}	-75.99	6.38	-26.54	1.39	-7.07	0.90	1.00	5.74	-23.89	1.39	-7.07	Vehicle	Vehicle	-----	-150.54	0.00	16.85	16.8486	556.00	131.71	10.0651	1.9682	46.02	30.99	-443.75	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	6.67	11.11
		U_{17} - L_{17}	-161.81	6.95	-40.00	1.30	-10.66	0.90	1.00	6.25	-36.00	1.30	-10.66	Vehicle	Vehicle	-----	-288.35	0.00	20.66	20.0644	681.93	131.71	11.5312	2.0011	51.86	30.44	-534.70	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	45.00	Pass	5.37	12.00	Pass	-----	-----	4.16	6.93
		U_{18} - L_{18}	-190.09	5.96	-41.75	1.12	-12.69	0.90	1.00	5.37	-37.57	1.12	-12.69	Vehicle	Pedestrian	-----	-328.80	0.00	25.63	25.6315	845.84	131.71	13.0000	2.8057	41.70	31.35	-682.93	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	45.00	Pass	7.23	12.00	Pass	-----	-----	5.34	6.67
		U_{19} - L_{19}	-228.09	5.11	-43.24	0.97	-14.99	0.90	1.00	4.60	-38.92	0.97	-14.99	Vehicle	Pedestrian	-----	-384.11	0.00	30.63	30.6305	1010.81	131.71	15.2813	2.8427	48.38	30.77	-801.22	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	5.76	7.20
		U_{20} - L_{20}	-242.54	4.59	-42.25	0.95	-15.62	0.90	1.00	4.13	-38.02	0.95	-15.62	Vehicle	Pedestrian	-----	-402.46	0.00	27.86	27.8600	919.38	131.71	20.3229	2.7881	65.60	28.91	-684.53	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	4.24	5.30
	Structure 2	U_0 - L_0	-302.99	-78.50	16.99	-15.08	2.22	0.90	1.00	15.29	-70.65	2.22	-15.08	Vehicle	Vehicle	-----	-546.97	0.00	33.27	33.2657	1097.77	131.71	19.1510	2.8573	60.32	29.54	-835.23	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	44.45	Pass	5.62	12.00	Pass	-----	-----	2.88	4.81
		U_1 - L_1	-268.80	-68.22	17.28	-13.67	2.12	0.90	1.00	15.55	-61.40	2.12	-13.67	Vehicle	Vehicle	-----	-482.46	0.00	33.27	33.2657	1097.77	131.71	14.8594	2.8573	46.80	30.92	-874.18	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	3.94	6.57
		U_2 - L_2	-220.88	-63.77	18.55	-12.32	2.34	0.90	1.00	16.70	-57.39	2.34	-12.32	Vehicle	Vehicle	-----	-411.50	0.00	27.98	27.9777	923.26	131.71	12.9010	2.8289	41.04	31.40	-746.67	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	3.70	6.16
		U_3 - L_3	-175.24	-57.11	19.88	-10.35	2.49	0.90	1.00	17.89	-51.40	2.49	-10.35	Vehicle	Vehicle	-----	-339.19	0.00	22.73	22.7330	750.19	131.71	11.7109	2.0170	52.26	30.40	-587.47	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	45.00	Pass	4.91	12.00	Pass	-----	-----	3.23	5.38
		U_4 - L_4	-82.09	-38.79	17.07	-6.62	2.21	0.90	1.00	15.36	-34.91	2.21	-6.62	Vehicle	Vehicle	-----	-182.35	0.00	16.85	16.8486	556.00	131.71	10.5443	1.9682	48.22	30.79	-440.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	4.42	7.36
		U_5 - L_5	-19.91	-27.37	16.84	-4.16	2.23	0.90	1.00	15.16	-24.63	2.23	-4.16	Vehicle	Vehicle	6.96	-79.24	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	17.72	29.53	7.81	13.02
		U_6 - L_6	60.32	-7.57	12.21	-0.47	1.75	0.90	1.00	10.98	-6.81	1.75	-0.47	Vehicle	Vehicle	102.21	-----	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	20.07	33.45	-----	-----
		U_7 - L_7	-41.78	-0.92	-6.63	0.00	-2.49	0.90	1.00	-0.83	-5.97	0.00	-2.49	Vehicle	Pedestrian	-----	-68.05	0.00	16.85	16.8486	556.00	131.71	10.2500	1.9682	46.87	30.91	-442.68	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	28.27	35.33
		U_8 - L_8	-189.01	0.00	-40.85	0.00	-8.38	0.90	1.00	0.00	-36.77	0.00	-8.38	Vehicle	Vehicle	-----	-325.38	3.13	24.75	21.6200	816.75	131.71	10.8151	6.4745	15.03	32.79	-689.71	15.75	0.44	10.00	0.56	-----	-----	15.75	-----	-----	36.00	45.00	Pass	8.89	12.00	Pass	-----	-----	5.57	9.29
		U_9 - L_9	-254.00	1.59	-56.93	0.00	-10.55	0.90	1.00	1.43	-51.24	0.00	-10.55	Vehicle	Vehicle	-----	-441.21	0.00	33.27	33.2657	1097.77	131.71	11.3776	2.8573	35.84	31.78	-898.56	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	5.12	8.53
		U_{10} - L_{10}	-290.02	3.58	-67.03	0.00	-12.18	0.90	1.00	3.22	-60.32	0.00	-12.18	Vehicle	Vehicle	-----	-507.72	2.42	38.13	35.7105	1258.31	131.71	12.2526	2.5559	43.14	31.23	-1012.17	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	4.86	8.10
		U_{11} - L_{11}	-312.19	10.32	-68.20	0.00	-12.59	0.90	1.00	9.29	-61.38	0.00	-12.59	Vehicle	Vehicle	-----	-538.83	2.42	38.13	35.7105	1258.31	131.71	14.0365	2.5559	49.43	30.68	-994.25	16.48	0.81	11.58	0.96	-----	-----	16.48	-----	-----	20.31	45.00	Pass	6.06	12.00	Pass	-----	-----	4.42	7.37
		U_{12} - L_{12}	-327.27	15.51	-64.90	-0.93	-13.01	0.90	1.00	13.96	-58.41	-0.93	-13.01	Vehicle	Vehicle	-----	-551.99	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	4.87	8.12
		U_{13} - L_{13}	-277.23	21.22	-51.80	0.00	-11.39	0.90	1.00	19.10	-46.62	0.00	-11.39	Vehicle	Vehicle	-----	-461.42	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	5.31	8.86
		U_{14} - L_{14}	-505.47	-53.48	-34.33	-11.35	-9.95	0.90	1.00	-30.90	-48.13	-9.95	-11.35	Vehicle	Vehicle	-----	-761.40	11.02	53.76	42.7431	1774.18	131.71	25.6094	4.0518	56.88	29.92	-1367.40	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	6.81	11.35
		U_{15} - L_{15}	-232.92	-65.77	11.60	-11.17	0.00	0.90	1.00	10.44	-59.19	0.00	-11.17	Vehicle	Vehicle	-----	-431.05	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	4.63	7.72
		U_{16} - L_{16}	-260.09	-70.48	9.59	-12.63	0.83	0.90	1.00	8.63	-63.43	0.83	-12.63	Vehicle	Vehicle	-----	-475.54	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	3.84	6.40
		U_{17} - L_{17}	-228.20	-66.29	8.82	-11.76	0.66	0.90	1.00	7.93	-59.66	0.66	-11.76	Vehicle	Vehicle	-----	-425.93	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	3.97	6.62
		U_{18} - L_{18}	-209.23	-60.53	4.10	-11.28	-0.02	0.90	1.00	3.69	-54.47	-0.02	-11.28	Vehicle	Vehicle	-----	-390.02	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	4.05	6.76
		U_{19} - L_{19}	-166.51	-52.28	5.26	-9.53	-0.07	0.90	1.00	4.73	-47.05	-0.07	-9.53	Vehicle	Vehicle	-----	-318.41	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	4.40	7.33
		U_{20} - L_{20}	-113.91	-30.88	5.11	-7.50	-0.43	0.90	1.00	4.60	-27.79	-0.43	-7.50	Vehicle	Vehicle	-----	-208.29	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	5.64	9.40
		U_{21} - L_{21}	-62.73	-21.10	5.07	-5.22	-0.44	0.90	1.00	4.56	-18.99	-0.44	-5.22	Vehicle	Vehicle	-----	-122.69	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	8.78	14.63
		U_{22} - L_{22}	-38.93	-8.44	-8.54	-2.15	-2.04	0.90	1.00	-7.60	-7.68	-2.04	-2.15	Vehicle	Vehicle	-----	-67.26	0.00	16.85	16.8486	556.00	131.71	9.9583	1.9682	45.54	31.03	-444.36	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	23.65	39.42
		U_{23} - L_{23}	-74.45	4.28	-29.27	0.48	-6.10	0.90	1.00	3.85	-26.34	0.48	-6.10	Vehicle	Vehicle	-----	-153.86	0.00	16.85	16.8486	556.00	131.71	10.2526	1.9682	46.88	30.91	-442.66	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	6.06	10.10
		U_{24} - L_{24}	-121.37	4.77	-51.91	0.37	-8.17	0.90	1.00	4.29	-46.72	0.37	-8.17	Vehicle	Vehicle	-----	-259.01	0.00	18.61	18.6095	614.11	131.71	10.5234	1.9845	47.73	30.83	-487.73	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	3.26	5.43
		U_{25} - L_{25}	-169.10	7.85	-59.64	0.43	-9.94	0.90	1.00	7.07	-53.68	0.43	-9.94	Vehicle	Vehicle	-----	-336.14	3.00	23.88	20.8750	787.88	131.71	11.3776	6.3740	16.07	32.75	-664.71	15.75	0.50	10.00	0.50	-----	-----	15.75	-----	-----	31.50	45.00	Pass	10.00	12.00	Pass	-----	-----	3.83	6.38
		U_{26} - L_{26}	-207.93	7.15	-62.37	0.14	-11.42	0.90	1.00	6.43	-56.14	0.14	-11.42	Vehicle	Vehicle	-----	-391.93	0.00	27.98	27.9777	923.26	131.71	12.2552	2.8289	38.99	31.55	-750.39	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	3.95	6.58
		U_{27} - L_{27}	-219.90	15.99	-59.83	0.16	-11.49	0.90	1.00	14.39	-53.85	0.16	-11.49	Vehicle	Vehicle	-----	-402.53	1.17	30.63	29.4605	1010.81	131.71	14.0365	2.8427	44.44	31.12	-810.28	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	45.00	Pass	6.06	12.00	Pass	-----	-----	4.49	7.49
		U_{28} - L_{28}	-240.66	20.33	-50.56	-0.25	-11.17	0.90	1.00	18.29	-45.50	-0.25	-11.17	Vehicle	Vehicle	-----	-411.44	0.00	33.27	33.2657	1097.77	131.71	15.8698	2.8573	49.99	30.62	-865.90	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	45.00	Pass	5.62	12.00	Pass	-----	-----	5.61	9.35
		U_{29} - L_{29}	-202.76	28.18	-49.79	0.00	-10.35	0.90	1.00	25.36	-44.81	0.00	-10.35	Vehicle	Vehicle	-----	-360.67	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	45.00	Pass	6.59	12.00	Pass	-----	-----	6.53	10.88
		U_{30} - L_{30}	-516.45	-58.82	-21.81	-13.75	-8.21	0.90	1.00	-19.63	-52.94	-8.21	-13.75	Pedestrian	Vehicle	-----	-786.08	11.02	51.81	40.7900	1709.73	131.71	25.6094	4.0330	57.15	29.89	-1316.46	15.38	0.84	15.66	1.38	-----	-----	15.38	-----	-----	18.31	45.00	Pass	5.68	12.00	Pass	-----	-----	5.62	9.37
		U_{31} - L_{31}	-318.62	-67.05	11.06	-12.96	0.00	0.90	1.00	9.95	-60.35	0.00	-12.96	Vehicle	Vehicle	-----	-544.95	2.57	36.98	34.4077	1220.26	131.71	18.7969	2.4715	68.45	28.54	-897.15	16.32	0.81	11.53	0.88	-----	-----	16.32	-----	-----	20.13	45.00	Pass	6.59	12.00	Pass	-----	-----	3.69	6.16
		U_{32} - L_{32}	-358.52	-73.91	2.80	-14.65	-0.25	0.90	1.00	2.52	-66.52	-0.25	-14.65	Vehicle	Vehicle	-----	-610.20	2.92	41.13	38.2105	1357.31	131.71	15.8698	2.4676	57.88	29.81	-1042.30	16.48	0.90	11.58	0.96	-----	-----	16.48	-----	-----	18.26	45.00	Pass	6.06	12.00	Pass	-----	-----	4.00	6.66
		U_{33} - L_{33}	-325.85	-69.42	3.16	-13.02	-0.46	0.90	1.00	2.84	-62.48	-0.46	-13.02	Vehicle	Vehicle	-----	-558.97	2.42	38.13	35.7105	1258.31	131.71	14.0365

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Inspected

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

Vehicle Load Factors: DL Factor: 1.30 LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30 LL Factor: 1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculation
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Articl
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D (kips)	LL max (kips)	LL min (kips)	Pedestrian Load MAX	Pedestrian Load MIN	Multiple Lane Reduction	Impact Multiplier (1+I)	Lane Reduction and Impact LL MAX	Lane Reduction and Impact LL MIN	Impact & Pedestrian Load MAX	Impact & Pedestrian Load MIN	Controlling Load Case for Tension	Controlling Load Case for Compression	Max. Tension (kips)&	Max. Comp. (kips)&	Member Capicity in Tension: A deduct (in²) **	A gross (in²)	A net (in²)	C Nominal (kips)	Member Capicity in Compression: C c	L (feet)	r min (in)	KL/r min ***	F crit **** (ksi)	C nominal (kips)	Plate Thickness/Ratios: Web Depth (in)	Web Thickness (in)	Top Flange Component Length (in)	Top Flange Component Thickness (in)	Bot. Flange Component Length (in)	Bot. Flange Component Thickness (in)	Overall Width (in)	Σ(s/t)	Area Enclosed (in^2)	Web Members b/t	Web Members Max. b/t	Web Members Pass	Top Flange Component b/t	Top Flange Component Max. b/t	Top Flange Component Pass	Bot. Flange Component b/t	Bot. Flange Component Max. b/t	Bot. Flange Component Pass	Axial Force Rating: Tension Member Inventory RF	Tension Member Operating RF	Comp. Member Inventory RF	Comp. Member Operating RF
South Truss - Diagonals	Structure 1	U_0 - L_1	87.61	62.34	-25.81	14.00	-4.60	0.90	1.00	56.10	-23.23	14.00	-4.60	Vehicle	Vehicle	235.45	-----	2.06	23.10	21.0386	762.25	131.71	10.8646	1.6920	57.79	29.82	-585.54	10.00	0.31	8.46	0.65	-----	-----	10.00	-----	-----	32.00	-----	-----	6.56	-----	-----	-----	-----	-----	**5.33**	**8.89**	-----	-----
		U_1 - L_2	23.84	22.76	22.90	9.20	-4.72	0.90	1.00	20.61	20.48	9.20	-4.72	Pedestrian	Vehicle	79.44	-----	0.00	16.85	16.8486	556.00	131.71	11.3438	1.9682	51.87	30.44	-435.95	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**10.84**	**13.55**	-----	-----
		U_2 - L_3	-49.05	0.00	-28.96	0.00	-1.00	0.90	1.00	0.00	-26.06	0.00	-1.00	Vehicle	Vehicle	-----	-120.23	0.00	16.85	16.8486	556.00	131.71	11.5729	1.9682	52.92	30.34	-434.45	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**6.56**	**10.94**
		U_3 - L_4	-108.90	-6.72	-21.43	-4.21	-2.10	0.90	1.00	-6.05	-19.28	-2.10	-4.21	Pedestrian	Vehicle	-----	-183.35	0.00	16.85	16.8486	556.00	131.71	11.1302	1.9682	50.90	30.54	-437.32	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**7.08**	**11.80**
		U_4 - L_4	153.14	47.00	5.30	3.12	7.00	0.90	1.00	42.30	4.77	7.00	3.12	Vehicle	Pedestrian	290.74	-----	0.00	20.66	20.6644	681.93	131.71	11.6953	2.0011	52.60	30.37	-533.41	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**5.27**	**8.78**	-----	-----
		U_5 - L_5	186.37	48.57	0.00	13.44	0.00	0.90	1.00	43.71	0.00	13.44	0.00	Vehicle	Vehicle	336.99	-----	0.00	25.63	25.6315	845.84	131.71	12.6380	2.8057	40.54	31.44	-684.91	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**6.37**	**10.62**	-----	-----
		U_6 - L_6	177.53	40.05	-12.45	14.14	0.00	0.90	1.00	36.04	-11.21	14.14	0.00	Pedestrian	Vehicle	312.33	-----	0.00	25.63	25.6315	845.84	131.71	13.1016	2.8057	42.03	31.32	-682.36	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**7.54**	**9.43**	-----	-----
		U_7 - L_7	173.15	44.94	-12.24	13.87	0.00	0.90	1.00	40.44	-11.02	13.87	0.00	Pedestrian	Vehicle	313.36	-----	0.00	25.63	25.6315	845.84	131.71	14.4349	2.8057	46.30	30.96	-674.53	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**7.03**	**8.79**	-----	-----
		U_8 - L_8	328.03	74.39	-2.92	19.31	0.00	0.90	1.00	66.95	-2.62	19.31	0.00	Vehicle	Vehicle	571.49	-----	4.25	37.91	33.6563	1250.91	131.71	15.1354	2.6033	52.33	30.40	-979.36	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.68**	**9.47**	-----	-----
		U_9 - L_{10}	339.64	82.27	-3.07	19.75	0.00	0.90	1.00	74.05	-2.76	19.75	0.00	Vehicle	Vehicle	601.96	-----	4.25	37.91	33.6563	1250.91	131.71	13.2031	2.6033	45.65	31.02	-999.42	16.25	0.63	12.00	0.75	-----	-----	16.25	-----	-----	26.00	-----	-----	8.00	-----	-----	-----	-----	-----	**5.04**	**8.41**	-----	-----
		U_{10} - L_{11}	313.15	80.65	0.00	18.15	0.00	0.90	1.00	72.58	0.00	18.15	0.00	Vehicle	Vehicle	564.36	-----	4.00	35.88	31.8750	1183.88	131.71	13.5833	2.6322	46.44	30.95	-943.73	16.25	0.50	12.00	0.75	-----	-----	16.25	-----	-----	32.50	-----	-----	8.00	-----	-----	-----	-----	-----	**4.94**	**8.23**	-----	-----
		U_{11} - L_{12}	270.62	73.92	0.00	14.84	0.00	0.90	1.00	66.53	0.00	14.84	0.00	Vehicle	Vehicle	495.94	-----	0.00	30.63	30.6305	1010.81	131.71	12.9375	2.8427	40.96	31.40	-817.64	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.57**	**7.62**	-----	-----
		U_{12} - L_{13}	194.11	31.79	-1.43	10.79	0.00	0.90	1.00	28.61	-1.29	10.79	0.00	Pedestrian	Vehicle	316.36	-----	3.13	24.86	21.7294	820.36	131.71	13.0625	2.0895	56.26	29.99	-633.68	16.00	0.44	10.00	0.56	-----	-----	16.00	-----	-----	36.57	-----	-----	8.89	-----	-----	-----	-----	-----	**8.87**	**11.09**	-----	-----
		U_{13} - L_{14}	123.52	7.32	5.37	2.11	3.86	0.90	1.00	6.59	4.83	3.86	2.11	Pedestrian	Pedestrian	177.55	-----	0.00	16.85	16.8486	556.00	131.71	12.1771	1.9682	55.68	30.05	-430.37	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**23.29**	**29.11**	-----	-----
		U_{15} - L_{14}	-16.31	-1.19	-1.43	0.00	-0.88	0.90	1.00	-1.07	-1.29	0.00	-0.88	Vehicle	Pedestrian	-----	-24.72	0.00	16.85	16.8486	556.00	131.71	12.6771	1.9682	57.97	29.80	-426.83	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	-----	-----	**115.30**	**144.12**
		U_{16} - L_{15}	59.11	28.34	-8.87	6.08	-2.09	0.90	1.00	25.50	-7.98	6.08	-2.09	Vehicle	Vehicle	132.10	-----	0.00	16.85	16.8486	556.00	131.71	13.3438	1.9682	61.02	29.46	-421.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.67**	**14.45**	-----	-----
		U_{17} - L_{16}	172.05	46.32	-9.66	9.93	-1.86	0.90	1.00	41.68	-8.70	9.93	-1.86	Vehicle	Vehicle	313.99	-----	0.00	20.66	20.6644	681.93	131.71	13.5156	2.0011	60.79	29.49	-517.90	16.16	0.49	8.54	0.80	-----	-----	16.16	-----	-----	33.25	-----	-----	5.37	-----	-----	-----	-----	-----	**5.07**	**8.46**	-----	-----
		U_{18} - L_{17}	210.69	47.57	-8.22	12.50	-1.53	0.90	1.00	42.81	-7.39	12.50	-1.53	Vehicle	Vehicle	366.67	-----	0.00	25.63	25.6315	845.84	131.71	14.3359	2.8057	45.99	30.99	-675.14	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**6.17**	**10.28**	-----	-----
		U_{19} - L_{18}	242.30	50.04	-6.56	13.72	-1.21	0.90	1.00	45.03	-5.91	13.72	-1.21	Vehicle	Vehicle	412.57	-----	0.00	27.98	27.9777	923.26	131.71	15.4219	2.8289	49.06	30.71	-730.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**6.23**	**10.39**	-----	-----
		U_{20} - L_{19}	257.77	45.56	-5.39	15.71	-1.03	0.90	1.00	41.00	-4.85	15.71	-1.03	Pedestrian	Vehicle	427.26	-----	0.00	27.98	27.9777	923.26	131.71	17.4063	2.8289	55.38	30.08	-715.41	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**6.38**	**7.98**	-----	-----
		U_0 - L_1	299.01	70.94	-18.04	14.21	-2.21	0.90	1.00	63.84	-16.23	14.21	-2.21	Vehicle	Vehicle	527.03	-----	0.00	30.63	30.6305	1010.81	131.71	16.5521	2.8427	52.40	30.39	-791.18	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.50**	**7.50**	-----	-----
		U_1 - L_2	284.23	75.30	-21.52	14.05	-2.66	0.90	1.00	67.77	-19.37	14.05	-2.66	Vehicle	Vehicle	516.32	-----	0.00	30.63	30.6305	1010.81	131.71	15.1979	2.8427	48.12	30.80	-801.85	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.37**	**7.28**	-----	-----
		U_2 - L_3	221.45	65.84	-22.84	11.83	-2.85	0.90	1.00	59.26	-20.55	11.83	-2.85	Vehicle	Vehicle	416.27	-----	0.00	25.63	25.6315	845.84	131.71	14.0000	2.8057	44.91	31.08	-677.17	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.35**	**7.24**	-----	-----
		U_3 - L_4	178.33	63.44	-25.79	10.08	-3.23	0.90	1.00	57.10	-23.21	10.08	-3.23	Vehicle	Vehicle	355.53	-----	0.00	22.73	22.7330	750.19	131.71	13.6146	2.0170	60.75	29.49	-569.83	16.32	0.53	8.59	0.88	-----	-----	16.32	-----	-----	30.85	-----	-----	4.91	-----	-----	-----	-----	-----	**4.19**	**6.98**	-----	-----
		U_4 - L_5	53.52	36.26	-21.86	5.38	-2.87	0.90	1.00	32.64	-19.67	5.38	-2.87	Vehicle	Vehicle	140.28	-----	0.00	16.85	16.8486	556.00	131.71	15.3958	1.9682	70.40	28.29	-405.09	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**6.88**	**11.47**	-----	-----
		U_5 - L_6	-16.50	26.44	-21.73	2.23	-1.22	0.90	1.00	23.80	-19.56	2.23	-1.22	Vehicle	Vehicle	30.11	-63.83	0.00	16.85	16.8486	556.00	131.71	13.1354	1.9682	60.06	29.57	-423.46	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	45.00	Pass	6.56	12.00	Pass	-----	-----	-----	**11.20**	**18.67**	**9.49**	**15.81**
		U_6 - L_7	-133.20	4.60	-25.02	0.00	-5.36	0.90	1.00	4.14	-22.52	0.00	-5.36	Vehicle	Vehicle	-----	-221.96	0.00	18.61	18.6095	614.11	131.71	13.3229	1.9845	60.42	29.53	-467.07	16.00	0.44	8.50	0.72	-----	-----	16.00	-----	-----	36.12	45.00	Pass	5.94	12.00	Pass	-----	-----	-----	-----	-----	**6.02**	**10.04**
		U_7 - L_7	208.77	33.38	-2.53	8.33	0.00	0.90	1.00	30.04	-2.28	8.33	0.00	Vehicle	Vehicle	336.49	-----	3.00	23.77	20.7656	784.26	131.71	13.7500	2.1158	58.49	29.75	-600.89	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**7.88**	**13.13**	-----	-----
		U_8 - L_8	289.58	44.65	7.06	10.70	0.00	0.90	1.00	40.18	6.35	10.70	0.00	Vehicle	Vehicle	463.52	-----	0.00	27.98	27.9777	923.26	131.71	13.7917	2.8289	43.88	31.17	-741.22	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**6.28**	**10.47**	-----	-----
		U_{10} - L_9	327.97	76.44	0.00	12.66	0.00	0.90	1.00	68.80	0.00	12.66	0.00	Vehicle	Vehicle	575.42	-----	0.00	30.63	30.6305	1010.81	131.71	14.2292	2.8427	45.05	31.07	-808.93	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**3.92**	**6.53**	-----	-----
		U_{11} - L_{10}	349.27	75.08	-7.84	12.70	0.00	0.90	1.00	67.57	-7.06	12.70	0.00	Vehicle	Vehicle	600.46	-----	0.00	33.27	33.2657	1097.77	131.71	15.0833	2.8573	47.51	30.85	-872.39	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.40**	**7.33**	-----	-----
		U_{12} - L_{11}	358.20	70.29	-11.74	13.52	0.00	0.90	1.00	63.26	-10.57	13.52	0.00	Vehicle	Vehicle	602.72	-----	0.00	33.27	33.2657	1097.77	131.71	16.7604	2.8573	52.79	30.35	-858.14	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.61**	**7.69**	-----	-----
		U_{13} - L_{12}	307.76	64.95	-23.74	12.26	-0.24	0.90	1.00	58.46	-21.36	12.26	-0.24	Vehicle	Vehicle	526.74	-----	0.00	30.63	30.6305	1010.81	131.71	18.4063	2.8427	58.27	29.77	-775.09	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.82**	**8.04**	-----	-----
		U_{14} - L_{13}	260.25	45.39	-20.11	9.65	0.00	0.90	1.00	40.85	-18.10	9.65	0.00	Vehicle	Vehicle	426.84	-----	0.00	30.63	30.6305	1010.81	131.71	20.6563	2.8427	65.40	28.93	-753.27	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**7.60**	**12.66**	-----	-----
		U_{14} - L_{15}	208.41	56.73	-16.43	11.04	-2.52	0.90	1.00	51.06	-14.79	11.04	-2.52	Vehicle	Vehicle	381.56	-----	0.00	25.63	25.6315	845.84	131.71	20.0729	2.8057	64.39	29.06	-633.05	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.20**	**8.66**	-----	-----
		U_{15} - L_{16}	243.53	70.59	-13.57	11.54	-1.48	0.90	1.00	63.53	-12.21	11.54	-1.48	Vehicle	Vehicle	454.24	-----	0.00	25.63	25.6315	845.84	131.71	17.8750	2.8057	57.34	29.87	-650.83	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.84**	**6.41**	-----	-----
		U_{16} - L_{17}	255.83	70.44	-9.26	12.23	0.00	0.90	1.00	63.40	-8.33	12.23	0.00	Vehicle	Vehicle	469.93	-----	0.00	27.98	27.9777	923.26	131.71	16.2500	2.8289	51.70	30.46	-724.32	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**4.30**	**7.17**	-----	-----
		U_{17} - L_{18}	235.25	70.80	-10.53	11.35	0.00	0.90	1.00	63.72	-9.47	11.35	0.00	Vehicle	Vehicle	443.89	-----	0.00	25.63	25.6315	845.84	131.71	14.5729	2.8057	46.75	30.92	-673.68	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.91**	**6.52**	-----	-----
		U_{18} - L_{19}	212.06	62.59	-9.31	11.09	0.00	0.90	1.00	56.33	-8.38	11.09	0.00	Vehicle	Vehicle	397.73	-----	0.00	25.63	25.6315	845.84	131.71	13.7500	2.8057	44.11	31.15	-678.65	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.67**	**7.79**	-----	-----
	Structure 2	U_{19} - L_{20}	168.18	40.82	-10.04	9.14	0.00	0.90	1.00	36.73	-9.03	9.14	0.00	Vehicle	Vehicle	298.23	-----	0.00	23.77	23.7656	784.26	131.71	13.4792	2.1158	57.34	29.87	-603.46	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**7.11**	**11.84**	-----	-----
		U_{20} - L_{21}	97.21	27.18	-6.76	6.66	0.00	0.90	1.00	24.46	-6.08	6.66	0.00	Vehicle	Vehicle	179.37	-----	0.00	16.85	16.8486	556.00	131.71	13.3958	1.9682	61.26	29.43	-421.49	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**8.11**	**13.51**	-----	-----
		U_{21} - L_{22}	30.55	1.32	-9.15	0.58	-2.18	0.90	1.00	1.19	-8.23	0.58	-2.18	Pedestrian	Vehicle	42.59	-----	0.00	16.85	16.8486	556.00	131.71	13.1563	1.9682	60.16	29.56	-423.30	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**179.91**	**224.88**	-----	-----
		U_{23} - L_{22}	49.81	23.47	-2.46	5.11	-0.95	0.90	1.00	21.12	-2.21	5.11	-0.95	Vehicle	Pedestrian	110.52	-----	0.00	16.85	16.8486	556.00	131.71	13.6042	1.9682	62.21	29.32	-419.89	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**10.73**	**17.89**	-----	-----
		U_{24} - L_{23}	115.09	39.32	-4.19	8.00	-0.72	0.90	1.00	35.39	-3.77	8.00	-0.72	Vehicle	Vehicle	226.29	-----	0.00	16.85	16.8486	556.00	131.71	13.8542	1.9682	63.35	29.18	-417.93	15.86	0.41	8.46	0.65	-----	-----	15.86	-----	-----	38.97	-----	-----	6.56	-----	-----	-----	-----	-----	**5.30**	**8.83**	-----	-----
		U_{25} - L_{24}	179.20	69.73	1.28	10.10	0.00	0.90	1.00	62.76	1.15	10.10	0.00	Vehicle	Vehicle	368.94	-----	0.00	23.77	23.7656	784.26	131.71	13.8958	2.1158	59.11	29.68	-599.49	15.75	0.38	10.00	0.56	-----	-----	15.75	-----	-----	42.00	-----	-----	8.89	-----	-----	-----	-----	-----	**4.05**	**6.76**	-----	-----
		U_{26} - L_{25}	220.95	72.69	-8.49	11.89	0.00	0.90	1.00	65.42	-7.64	11.89	0.00	Vehicle	Vehicle	428.97	-----	0.00	25.63	25.6315	845.84	131.71	14.2292	2.8057	45.64	31.02	-675.79	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**3.94**	**6.57**	-----	-----
		U_{27} - L_{26}	234.79	68.30	-18.34	11.44	0.00	0.90	1.00	61.47	-16.50	11.44	0.00	Vehicle	Vehicle	438.40	-----	0.00	25.63	25.6315	845.84	131.71	15.0104	2.8057	48.15	30.79	-670.92	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**4.06**	**6.77**	-----	-----
		U_{28} - L_{27}	253.01	64.33	-18.32	12.25	0.00	0.90	1.00	57.89	-16.49	12.25	0.00	Vehicle	Vehicle	454.35	-----	0.00	27.98	27.9777	923.26	131.71	16.7708	2.8289	53.36	30.29	-720.38	16.32	0.54	11.53	0.88	-----	-----	16.32	-----	-----	30.50	-----	-----	6.59	-----	-----	-----	-----	-----	**4.74**	**7.90**	-----	-----
		U_{29} - L_{28}	215.83	54.66	-32.24	10.20	0.61	0.90	1.00	49.19	-29.02	10.20	0.61	Vehicle	Vehicle	387.17	-----	0.00	25.63	25.6315	845.84	131.71	18.3958	2.8057	59.01	29.69	-646.80	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**5.30**	**8.84**	-----	-----
		U_{30} - L_{29}	179.92	43.17	-27.25	8.46	0.00	0.90	1.00	38.85	-24.52	8.46	0.00	Vehicle	Vehicle	318.08	-----	0.00	25.63	25.6315	845.84	131.71	20.6354	2.8057	66.19	28.83	-628.16	16.16	0.50	11.50	0.80	-----	-----	16.16	-----	-----	32.06	-----	-----	7.23	-----	-----	-----	-----	-----	**7.27**	**12.12**	-----	-----
		U_{31} - L_{31}	294.37	62.77	-12.64	12.88	0.00	0.90	1.00	56.49	-11.38	12.88	0.00	Vehicle	Vehicle	505.07	-----	0.00	30.63	30.6305	1010.81	131.71	20.0729	2.8427	63.55	29.16	-759.17	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**5.13**	**8.55**	-----	-----
		U_{31} - L_{32}	342.78	71.75	-10.39	13.71	-0.55	0.90	1.00	64.57	-9.35	13.71	-0.55	Vehicle	Vehicle	585.52	-----	0.00	30.63	30.6305	1010.81	131.71	17.8750	2.8427	56.59	29.95	-779.87	16.48	0.58	11.58	0.96	-----	-----	16.48	-----	-----	28.22	-----	-----	6.06	-----	-----	-----	-----	-----	**4.04**	**6.73**	-----	-----
		U_{32} - L_{33}	363.31	73.84	-5.91	14.15	0.00	0.90	1.00	66.46	-5.32	14.15	0.00	Vehicle	Vehicle	616.29	-----	0.00	33.27	33.2657	1097.77	131.71	16.2500	2.8573	51.18	30.51	-862.64	16.64	0.63	11.63	1.04	-----	-----	16.64	-----	-----	26.37	-----	-----	5.62	-----	-----	-----	-----	-----	**4.34**	**7.24**	-----	-----
		$U_{33}

Moment (End) - AI2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors: DL Factor= 1.30, LL Factor= 2.17
Pedestrian Load Factors: DL Factor= 1.30, LL Factor= 1.60

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1998

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information | **M_y Information**

Location		Member	ZZ Axis Moments from STAAD: Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)	ZZ Axis Moment Properties: Max. Pos. Mom. Start (k-in)	Max. Pos. Mom. End (k-in)	S_{bx} (in^3)	S_{tx} (in^3)	Z_z (in^3)	I_z (in^4)	I_{xx} (in^4)	Shape Factor	M_p (k-in)	Formula (LB Term / F'$_y$*S_{bx})	M_z (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor C_m	YY Axis Moments from STAAD: Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)	YY Axis Moment Properties: Max. Neg. Mom. Start (k-in)	Max. Neg. Mom. End (k-in)	S_{by} (in^3)	S_{ty} (in^3)	Z_y (in^3)	I_{yy} (in^4)	Shape Factor	M_p (k-in)	P_{crit} (kip)	Formula (LB Term / F'$_y$*S_{by})	M_y (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor C_m	Pass	Axial Axial/ Axial Buckle	Moment Buckle	Total	Pass	Axial Axial/ Axial Fracture	Moment Fracture	Total	Pass	Axial Axial/ Axial Yield	Moment Yield	Total	Pass
Structure 1		U_0-L_1	-131.25	-22.60	0.00	1.71	-2.28	-4.82							-0.01	18.50	-25.69	-52.00	0.00	0.00	0.00	0.00	-170.64	10.70	-228.29	-142.05	90.2	90.24	72.24	127.46	2147	1328.6	1.41	4206	0.99800041	2974.3	0.629	0.85	0.85	4.32	-17.87	0.02	0.32	-0.65	-0.97					0.21	3.41	-6.97	-16.43	0.00	0.00	0.00	0.00	8.07	-15.84	-9.47	-45.84	158.6	128.68	179.40	778.9	1.13	5920	—	0.99724257	5220.7	0.207	0.688	0.88	0.09	—	—	—	—	0.276	0.071	0.35	Yes	0.267	0.064	0.33	Yes
		U_1-L_2	-54.49	-51.15	0.28	3.04	-1.45	-9.18							3.00	32.88	-15.66	-98.18	0.00	0.00	0.00	0.00	-64.33	4.74	-104.77	-281.38	90.2	90.24	72.24	127.46	2147	1328.6	1.41	4206	0.99800041	2974.3	0.372	0.75	0.75	4.45	-58.42	-0.02	1.14	-0.18	-1.28					0.13	12.32	-1.90	-13.85	0.00	0.00	0.00	0.00	4.18	-49.24	-9.90	-130.00	158.6	128.68	179.40	778.9	1.13	5920	—	0.99724257	5220.7	0.052	0.694	0.84	0.04	—	—	—	—	0.083	0.12	0.20	Yes	0.067	0.033	0.10	Yes
		U_2-L_3	-52.26	-51.06	2.75	4.32	-5.82	-12.57							29.71	48.63	-62.86	-135.72	0.00	0.00	0.00	0.00	-3.57	180.41	-204.13	-214.70	90.2	90.24	72.24	127.46	2147	1328.6	1.41	4206	0.99800041	2974.3	0.951	0.98	0.98	51.88	38.10	-1.13	-0.21	1.61	0.21					0.83	44.70	105.02	-54.51	158.6	128.68	179.40	778.9	1.13	5920	—	0.99724257	5220.7	0.119	0.81	0.81	0.183	0.069	0.26	Yes	0.126	0.547	0.67	Yes	0.311	0.088	0.40	Yes	0.308	0.051	0.36	Yes
		U_3-L_4	-28.29	-50.99	3.04	4.66	-3.14	-13.57							34.11	58.29	-72.20	-155.07	-29.90	0.00	0.00	0.00	24.11	180.41	-204.13	-214.70	90.2	90.24	72.24	127.46	2147	1328.6	1.41	4206	0.99800041	2974.3	0.951	0.98	0.98	38.35	-3.80	-0.49	1.47	0.24	-2.67					-5.29	-1.47	8.24	-7.19	158.6	128.68	179.40	778.9	1.13	5920	—	0.99724257	5220.7	0.427	0.43	0.43	0.187	0.100	0.29	Yes	0.138	0.009	0.15	Yes	0.303	0.089	0.39	Yes
		U_4-L_5	2.12	145.13	-2.23	49.55	-2.28	-1.16							-24.09	53.44	-24.67	-12.58	0.00	0.00	0.00	0.00	-49.45	354.45	-50.69	181.45	90.2	90.24	72.24	127.46	2147	1328.6	1.41	4206	0.99800041	2974.3	0.162	0.54	0.54	20.14	-42.17	67.31	-49.85	0.00	0.00	0.00	0.00	18.08	-121.16	120.27	-181.13	158.6	128.68	128.75	179.40	778.9	1.13	5920	—	0.99724257	5220.7	0.154	0.333	0.49	0.196	0.103	0.30	Yes	0.132	0.068	0.20	Yes
		U_5-L_6	34.53	68.37	0.00	0.00	-1.16	-0.59							45.94	23.30	-18.49	-5.86	0.00	0.00	0.00	0.00	211.96	118.67	28.13	12.34	90.2	90.24	72.24	127.46	2147	1328.6	1.41	4206	0.99800041	2974.3	0.041	0.51	0.51	-35.62	-5.39	-1.31	-0.34	0.50	-0.31					-108.35	-107.52	75.95	-103.09	158.6	128.68	179.40	778.9	1.13	5920	—	0.99724257	5220.7	0.488	0.067	0.56	Yes	0.541	0.046	0.59	Yes	0.886	0.167	1.05	No
		U_6-L_7	-69.92	603.38	-0.22	21.11	0.00	0.00							-67.37	228.03	0.00	0.00	0.00	0.00	236.42	1278.47	-90.89	784.40	138.2	138.17	111.77	198.97	3642	2197.7	1.45	6999	0.99899451	4564.8	-0.185	0.53	0.53	-185.44	-89.56	0.64	-2.19	0.00	0.00					-226.03	-197.77	-241.08	-116.43	260.5	260.46	255.97	298.48	1150.4	1.15	9850	—	0.99725157	8371.6	0.483	0.79	0.79	0.512	0.218	0.73	Yes	0.357	0.149	0.51	Yes	—	—	—	—	—	—	—	—	—	—	—	—
		U_7-L_8	531.73	-129.19	0.33	0.71	10.01	-6.18							3.60	7.68	108.12	-66.79	0.00	0.00	0.00	0.00	699.05	-151.31	925.51	312.66	130.3	130.26	105.11	180.77	2955	1795.3	1.39	5955	0.99905052	4252.8	-0.338	0.46	0.46	-182.47	-92.09	-4.22	-0.35	-1.47	0.62					-55.98	-288.95	-128.14	-271.63	215.3	215.28	212.78	173.24	946.35	1.16	8131	—	0.99727218	7002.2	0.382	0.75	0.75	0.409	0.196	0.61	Yes	0.285	0.134	0.42	Yes	—	—	—	—	—	—	—	—	—	—	—	—
		U_8-L_9	68.54	43.95	1.64	2.96	1.88	-3.56							17.78	31.67	-25.09	-73.75	132.06	-36.12	95.6	96.61	79.12	139.29	2172	1367.8	1.40	4405	0.99873139	3184.1	-0.132	0.52	0.52	-33.57	114.59	2.92	67.29	0.00	0.00	0.00	0.00	-24.44	-13.43	2.92	-37.22	291.43	165.9	193.79	136.34	188.45	825.4	1.14	6219	—	0.99717772	5455.6	0.146	0.154	0.30	0.340	0.075	0.42	Yes	0.231	0.047	0.28	Yes	—	—	—	—	—	—	—	—	—	—	—	—
		U_9-L_{10}	100.48	-176.70	2.99	2.53	2.11	-8.66							32.25	27.27	22.77	-93.54	0.00	0.00	0.00	0.00	200.50	-170.62	179.95	-432.37	96.6	96.61	83.55	130.29	2174	1387.9	1.40	4405	0.99873139	3184.1	-0.416	0.43	0.43	92.30	64.86	-1.21	0.23	1.18	0.73					-13.07	2.44	12.78	7.87	0.00	0.00	0.00	0.00	91.68	89.60	147.67	101.37	165.8	165.79	136.34	188.45	825.4	1.14	6219	—	0.99717766	5455.6	0.686	0.87	0.87	0.045	0.121	0.17	Yes	0.030	0.077	0.11	Yes	0.316	0.083	0.40	Yes	0.313	0.057	0.42	Yes
		U_{10}-L_{11}	37.29	160.14	2.46	2.12	-2.17	-7.27							37.29	160.14	-27.49	-87.21	0.00	0.00	0.00	0.00	159.84	-58.67	34.33	-144.94	96.6	96.61	83.55	130.29	2174	1387.9	1.40	4405	0.99873139	3184.1	-0.042	0.58	0.58	92.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	123.10	147.41	33.05	157.15	215.3	215.28	212.78	173.24	946.35	1.16	8374	—	0.99727242	7218.3	0.300	0.727	1.03	0.508	0.069	0.63	Yes	0.358	0.049	0.41	Yes	—	—	—	—	—	—	—	—	—	—	—	—
		U_{11}-L_{12}	-66.66	-218.08	2.73	1.00	-1.36	-5.88							29.51	12.84	-14.73	-63.46	0.00	0.00	0.00	0.00	61.73	-292.01	-157.08	-421.00	151.6	151.58	130.94	219.77	4535	2532.6	1.45	7252	0.99905052	5003.4	0.374	0.75	0.75	314.63	172.08	-1.28	-0.39	2.61	2.14					-13.83	-4.26	28.17	23.08	0.00	0.00	0.00	0.00	379.04	215.76	470.04	235.42	330.4	330.43	268.63	381.70	1177.4	1.16	12996	—	0.99619826	12868.9	0.585	0.83	0.83	—	—	—	—	—	—	—	—	—	—	—	—
		U_{12}-L_{13}	-113.95	-343.96	1.82	1.32	-4.64	-267.88							19.66	18.36	-64.44	-267.88	0.00	0.00	0.00	0.00	-183.48	-412.94	156.33	-1.64	151.6	151.58	130.94	219.77	4535	2532.6	1.45	7252	0.99905052	5003.4	0.374	0.75	0.75	252.68	163.66	-0.98	-0.30	2.34	1.96					-13.57	-9.76	23.72	19.23	0.00	0.00	0.00	0.00	360.58	205.32	447.24	224.01	330.4	330.43	268.63	381.70	1177.4	1.16	14879	—	0.99696905	12868.9	0.562	0.82	0.82	—	—	—	—	—	—	—	—	—	—	—	—
		U_{13}-L_{14}	-287.80	-237.44	2.40	1.38	-23.80	-7.53							25.87	14.93	-257.07	-81.27	0.00	0.00	0.00	0.00	-318.10	-276.33	-931.13	-464.75	188.5	188.51	157.55	274.68	5476	3413.6	1.46	9064	0.99899321	6214.6	0.321	0.81	0.81	201.33	32.80	-1.23	-0.36	8.32	3.23					-13.28	-3.83	89.88	34.85	0.00	0.00	0.00	0.00	232.94	34.33	456.46	118.15	381.9	381.94	310.11	444.82	1541.3	1.16	14879	—	0.99696906	12868.9	0.259	0.70	0.70	—	—	—	—	—	—	—	—	—	—	—	—
		U_{14}-L_{15}	-196.20	-337.71	1.23	0.58	-6.26	-7.42							13.24	6.23	-67.58	-80.16	0.00	0.00	0.00	0.00	226.38	-425.52	451.48	-612.70	188.5	188.51	164.41	274.68	5476	3413.6	1.46	9064	0.99899321	6214.6	0.655	0.86	0.86	98.34	21.19	-1.03	0.39	6.26	-1.43					-11.13	4.20	67.85	-15.40	0.00	0.00	0.00	0.00	103.72	36.64	274.84	-5.83	381.9	381.94	312.64	444.82	1541.3	1.16	14879	—	0.99696905	12868.9	-0.021	0.59	0.59	—	—	—	—	—	—	—	—	—	—	—	—
		U_{15}-L_{16}	-295.83	-154.75	0.90	0.26	-12.17	-3.85							-261.54	-118.97	-211.38	-41.61	0.00	0.00	0.00	0.00	-363.54	-195.09	-698.24	-294.38	188.5	188.51	157.55	274.68	5476	3413.6	1.46	9064	0.99899321	6214.6	0.420	0.77	0.77	2.98	0.99	79.37	-25.75	0.00	0.00	0.00	0.00	208.64	-65.30	124.20	-148.98	286.7	286.69	232.57	327.18	990.9	1.14	10797	—	0.99686826	9429.2	-0.313	0.47	0.47	—	—	—	—	0.561	0.071	0.66	Yes	0.574	0.069	0.65	Yes
		U_{16}-L_{17}	-179.63	-39.55	0.75	0.13	-6.03	-2.27							-43.73	2.42	-35.01	-3.55	0.00	0.00	0.00	0.00	-414.84	-46.38	-217.45	-59.98	104.8	104.75	86.43	150.33	2599	1554.3	1.44	4971	0.99885042	3452.8	0.172	0.52	0.52	75.35	23.33	-0.22	0.07	4.47	0.00					-47.63	-108.59	6.31	-2.22	-0.77	0.41					-13.02	-44.26	-31.48	-84.21	182.4	182.41	152.47	211.16	925.0	1.15	6968	—	0.99727415	6062.4	-0.899	0.24	0.24	—	—	—	—	0.342	0.083	0.43	Yes
		U_{17}-L_{18}	-249.78	258.69	-9.13	14.97	-1.57	-2.28							-98.61	161.62	-16.93	-24.58	0.00	0.00	0.00	0.00	-538.37	686.48	-361.40	263.04	104.8	104.75	86.43	150.63	2589	1554.3	1.44	4971	0.99885042	3452.8	-0.784	0.29	0.29	64.72	-122.10	3.74	4.91	1.14	0.74					40.35	-96.23	-32.38	-7.95	0.00	0.00	0.00	0.00	69.27	-57.38	-141.50	-184.2	184.21	152.53	211.16	925.0	1.15	6968	—	0.99727415	6062.4	-0.499	0.37	0.37	—	—	—	—	0.237	0.094	0.34	Yes
		U_{18}-L_{19}	-28.62	-172.11	-0.52	1.66	-1.15	-8.35							-5.65	17.88	-12.38	-96.19	0.00	0.00	0.00	0.00	-49.44	-185.00	-64.62	-419.16	127.8	127.83	111.16	118.51	2782	1538.8	1.40	5891	0.99861132	4212.5	0.153	0.66	0.66	-2.25	-62.11	0.09	0.00	-0.40	-0.38					0.98	0.57	-4.28	-4.11	0.00	0.00	0.00	0.00	-0.79	-66.50	-12.18	-76.66	183.7	183.74	154.30	206.87	1307.3	1.13	6827	—	0.99783275	6050.3	0.155	0.66	0.66	—	—	—	—	0.290	0.075	0.37	Yes
		U_{19}-L_{20}	-24.91	-195.34	-0.31	1.56	-1.14	-9.07							-39.73	17.16	-27.65	-107.96	0.00	0.00	0.00	0.00	-379.73	-217.65	-1,000.00	-1,000.00	127.8	127.83	111.16	118.51	2782	1538.8	1.40	5891	0.99861132	4212.5	0.153	0.66	0.66	-47.86	-105.41	-0.43	0.42	0.72	0.72					-1.53	-0.77	-5.13	-5.12	0.00	0.00	0.00	0.00	-7.42	-72.19	-19.05	-89.39	183.7	183.74	154.30	206.87	1307.3	1.13	6827	—	0.99783275	6050.3	0.178	0.66	0.66	—	—	—	—	0.332	0.083	0.42	Yes
		U_{20}-L_{21}	-53.03	-283.30	-0.66	2.32	-0.09	-12.64							-7.12	25.03	-0.92	-136.46	0.00	0.00	0.00	0.00	-84.36	-314.04	-70.92	-663.94	212.6	212.59	170.43	297.57	4967	2491.6	1.40	9023	0.99857139	7005.5	0.107	0.64	0.64	-19.06	239.87	0.03	1.62	-0.95	-3.37					0.37	17.23	-23.02	-36.26	0.00	0.00	0.00	0.00	-23.99	349.15	-47.03	233.00	291.07	224.51	330.12	2218.7	1.16	11198	—	0.99739368	9683.5	0.212	0.61	0.61	—	—	—	—	0.532	0.083	0.62	Yes
		U_{21}-L_{22}	-339.68	-389.97	0.00	3.52	-4.60	-11.02							-42.96	47.75	-49.04	-230.40	0.00	0.00	0.00	0.00	8.34	-374.47	-249.73	-1,000.00	212.6	212.59	170.43	297.57	4967	2491.6	1.40	9023	0.99857139	7005.5	0.107	0.64	0.64	-401.09	224.11	-0.57	1.53	-1.21	-2.14					-42.98	27.47	-49.04	-232.88	0.00	0.00	0.00	0.00	-42.98	327.49	-49.04	232.88	291.07	224.51	330.12	2218.7	1.16	11198	—	0.99739368	9683.5	0.212	0.61	0.61	—	—	—	—	0.532	0.083	0.62	Yes
		U_{22}-L_{23}	-360.46	-389.97	0.35	3.82	-7.67	-18.83							3.73	41.30	-62.83	-203.34	0.00	0.00	0.00	0.00	-460.48	-417.47	-648.05	-947.53	251.7	251.73	213.41	365.62	7161	3870.6	1.45	12066	0.99919118	8298.1	0.684	0.87	0.87	320.11	255.18	2.84	1.52	-9.30	-2.74					30.65	12.12	-100.48	-25.58	0.00	0.00	0.00	0.00	742.55	292.98	458.47	202.64	436.1	436.13	355.64	502.36	2459.2	1.15	16578	—	0.99764854	14358.4	0.395	0.75	0.75	—	—	—	—	0.563	0.141	0.71	Yes
		U_{23}-L_{24}	-403.42	-389.97	2.89	3.14	-12.68	-17.14							-12.01	41.30	-121.55	-201.05	0.00	0.00	0.00	0.00	-460.48	-417.47	-648.05	-944.18	251.7	251.73	213.41	365.62	7161	3870.6	1.45	12066	0.99919118	8298.1	0.684	0.87	0.87	320.11	255.18	2.84	1.52	-9.30	-2.74					-4.26	12.12	-100.48	-25.58	0.00	0.00	0.00	0.00	742.55	292.98	458.47	202.64	436.1	436.13	355.64	502.36	2459.2	1.15	16578	—	0.99764854	14358.4	0.395	0.75	0.75	—	—	—	—	0.563	0.141	0.71	Yes
		U_{24}-L_{25}	-349.63	-209.07	5.22	5.06	-13.49	-31.12							56.32	54.65	-145.70	-336.10	0.00	0.00	0.00	0.00	-332.49	-152.87	-770.21	-899.49	252.2	252.70	189.45	340.10	6520	3217.6	1.46	11223	0.99885035	7670.6	0.771	0.91	0.91	-31.19	-58.18	-2.98	-1.85	10.11	7.03					-32.18	-19.94	109.19	75.87	0.00	0.00	0.00	0.00	110.28	-170.84	196.02	36.75	378.9	378.79	290.45	432.87	2339.5	1.15	14295	—	0.99756401	12374.8	0.535	0.81	0.81	—	—	—	—	0.621	0.131	0.76	Yes
		U_{25}-L_{26}	-253.78	-280.71	4.01	5.58	-31.78	-12.15							43.26	60.31	-343.18	-131.20	0.00	0.00	0.00	0.00	-236.18	-234.25	-1073.48	-649.18	232.7	232.70	189.45	340.10	6520	3217.6	1.46	11223	0.99885035	7670.6	0.605	0.84	0.84	-37.09	-95.86	-1.74	-1.78	8.73	4.68					-18.82	-19.21	72.72	50.57	0.00	0.00	0.00	0.00	-89.01	-168.24	109.33	-15.05	375.8	375.78	290.45	432.87	2339.5	1.15	14295	—	0.99756401	12374.8	0.535	0.81	0.81	—	—	—	—	0.621	0.131	0.76	Yes
		U_{26}-L_{27}	-25.64	-325.77	3.44	4.61	-10.64	-9.43							-25.64	72.31	-147.56	-127.55	0.00	0.00	0.00	0.00	-325.77	-248.61	-1,000.00	-1,000.00	232.7	232.70	189.45	340.10	6520	3217.6	1.46	11223	0.99885035	7670.6	0.605	0.84	0.84	-2.15	-71.76	-1.74	-1.78	8.73	4.68					-64.85	-14.45	72.72	50.57	0.00	0.00	0.00	0.00	-89.01	-168.24	109.33	-15.05	375.8	375.78	290.45	432.87	2339.5	1.15	14295	—	0.99756401	12374.8	0.535	0.81	0.81	—	—	—	—	0.621	0.131	0.76	Yes
		U_{27}-L_{28}	-237.02	-39.91	5.81	7.26	-9.64	-4.06							62.73	78.42	-104.10	-43.89	0.00	0.00	0.00	0.00	-172.19	-231.27	-533.65	-43.74	181.9	181.87	147.20	249.02	3787	2047.9	1.37	8218	0.99847791	5992.8	0.082	0.63	0.63	-38.55	-81.62	-2.22	-2.15	6.61	-2.15					-23.97	-12.38	71.38	-23.20	0.00	0.00	0.00	0.00	-102.04	-132.93	104.54	-106.37	242.7	242.72	200.48	279.12	1854.0	1.15	9211	—	0.99718905	7992.7	-0.033	0.56	0.56	—	—	—	—	0.417	0.063	0.49	Yes
		U_{28}-L_{29}	-152.08	-38.38	0.00	0.00	0.00	0.00							77.37	78.42	-104.10	-43.89	0.00	0.00	0.00	0.00	-30.08	-231.27	-533.65	-43.74	181.9	181.87	147.20	249.02	3787	2047.9	1.37	8218	0.99847791	5992.8	0.082	0.63	0.63	-20.34	-81.62	-2.22	-2.15	6.61	-2.15					-23.97	-12.38	71.38	-23.20	0.00	0.00	0.00	0.00	-102.04	-132.93	104.54	-106.37	242.7	242.72	200.48	279.12	1854.0	1.15	9211	—	0.99718905	7992.7	-0.033	0.56	0.56	—	—	—	—	0.417	0.063	0.49	Yes
		U_{29}-L_{30}	-116.69	170.75	-11.08	7.43	-3.89	-0.75							-119.66	80.20	-41.96	-6.08	0.00	0.00	0.00	0.00	-410.97	395.75	-242.61	204.47	156.6	156.80	128.72	214.81	3285	1852.3	1.37	7089	0.99854442	5168.9	-0.963	0.21	0.21	40.40	-8.83	2.01	-35.67	0.00	0.00	0.00	0.00	-31.74	-91.38	-112.99	-148.53	219.5	219.53	182.71	248.50	1660.7	1.13	8251	—	0.99777795	7228.4	0.756	0.90	0.90	0.220	0.076	0.30	Yes	0.148	0.051	0.20	Yes
		U_{30}-L_{31}	-31.76	-58.54	8.12	2.53	-4.63	-3.66							-31.76	-58.54	-174.65	-28.74	0.00	0.00	0.00	0.00	-58.54	-174.65	-169.39	-182.56	156.6	156.80	128.72	214.81	3285	1852.3	1.37	7089	0.99854442	5168.9	-0.963	0.21	0.21	-40.40	-8.83	-1.37	0.13	-0.72	-0.72					-14.09	-26.43	-17.37	-33.13	0.00	0.00	0.00	0.00	-45.84	-17.37	-59.13	-59.13	219.5	219.53	182.71	248.50	1660.7	1.13	8251	—	0.99777795	7228.4	0.756	0.90	0.90	—	—	—	—	0.489	0.083	0.58	Yes
		U_{31}-L_{32}	-211.04	-121.68	11.93	41.87	0.00	0.00							-128.87	452.17	0.00	0.00	0.00	0.00	-503.56	2437.90	-274.35	1458.18	221.8	221.77	186.91	327.26	6244	3427.0	1.48	10799	0.99895350	7310.6	-0.227	0.51	0.51	-329.32	-349.01	0.23	8.41	0.00	0.00					2.91	-50.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-227.73	-453.72	-383.72	388.89	314.88	444.22	2202.2	1.14	14699	—	0.99767170	12803.2	0.687	0.87	0.87	—	—	—	—	0.460	0.267	0.73	Yes
		U_{32}-L_{33}	1023.71	-26.69	-0.78	2.24	40.82	-4.24							-8.37	24.22	440.82	-87.44	0.00	0.00	0.00	0.00	1319.18	17.79	2292.43	-160.61	221.8	221.77	186.91	327.26	6244	3427.0	1.48	10799	0.99895350	7310.6	-0.079	0.57	0.57	-420.73	-332.01	-5.93	-3.88	-10.79	-4.27					-64.08	-41.95	-116.49	-46.14	0.00	0.00	0.00	0.00	-685.78	-322.50	-799.34	-531.58	388.9	388.89	314.88	444.22	2202.2	1.14	14699	—	0.99767170	12803.2	0.695	0.87	0.87	0.460	0.267	0.73	Yes	0.326	0.176	0.51	Yes
		U_{33}-L_{34}	9.97	34.61	3.27	2.80	2.80	-1.49	-9.26	-26.35					2.80	18.10	-1.49	-26.35	0.00	0.00	0.00	0.00	18.10	34.61	-38.00	-54.12	221.8	221.77	186.91	327.26	6244	3427.0	1.48	10799	0.99895350	7310.6	-0.079	0.57	0.57	-57.53	-65.57	1.13	0.43	2.00	0.72					-4.26	-2.88	19.73	4.49	0.00	0.00

Moment (End) - AI2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors: DL Factor: 1.30, LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30, LL Factor: 1.80

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
Per AASHTO Standard Specifications for Highway Bridges, Article 3.22.1

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1 (Case I,unsupported vs. Non-Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Min) End (k-ft)
Structure 1	L_0-L_1	-49.04	-101.19	-9.91	1.04	3.07	-3.44
	L_1-L_2	-130.93	-112.57	-0.38	2.44	-0.15	-6.78
	L_2-L_3	-126.77	-79.47	-2.63	4.98	-6.53	-6.53
	L_3-L_4	-18.53	15.80	1.41	5.05	-4.81	-12.12
	L_4-L_5	-68.87	210.28	-0.03	0.00	-3.82	-3.82
	L_5-L_6	-7.25	228.45	-1.53	6.07	-2.15	-1.67
	L_6-L_7	-62.67	177.71	-3.89	2.84	4.14	-3.13
	L_7-L_8	-7.98	461.19	-0.33	18.75	0.00	0.00
	L_8-L_9	-439.37	-23.36	2.53	0.21	8.65	-0.61
	L_9-L_{10}	-204.91	-116.77	-2.36	2.64	4.14	-3.13
	L_{10}-L_{11}	-168.36	-118.36	4.24	2.04	2.43	-4.76
	L_{11}-L_{12}	-234.50	-217.13	2.97	1.99	3.74	-6.64
	L_{12}-L_{13}	-19.53	-128.46	2.64	1.31	-1.53	-3.64
	L_{13}-L_{14}	-179.73	-425.17	2.05	1.79	1.28	-17.80
	L_{14}-L_{15}	-408.18	-267.01	4.19	1.91	-4.19	-4.19
	L_{15}-L_{16}	-209.34	-318.54	0.69	0.65	-7.38	-7.11
	L_{16}-L_{17}	-374.78	-83.83	0.00	1.40	0.00	0.00
	L_{17}-L_{18}	-170.99	-20.48	-4.66	2.47	-1.20	-0.84
	L_{18}-L_{19}	-297.50	250.73	-6.05	0.46	-0.60	-0.60
	L_{19}-L_{20}	-99.23	0.16	0.58	3.42	0.38	-0.39
	L_{20}-L_{21}	5.36	-218.26	-0.56	1.34	3.32	-7.79
	L_{21}-L_{22}	18.78	-247.31	0.73	0.84	2.49	-6.76
	L_{22}-L_{23}	1.07	-191.80	-0.66	1.41	1.34	-7.49
	L_{23}-L_{24}	-57.61	-328.61	-1.48	1.46	-4.73	-3.12
	L_{24}-L_{25}	-286.08	-298.86	-0.13	2.41	-5.38	-11.05
	L_{25}-L_{26}	-297.50	-297.50	0.00	0.00	-11.96	-11.96
	L_{26}-L_{27}	-467.27	-273.20	3.53	5.06	-16.71	-22.96
	L_{27}-L_{28}	-310.47	-45.78	4.14	7.65	-22.09	-8.29
	L_{28}-L_{29}	-272.10	-237.51	4.19	4.19	-8.29	-8.29
	L_{29}-L_{30}	-261.82	188.40	3.72	7.54	-6.34	-2.85
	L_{30}-L_{31}	-23.35	0.00	4.39	0.00	1.60	0.00
	L_{31}-L_{32}	-131.41	389.19	-6.94	13.15	-2.79	-1.34
	L_{32}-L_{33}	-164.24	-140.43	-3.42	2.06	-3.14	-7.75
	L_{33}-L_{34}	-367.38	69.52	-2.36	2.63	-4.73	-3.12
	L_{34}-L_{35}	-911.85	-326.76	5.10	0.17	37.44	-13.46
	L_{35}-L_{36}	-289.04	-42.03	2.22	0.29	12.19	-22.19
	L_{36}-L_{37}	-515.61	-35.20	6.56	2.72	8.03	-4.79
	L_{37}-L_{38}	-252.11	-256.04	1.18	1.18	3.79	-3.01
	L_{38}-L_{39}	-252.11	-256.04	1.18	3.79	3.01	-6.40
	L_{39}-L_{40}	-230.58	-46.22	3.12	5.16	0.29	-7.37
	L_{40}-L_{41}	-43.89	-183.34	3.30	6.56	-4.45	-23.56
	L_{41}-L_{42}	-43.89	-183.34	3.30	6.56	-4.45	-23.56
	L_{42}-L_{43}	-104.37	-9.61	3.69	4.71	-5.05	-6.01
	L_{43}-L_{44}	-39.90	-58.91	-54.54	-64.91	0.00	0.00
	L_{44}-L_{45}	-39.90	-58.91	-54.54	-64.91	0.00	0.00
	L_{45}-L_{46}	-65.51	170.40	3.52	3.98	-2.92	-1.68
	L_{46}-L_{47}	-38.05	43.03	-26.99	-31.13	0.00	0.00
	L_{47}-L_{48}	-78.88	87.79	0.00	0.00	-8.13	0.00
	L_{48}-L_{49}	-23.53	13.89	-3.33	-3.33	0.00	0.00
	L_{49}-L_{50}	-19.86	-197.53	-1.75	2.35	-1.52	-8.19
	L_{50}-L_{51}	-277.47	-228.86	-1.38	0.00	-5.07	-4.09
	L_{51}-L_{52}	-747.52	-264.15	0.00	38.46	-13.12	0.00
	L_{52}-L_{53}	-140.80	-80.21	-1.61	4.19	2.49	-4.40
	L_{53}-L_{54}	-298.87	-113.99	-2.29	4.96	1.89	-9.77
	L_{54}-L_{55}	-192.40	-145.70	2.80	5.29	3.27	-8.27
	L_{55}-L_{56}	-182.72	-415.40	3.67	3.43	-20.93	-18.43
	L_{56}-L_{57}	-370.18	-165.14	4.04	0.96	-17.20	-10.23
	L_{57}-L_{58}	-370.18	-165.14	4.04	0.96	-17.20	-10.23
	L_{58}-L_{59}	-304.14	-22.17	-5.37	0.47	-8.18	-1.95
	L_{59}-L_{60}	-222.88	59.03	-8.68	3.03	1.26	-1.01
	L_{60}-L_{61}	-222.88	59.03	-8.68	3.03	1.26	-1.01
	L_{61}-L_{62}	-42.77	-120.03	0.35	3.97	3.89	-5.27
	L_{62}-L_{63}	-192.98	-177.52	-0.43	0.39	2.95	-5.31
	L_{63}-L_{64}	-55.38	-320.81	-0.13	0.63	0.40	-6.73
	L_{64}-L_{65}	-64.00	-370.85	0.01	1.97	-3.06	-20.34
	L_{65}-L_{66}	-370.60	82.40	1.33	2.22	-4.40	-1.22
	L_{66}-L_{67}	-200.72	-149.84	-3.36	4.42	0.00	0.00
	L_{67}-L_{68}	-131.46	182.12	-3.36	4.42	0.00	0.00
	L_{68}-L_{69}	-131.75	166.74	-4.99	4.06	2.99	-1.18
	L_{69}-L_{70}	-31.08	34.73	-0.73	1.48	-0.41	-0.41
	L_{70}-L_{71}	-361.79	-17.90	2.66	0.28	18.60	-0.83
	L_{71}-L_{72}	-61.95	21.70	2.92	3.65	3.03	-3.67
	L_{72}-L_{73}	-189.89	5.64	3.94	4.31	1.92	-11.71
	L_{73}-L_{74}	-38.98	-56.51	3.12	1.53	-6.57	-6.36
	L_{74}-L_{75}	-66.65	-75.79	-3.54	2.32	0.86	-0.86

Zero Pos. Mom.

Start (k-ft)	End (k-ft)
0.00	0.00
0.00	0.00
0.00	0.00

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Condition: HS20 Lane
Condition: As Inspected

Vehicle Load Factors: DL Factor: 1.39, LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30, LL Factor: 1.60

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1998

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

(Case I considered in Max. Tension/Compression Load)

M_2 Information | **M_1 Information**

ZZ Axis Moments from STAAD | ZZ Axis Moment Properties | YY Axis Moments from STAAD | YY Axis Moment Properties

Location	Member	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Min) End (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)	Max. Neg. Mom. Start (k-ft)	Max. Neg. Mom. End (k-ft)	S_{top} (in^3)	S_{bot} (in^3)	Z_z (in^3)	I_z (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F$_y$/S_{bot}	M_z (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor C_{mx}	C_{mx}	Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Min) End (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)	Max. Neg. Mom. Start (k-ft)	Max. Neg. Mom. End (k-ft)	S_{top} (in^3)	S_{bot} (in^3)	Z_y (in^3)	I_{yy} (in^4)	Shape Factor	M_p (k-in)	P_{crit} (kips)	Formula 1.8 Term * F$_y$/M_{cr}	M_{cr} (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor C_{mx}	C_{mx}	Pass
Structure 1	U_0–L_1	-55.75	82.39	2.69	3.20	0.76	-0.98	-29.10	34.56	8.25	-10.62	0.00	0.00	0.00	0.00	-135.51	181.99	-54.09	84.11	13.2	13.18	15.42	20.35	2	618.4	1.54	672	1.5	652.4	-0.745	0.30	0.30	-4.73	1.52	1.23	0.39	-1.52	-0.49	13.27	4.26	16.37	-5.26	0.00	0.00	0.00	0.00	22.61	7.24	-41.62	-13.35	70.7	70.72	93.97	90.68	55.8	1.28	2992	272	0.969711	2263.1	0.321	0.73	0.73	—	—	—	—	—	—	—	—	0.523	0.110	0.64	Yes	0.493	0.271	0.77	Yes
	U_1–L_1	-14.37	23.26	-2.49	2.64	0.98	-0.99	-26.86	28.52	10.61	-10.74	0.00	0.00	0.00	0.00	-76.88	92.03	4.30	47.89	15.4	15.42	15.42	23.71	2	731.9	1.54	782	1.5	763.3	-0.835	0.27	0.27	-17.87	2.93	-0.80	0.03	0.14	-0.42	5.40	-19.88	-5.52	94.0	93.99	93.99	104.66	65.3	1.11	3454	386	0.918625	3035.4	-0.105	0.56	0.56	—	—	—	—	—	—	—	—	0.301	0.041	0.35	Yes	0.291	0.118	0.41	Yes
	U_1–L_2	5.03	-5.57	2.94	2.98	1.18	-1.34	-22.62	27.81	12.72	13.13	-14.44	0.00	0.00	0.00	-40.69	53.01	35.92	-38.59	15.4	15.42	15.42	23.71	2	731.9	1.54	782	1.5	763.3	-0.914	0.26	0.26	-9.47	7.60	2.02	0.48	-2.50	-0.64	13.47	7.17	2.02	0.48	-2.50	-0.64	-48.13	5.60	-30.26	-7.37	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.918157	3029.8	0.334	0.73	0.73	0.160	0.105	0.27	Yes	0.088	0.058	0.15	Yes	—	—	—	—	—	—	—	—	0.081	0.157	0.24	Yes
	U_2–L_2	49.94	-49.31	0.00	0.00	19.68	-19.97	0.00	0.00	64.92	-64.11	0.00	0.00	0.00	0.00	64.92	-64.11	0.00	0.00	15.4	15.42	15.42	23.71	2	731.9	1.54	782	1.5	763.3	0.000	0.30	0.30	-4.04	-17.42	0.00	0.00	0.00	0.00	0.29	0.22	152.19	-152.19	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.916878	3022.2	2.351	0.73	0.73	0.70	—	—	—	—	—	—	—	—	0.277	0.137	0.42	Yes
	U_2–L_3	57.83	-70.07	0.04	0.61	3.59	-3.81	0.46	0.14	38.74	41.09	0.00	0.00	76.19	-90.78	159.12	-189.12	19.4	19.37	19.31	29.87	3	907.0	1.54	986	1.5	958.8	-0.883	0.25	0.25	-53.62	-1.85	36.73	27.77	0.00	0.00	0.00	0.00	-132.64	-58.49	19.79	5.67	-113.4	113.37	90.38	130.15	82.8	1.15	4295	279	0.9754504	3630.7	0.441	0.78	0.78	—	—	—	—	—	—	—	—	0.592	0.137	0.69	Yes	0.514	0.182	0.69	Yes
	U_3–L_3	67.83	-68.20	0.43	0.87	3.51	-3.60	0.00	0.00	85.39	81.95	169.89	-171.69	19.4	19.37	19.31	29.87	3	907.0	1.54	986	1.5	958.8	-0.883	0.25	0.25	-66.26	-0.42	-0.05	0.00	234.33	99.11	-32.94	-12.58	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.917188	3028.4	0.226	0.69	0.69	—	—	—	—	—	—	—	—	0.592	0.137	0.69	Yes	0.514	0.182	0.69	Yes
	U_3–L_4	102.14	-112.44	0.14	0.11	4.51	-4.77	-1.49	1.18	49.75	-51.55	0.00	0.00	129.55	-143.63	238.41	-257.86	16.2	16.18	18.36	27.38	3	828.7	1.69	904	1.5	800.9	-0.925	0.23	0.23	-56.90	13.59	-1.99	0.64	7.68	1.33	-21.51	6.52	82.99	14.39	0.00	0.00	0.00	0.00	-120.59	32.66	105.83	48.83	107.3	107.33	119.31	134.33	84.5	1.25	4433	254	0.999933	3398.8	-0.271	0.49	0.49	—	—	—	—	—	—	—	—	0.514	0.092	0.56	Yes	0.443	0.224	0.51	Yes
	U_4–L_4	-10.55	7.04	-3.78	4.50	4.91	-5.88	-40.92	55.57	53.32	63.47	0.00	0.00	-102.10	114.38	101.15	-124.37	107.1	107.13	107.11	162.71	26	2056.9	1.52	5369	1.5	5302.3	-0.746	0.26	0.26	-78.11	3.65	-10.14	-3.43	13.91	3.80	-109.51	-37.00	150.20	41.05	0.00	0.00	0.00	0.00	-338.81	75.56	223.89	93.55	274.5	274.51	274.48	318.87	837.8	1.16	10523	359	0.9775257	8850.7	0.644	0.86	0.86	—	—	—	—	—	—	—	—	0.514	0.092	0.56	Yes	0.443	0.224	0.51	Yes
	U_4–L_5	-101.27	95.46	-3.28	3.61	0.14	-0.32	-35.47	39.02	1.56	-3.48	0.00	0.00	-208.50	208.65	-128.29	116.57	32.8	32.76	33.44	54.32	14	1236.0	1.66	1793	1.5	1621.6	-0.999	0.20	0.20	-595.13	-234.11	-5.10	-5.48	-4.16	-1.47	-595.13	-432.53	-573.01	-338.67	146.9	146.93	163.68	186.84	188.4	1.27	6166	379	0.9792588	4743.3	0.727	0.89	0.89	—	—	—	—	—	—	—	—	0.453	0.152	0.65	Yes	0.469	0.116	0.59	Yes
	U_5–L_5	-111.05	108.51	-4.32	5.11	-0.62	0.76	-48.70	52.33	-0.46	-1.38	0.00	0.00	-245.54	222.44	-164.92	152.98	42.9	42.74	42.74	63.30	14	1389.6	1.53	2133	1.5	2115.6	-0.759	0.28	0.28	-240.23	-95.90	-1.17	-2.24	-4.19	-2.42	-339.59	-290.45	-413.27	-298.82	173.2	173.19	173.70	202.71	247.5	1.17	6690	436	0.9815626	5623.6	0.189	0.97	0.97	—	—	—	—	—	—	—	—	0.523	0.110	0.64	Yes	0.493	0.271	0.77	Yes
	U_5–L_6	-96.41	83.86	3.60	3.76	-0.62	-0.52	-38.87	40.64	-0.18	-0.24	0.00	0.00	-209.55	202.07	-120.73	121.50	21.1	21.09	21.09	39.40	10	1137.6	1.68	1770	1.5	1544.0	-0.998	0.20	0.20	-60.40	-60.92	10.77	-1.52	-4.15	-2.44	-113.47	-147.29	-214.68	-168.79	138.9	138.94	139.93	162.64	110.7	1.17	5367	295	0.9720334	4406.8	0.786	0.91	0.91	—	—	—	—	—	—	—	—	0.509	0.094	0.61	Yes	0.483	0.179	0.67	Yes
	U_6–L_6	-60.90	75.93	-3.72	3.91	0.00	0.00	-40.18	42.27	0.00	0.00	0.00	0.00	-166.22	190.29	-79.17	98.71	17.2	17.24	17.24	26.54	2	824.7	1.54	876	1.5	853.4	-0.873	0.25	0.25	-34.19	3.17	1.05	-0.27	0.00	0.00	-19.81	-2.08	-44.45	4.12	103.1	103.08	103.08	116.41	73.3	1.13	3841	240	0.9655715	3264.9	-0.093	0.56	0.56	—	—	—	—	—	—	—	—	0.546	0.071	0.62	Yes	0.518	0.217	0.74	Yes
	U_6–L_7	-33.53	39.66	-1.96	2.06	0.00	0.00	-21.02	22.23	-0.96	-1.05	0.00	0.00	-87.02	99.61	-44.51	52.05	9.0	9.04	9.04	13.92	2	753.7	1.54	782	1.5	763.3	-0.847	0.24	0.24	-27.62	13.72	5.27	1.05	0.00	0.00	64.44	-5.60	53.72	-5.27	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.9168276	2995.2	0.613	0.80	0.80	—	—	—	—	—	—	—	—	0.546	0.071	0.62	Yes	0.518	0.217	0.74	Yes
	U_7–L_7	8.32	-15.89	-0.74	0.81	2.56	-2.68	-7.96	8.69	27.69	-28.95	0.00	0.00	-4.43	1.80	70.81	-83.38	15.4	15.42	15.42	23.71	2	731.9	1.54	782	1.5	763.3	-0.849	0.26	0.26	-42.82	-59.05	-0.11	0.29	3.35	2.76	-1.17	3.10	16.19	29.85	0.00	0.00	0.00	0.00	-58.19	-70.05	22.75	-12.09	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.9637181	2987.5	0.831	0.93	0.93	0.027	0.127	0.16	Yes	0.015	0.070	0.09	Yes	0.155	0.022	0.22	Yes
	U_8–L_8	47.73	-50.39	-3.13	3.31	2.66	-3.04	-4.29	4.46	44.99	-48.59	128.95	-136.07	15.4	15.42	15.42	23.71	2	731.9	1.54	782	1.5	763.3	-0.849	0.26	0.26	-4.24	4.46	23.72	-13.94	0.00	0.00	0.00	0.00	-68.82	-111.02	451.10	81.37	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.9637181	2987.5	0.831	0.93	0.93	0.027	0.127	0.16	Yes	0.015	0.070	0.09	Yes	0.155	0.022	0.22	Yes
	U_9–L_8	61.54	-72.81	-0.55	0.59	3.27	-3.42	-5.95	6.02	35.26	-38.95	0.00	0.00	67.11	-81.62	156.40	-174.68	19.4	19.37	19.37	29.87	3	907.0	1.54	986	1.5	958.8	-0.895	0.24	0.24	-61.67	-68.56	-0.32	0.46	7.13	-0.40	-3.49	4.94	77.01	-4.36	0.00	0.00	0.00	0.00	-113.73	-117.43	60.70	-137.58	113.4	113.37	113.37	130.15	82.8	1.15	4295	174	0.9526002	3553.9	-0.441	0.42	0.42	—	—	—	—	—	—	—	—	0.584	0.073	0.66	Yes	0.538	0.177	0.72	Yes
	U_{10}–L_9	-13.07	138.05	-0.76	0.77	3.24	-3.46	-8.25	56.57	20.27	0.00	0.00	0.00	-155.12	-161.54	290.57	-307.18	19.3	19.29	35.09	35.09	53.74	118.0	1.83	1766	1.5	1737.0	-0.963	0.22	0.22	-92.33	-109.80	-0.22	0.00	7.06	-1.33	-241.1	5.47	-76.58	-14.41	0.00	0.00	0.00	0.00	-125.24	-58.72	46.60	-113.56	148.5	148.52	147.91	167.35	201.8	1.13	5019	248	0.9647621	4729.5	0.264	0.48	0.48	—	—	—	—	—	—	—	—	0.543	0.063	0.61	Yes	0.503	0.056	0.54	Yes
	U_{11}–L_{10}	-158.01	-154.56	-0.78	0.70	6.52	-6.23	-8.42	7.57	70.39	-67.24	0.00	0.00	-187.16	-184.52	357.53	-346.62	42.1	42.74	42.74	65.30	14	1389.6	1.53	2155	1.5	2115.6	-0.968	0.21	0.21	-65.80	-69.34	-0.03	0.40	6.71	0.15	-0.28	4.34	-72.48	-6.44	0.00	0.00	0.00	0.00	-112.15	-64.74	45.49	-60.59	173.0	173.00	202.71	247.5	1.17	6690	207	0.9900553	5033.1	0.488	0.80	0.80	—	—	—	—	—	—	—	—	0.503	0.056	0.54	Yes	0.483	0.166	0.65	Yes
	U_{12}–L_{11}	-131.43	-213.61	-0.34	0.57	2.54	-5.27	-3.64	6.13	31.76	-66.86	239.71	-401.19	42.0	41.97	42.74	63.05	8	1376.0	1.50	2080	1.5	2077.5	-0.597	0.36	0.36	34.72	4.57	-0.67	-0.09	13.94	1.83	-7.23	-0.95	190.55	19.75	0.00	0.00	0.00	0.00	29.48	3.88	371.23	48.73	158.9	158.93	173.70	189.56	243.0	1.19	6256	138	0.9407040	4930.6	0.131	0.65	0.65	—	—	—	—	—	—	—	—	0.546	0.162	0.81	Yes	0.572	0.193	0.77	Yes
	U_{13}–L_{12}	-144.68	167.26	-0.37	0.50	5.98	-7.04	-10.09	11.42	0.00	0.00	0.00	0.00	-206.71	183.91	-108.60	97.73	21.1	21.09	21.09	39.40	10	1527.9	1.53	2218	1.5	2172.6	-0.759	0.28	0.28	-240.23	-95.90	-1.17	-2.24	-4.19	-2.42	-10.83	0.00	-68.93	-0.07	0.00	0.00	0.00	0.00	-10.83	0.00	-68.93	-0.07	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.9169732	2980.2	0.907	0.96	0.96	—	—	—	—	—	—	—	—	0.554	0.070	0.63	Yes	0.504	0.075	0.63	Yes
	U_{14}–L_{13}	-122.98	131.23	-4.76	5.10	0.98	-1.02	-51.35	55.04	10.63	-11.04	0.00	0.00	-271.11	289.85	-136.82	146.89	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.935	0.23	0.23	-76.81	2.26	-0.03	0.29	-0.41	-0.06	-27.7	21.8	1.0	1.93	201.3	201.30	201.30	221.31	271.8	1.10	7303	210	0.9607793	6382.4	0.073	0.63	0.63	—	—	—	—	—	—	—	—	0.472	0.044	0.52	Yes	0.442	0.123	0.57	Yes
	U_{15}–L_{14}	-117.72	125.64	-5.19	5.51	1.22	-1.27	-56.02	59.32	13.13	-13.11	0.00	0.00	-271.11	289.85	-136.82	146.89	46.7	46.71	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.935	0.23	0.23	-87.75	-58.58	-0.32	0.40	6.71	0.15	-124.58	-32.72	21.83	2.12	201.3	201.30	201.30	221.31	271.8	1.10	7303	210	0.9607793	6382.4	0.073	0.63	0.63	—	—	—	—	—	—	—	—	0.472	0.044	0.52	Yes	0.442	0.123	0.57	Yes
	U_{16}–L_{15}	-62.37	68.86	-2.79	2.97	0.78	-0.80	-30.13	32.12	8.39	-8.59	0.00	0.00	-146.36	159.24	-62.80	71.05	21.5	21.54	21.54	33.27	3	987.9	1.54	1098	1.5	1066.2	-0.919	0.23	0.23	-15.04	6.79	15.50	1.13	0.00	0.00	0.00	0.00	-6.60	36.19	60.57	-48.45	123.5	123.48	123.48	144.11	92.3	1.17	4756	183	0.9545372	3891.2	-0.800	0.28	0.28	—	—	—	—	—	—	—	—	0.549	0.046	0.60	Yes	0.506	0.145	0.66	Yes
	U_{17}–L_{16}	-37.86	43.18	-2.67	2.87	2.07	-2.12	-16.39	18.77	17.05	-18.45	0.00	0.00	-87.02	99.61	-44.51	52.05	9.0	9.04	9.04	13.92	2	753.7	1.54	782	1.5	763.3	-0.847	0.24	0.24	-27.62	13.72	5.27	1.05	0.00	0.00	-48.94	5.60	-53.72	5.27	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.9168276	2995.2	0.613	0.80	0.80	—	—	—	—	—	—	—	—	0.546	0.071	0.62	Yes	0.518	0.217	0.74	Yes
	U_{18}–L_{17}	-9.12	15.71	-2.43	2.72	1.17	-1.22	-26.24	29.41	12.59	-13.12	0.00	0.00	-68.71	84.13	-35.41	45.84	15.4	15.42	15.42	23.71	2	731.9	1.54	782	1.5	763.3	-0.877	0.27	0.27	122.25	90.42	-2.76	-2.02	2.05	0.95	-29.83	-21.84	23.61	10.24	0.00	0.00	0.00	0.00	95.60	70.23	208.22	139.73	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.9637181	2987.5	0.831	0.93	0.93	0.024	0.108	0.20	Yes	0.064	0.057	0.15	Yes	—	—	—	—	—	—	—	—	0.592	0.137	0.69	Yes	0.514	0.182	0.69	Yes
	U_{19}–L_{18}	14.83	-14.93	-2.03	2.11	0.97	-1.10	21.92	22.82	10.52	-11.87	0.00	0.00	-28.22	30.04	42.07	-45.12	15.4	15.42	15.42	23.71	2	731.9	1.54	782	1.5	763.3	-0.922	0.23	0.23	35.73	56.96	0.25	-1.05	1.51	0.61	3.54	2.11	2.68	35.43	0.00	0.00	0.00	0.00	130.25	101.60	199.88	144.98	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.9683838	2980.2	0.907	0.96	0.96	0.152	0.104	0.26	Yes	0.084	0.057	0.15	Yes	—	—	—	—	—	—	—	—	0.592	0.137	0.69	Yes	0.514	0.182	0.69	Yes
	U_{20}–L_{19}	39.68	-43.44	0.00	0.00	17.31	-17.59	0.00	0.00	57.08	-56.40	0.00	0.00	57.08	-56.40	0.00	0.00	15.4	15.42	15.42	23.71	2	731.9	1.54	782	1.5	763.3	0.000	0.30	0.30	28.32	4.18	0.00	0.00	0.00	0.00	36.62	0.00	134.00	-134.00	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.9168737	2975.3	0.613	0.80	0.80	—	—	—	—	—	—	—	—	0.546	0.071	0.62	Yes	0.518	0.217	0.74	Yes
	U_{21}–L_{20}	88.70	-97.90	0.00	0.00	-4.09	4.09	0.00	0.00	43.18	-44.18	0.00	0.00	115.43	-127.27	208.99	-223.00	20.8	20.80	20.67	34.64	3	1037.5	1.67	1143	1.5	1029.6	-0.937	0.23	0.23	-47.73	-66.37	0.00	0.00	2.95	0.86	0.00	0.00	21.83	9.26	0.00	0.00	0.00	0.00	-62.05	-112.28	6.91	-82.22	130.7	130.71	129.79	152.30	108.5	1.17	5026	241	0.968833	4156.1	0.553	0.82	0.82	—	—	—	—	—	—	—	—	0.392	0.072	0.47	Yes	0.390	0.155	0.59	Yes
	U_{22}–L_{21}	-153.02	-153.00	0.00	0.00	5.27	-5.27	-42.93	42.93	0.00	0.00	0.00	0.00	-188.89	-188.89	32.62	-32.62	15.4	15.42	15.42	23.71	2	731.9	1.54	782	1.5	763.3	-0.944	0.22	0.22	-60.88	-60.88	0.00	0.00	0.00	0.00	-105.28	63.50	141.37	-22.53	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.9169562	2968.3	0.907	0.96	0.96	—	—	—	—	—	—	—	—	0.592	0.137	0.69	Yes	0.514	0.182	0.69	Yes
	U_{23}–L_{22}	140.07	-146.97	0.01	0.12	5.60	-6.09	0.06	1.34	60.48	-64.79	0.00	0.00	182.23	-188.16	312.13	-331.44	43.0	43.01	42.96	68.66	14	1479.6	1.60	2266	1.5	2129.0	-0.945	0.22	0.22	-72.29	-88.70	-0.82	0.72	6.60	-0.86	-8.66	7.75	71.23	-9.27	0.00	0.00	0.00	0.00	-108.42	-88.51	60.36	-135.38	185.0	184.95	184.93	225.21	249.1	1.22	7432	308	0.9732362	5940.0	-0.446	0.42	0.42	—	—	—	—	—	—	—	—	0.446	0.049	0.50	Yes	0.422	0.146	0.57	Yes
	U_{24}–L_{23}	148.94	-153.41	0.16	0.30	5.62	-6.09	-7.12	3.19	60.69	-63.00	0.00	0.00	189.90	-192.53	325.10	337.23	43.0	43.01	43.24	43.76	70.66	14	1479.6	1.60	2266	1.5	2129.0	-0.964	0.21	0.21	91.48	-80.32	-0.76	0.69	-1.46	-0.71	-11.45	-118.41	186.93	-12.55	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.9637181	2987.5	0.831	0.93	0.93	—	—	—	—	—	—	—	—	0.515	0.060	0.58	Yes	0.484	0.166	0.65	Yes
	U_{25}–L_{24}	135.37	-135.37	0.00	0.00	5.17	-5.17	-39.56	39.56	0.00	0.00	0.00	0.00	-173.93	-173.93	30.04	-30.04	15.4	15.42	15.42	23.71	2	731.9	1.54	782	1.5	763.3	-0.944	0.22	0.22	-56.07	-56.07	0.00	0.00	0.00	0.00	-97.00	58.49	130.23	-20.75	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.9169562	2968.3	0.907	0.96	0.96	—	—	—	—	—	—	—	—	0.592	0.137	0.69	Yes	0.514	0.182	0.69	Yes
	U_{26}–L_{25}	146.56	-146.56	0.00	0.00	5.09	-5.09	-38.94	38.94	0.00	0.00	0.00	0.00	-171.26	-171.26	29.58	-29.58	15.4	15.42	15.42	23.71	2	731.9	1.54	782	1.5	763.3	-0.944	0.22	0.22	-55.20	-55.20	0.00	0.00	0.00	0.00	-95.48	57.60	128.23	-20.43	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.9169562	2968.3	0.907	0.96	0.96	—	—	—	—	—	—	—	—	0.592	0.137	0.69	Yes	0.514	0.182	0.69	Yes
	U_{27}–L_{26}	140.07	-140.07	0.00	0.00	4.89	-4.89	-36.79	36.79	0.00	0.00	0.00	0.00	-164.48	-164.48	28.40	-28.40	15.4	15.42	15.42	23.71	2	731.9	1.54	782	1.5	763.3	-0.944	0.22	0.22	-53.00	-53.00	0.00	0.00	0.00	0.00	-91.72	55.31	123.14	-19.62	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.9169562	2968.3	0.907	0.96	0.96	—	—	—	—	—	—	—	—	0.592	0.137	0.69	Yes	0.514	0.182	0.69	Yes
	U_{28}–L_{27}	132.84	-132.84	0.00	0.00	4.63	-4.63	-34.87	34.87	0.00	0.00	0.00	0.00	-155.89	-155.89	26.92	-26.92	15.4	15.42	15.42	23.71	2	731.9	1.54	782	1.5	763.3	-0.944	0.22	0.22	-50.23	-50.23	0.00	0.00	0.00	0.00	-86.93	52.43	116.71	-18.59	94.0	93.99	93.99	104.66	65.3	1.11	3454	384	0.9169562	2968.3	0.907	0.96	0.96	—	—	—	—	—	—	—	—	0.592	0.137	0.69	Yes	0.514	0.182	0.69	Yes
	U_{29}–L_{28}	125.93	-125.93	0.00	0.00	4.39	-4.39	-33.05	33.05	0.00	0.00	0.00	0.00	-147.71	-147.71	25.51	-25.51	15.4	15.42	15.42	23.71	2	731.9	1.54	782	1.5	763.3	-0.944	0.22	0.22	-47.59	-47.59	0.00	0

Moment (End) - Al2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.83

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	U_1-L_1	-23.63	-7.60	-1.15	0.77	0.52	-0.25	-12.45	8.26	3.40	-2.70
	U_1-L_2	-3.36	-8.44	-0.95	0.22	0.40	-0.15	-10.30	2.33	4.32	-1.64
	U_1-L_3	-0.06	-9.71	-1.01	0.10	-0.20	-0.23	-10.51	-1.08	-1.26	-2.43
	U_1-L_4	7.94	-13.41	0.46	0.12	-0.62	-0.97	4.92	1.25	-8.80	-10.49
	U_2-L_1	-14.57	18.47	0.21	0.23	0.33	-0.07	-14.12	14.29	2.23	-7.35
	U_2-L_2	-37.80	77.38	-2.14	3.27	0.00	0.00	-69.19	177.02	-49.14	100.60
	U_2-L_3	-73.38	78.46	-2.12	3.19	0.00	0.00	-183.47	185.98	-90.48	94.62
	U_2-L_4	-9.33	102.64	-0.77	4.02	0.00	0.00	-8.31	43.45	0.00	0.00
	U_3-L_1	-5.01	118.90	0.47	3.64	0.37	-0.15	-2.03	35.22	0.00	-1.59
	U_3-L_2	-78.82	74.40	-2.29	2.95	0.35	-0.11	-24.78	31.81	3.74	-1.14
	U_3-L_3	-64.28	73.58	-1.56	2.43	0.00	0.00	-16.85	28.29	0.00	0.00
	U_3-L_4	-19.98	29.63	-0.48	0.72	0.00	0.00	-24.00	29.05	0.00	0.00
	U_4-L_1	-65.20	48.77	-2.26	2.10	0.00	0.00	-24.40	22.71	0.00	0.00
	U_4-L_2	-24.89	8.62	-1.44	0.36	0.00	0.00	-15.60	3.93	0.00	0.00
	U_4-L_3	-0.81	-22.63	-0.26	-0.86	0.00	0.00	-1.05	-19.68	0.00	0.00
	U_4-L_4	-25.30	9.99	-1.47	1.00	0.37	-0.33	-15.89	10.84	0.43	-3.52
	U_5-L_1	-37.50	20.09	-2.26	1.46	0.36	-0.33	-22.46	13.77	3.66	-3.53
	U_5-L_2	-101.98	74.35	-3.64	3.15	0.50	-0.50	-39.31	34.03	5.44	-5.39
	U_5-L_3	-115.65	79.79	-4.17	3.22	0.40	-0.42	-45.05	34.51	4.49	-4.48
	U_5-L_4	-76.53	79.74	-1.43	2.50	0.11	-0.25	-15.41	26.99	1.14	-2.73
	U_6-L_1	-109.78	99.44	-4.01	3.75	0.67	-0.68	-43.35	40.47	7.20	-7.37
	U_6-L_2	-99.86	79.41	-3.83	3.06	0.93	-0.79	-41.34	33.00	10.04	-8.58
	U_6-L_3	-83.07	53.38	-2.22	2.05	0.00	0.00	-24.13	17.84	0.00	0.00
	U_6-L_4	-20.34	9.87	-1.76	1.28	0.63	-0.54	-18.96	13.85	6.76	-5.80
	U_7-L_1	-39.13	11.28	-1.38	0.51	0.00	0.00	-14.96	7.42	0.00	0.00
	U_7-L_2	6.85	-23.86	0.00	0.00	0.59	-0.67	0.00	0.00	0.00	0.00
	U_7-L_3	-44.40	35.30	-1.29	0.91	-0.48	0.15	-13.92	9.86	-5.14	1.66
	U_7-L_4	-96.54	69.68	-3.80	2.93	-1.08	0.35	-41.70	23.76	0.00	0.00
	U_8-L_1	-85.37	67.20	-3.98	2.19	0.00	0.00	-42.08	23.63	0.00	0.00
	U_8-L_2	-37.50	20.09	-2.26	1.46	0.36	-0.33	-46.66	25.77	3.66	-3.53
	U_8-L_3	-109.81	116.32	-4.20	4.38	0.00	0.00	-45.39	47.25	0.00	0.00
	U_8-L_4	-141.94	130.59	-5.79	5.00	0.99	-0.90	-62.05	54.01	10.71	-8.07
	U_9-L_1	-84.37	133.38	-2.22	4.98	0.63	-0.25	-32.75	57.13	6.76	-2.63
	U_9-L_2	-11.95	79.18	-1.21	3.64	0.95	-0.82	-13.10	29.36	10.25	-8.83
	U_9-L_3	-77.25	77.25	-4.22	4.22	0.00	0.00	-46.97	44.66	0.00	0.00
	U_9-L_4	-66.17	89.96	-4.28	5.00	0.94	-0.72	-46.20	53.95	10.16	-7.77
	U_{10}-L_1	-17.98	70.26	-1.26	4.03	0.00	0.00	-46.20	14.56	0.00	0.00
	U_{10}-L_2	-56.05	72.68	-3.26	3.03	0.77	-0.26	-35.24	32.76	8.28	-2.68
	U_{10}-L_3	-37.83	37.59	-2.46	1.85	0.46	-0.13	-26.35	20.00	4.99	-1.35
	U_{10}-L_4	-10.04	3.78	-0.80	0.35	-0.21	-0.37	-8.64	3.74	-2.29	-4.00
	U_{11}-L_1	-19.42	8.78	-1.29	0.56	-0.10	-0.14	-16.65	11.86	-6.18	-5.15
	U_{11}-L_2	-19.42	19.66	-1.56	1.10	-0.62	-0.12	-16.65	11.86	-6.18	-1.24
	U_{11}-L_3	-46.48	58.24	-3.60	3.03	0.00	0.00	-27.75	27.75	-2.08	-0.69
	U_{11}-L_4	-46.48	58.24	-3.60	3.03	0.00	0.00	-38.83	32.71	0.00	0.00
	U_{12}-L_1	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	U_{12}-L_2	-49.31	71.94	-5.24	4.91	0.74	-0.66	-49.31	71.94	-5.24	4.18
	U_{12}-L_3	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{12}-L_4	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{13}-L_1	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{13}-L_2	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{13}-L_3	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{13}-L_4	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{14}-L_1	-78.35	71.28	-3.08	3.11	0.37	-0.32	-33.33	33.57	3.95	-3.18
	U_{14}-L_2	-78.35	71.28	-3.08	3.11	0.37	-0.32	-33.33	33.57	3.95	-3.18
	U_{14}-L_3	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{14}-L_4	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{15}-L_1	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{15}-L_2	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{15}-L_3	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{15}-L_4	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{16}-L_1	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	U_{16}-L_2	-49.31	71.94	-5.24	4.91	0.74	-0.66	-49.31	71.94	-5.24	4.18
	U_{16}-L_3	-46.48	58.24	-3.60	3.03	0.00	0.00	-38.83	32.71	0.00	0.00
	U_{16}-L_4	-46.48	58.24	-3.60	3.03	0.00	0.00	-27.75	27.75	-2.08	-0.69
	U_{17}-L_1	-19.42	19.66	-1.56	1.10	-0.62	-0.12	-16.65	11.86	-6.18	-1.24
	U_{17}-L_2	-19.42	8.78	-1.29	0.56	-0.10	-0.14	-16.65	11.86	-6.18	-5.15
	U_{17}-L_3	-10.04	3.78	-0.80	0.35	-0.21	-0.37	-8.64	3.74	-2.29	-4.00
	U_{17}-L_4	-37.83	37.59	-2.46	1.85	0.46	-0.13	-26.35	20.00	4.99	-1.35
	U_{18}-L_1	-56.05	72.68	-3.26	3.03	0.77	-0.26	-35.24	32.76	8.28	-2.68
	U_{18}-L_2	-37.50	20.09	-2.26	1.46	0.36	-0.33	-46.66	25.77	3.66	-3.53
	U_{18}-L_3	-109.81	116.32	-4.20	4.38	0.00	0.00	-45.39	47.25	0.00	0.00
	U_{18}-L_4	-141.94	130.59	-5.79	5.00	0.99	-0.90	-62.05	54.01	10.71	-8.07
	U_{19}-L_1	-84.37	133.38	-2.22	4.98	0.63	-0.25	-32.75	57.13	6.76	-2.63
	U_{19}-L_2	-11.95	79.18	-1.21	3.64	0.95	-0.82	-13.10	29.36	10.25	-8.83
	U_{19}-L_3	-77.25	77.25	-4.22	4.22	0.00	0.00	-46.97	44.66	0.00	0.00
	U_{19}-L_4	-66.17	89.96	-4.28	5.00	0.94	-0.72	-46.20	53.95	10.16	-7.77
	U_{20}-L_1	-17.98	70.26	-1.26	4.03	0.00	0.00	-46.20	14.56	0.00	0.00
	U_{20}-L_2	-56.05	72.68	-3.26	3.03	0.77	-0.26	-35.24	32.76	8.28	-2.68
	U_{20}-L_3	-37.83	37.59	-2.46	1.85	0.46	-0.13	-26.35	20.00	4.99	-1.35
	U_{20}-L_4	-10.04	3.78	-0.80	0.35	-0.21	-0.37	-8.64	3.74	-2.29	-4.00
	U_{21}-L_1	-19.42	8.78	-1.29	0.56	-0.10	-0.14	-16.65	11.86	-6.18	-5.15
	U_{21}-L_2	-19.42	19.66	-1.56	1.10	-0.62	-0.12	-16.65	11.86	-6.18	-1.24
	U_{21}-L_3	-46.48	58.24	-3.60	3.03	0.00	0.00	-38.83	32.71	0.00	0.00
	U_{21}-L_4	-46.48	58.24	-3.60	3.03	0.00	0.00	-27.75	27.75	-2.08	-0.69
	U_{22}-L_1	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	U_{22}-L_2	-49.31	71.94	-5.24	4.91	0.74	-0.66	-49.31	71.94	-5.24	4.18
	U_{22}-L_3	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{22}-L_4	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{23}-L_1	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{23}-L_2	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{23}-L_3	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{23}-L_4	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{24}-L_1	-78.35	71.28	-3.08	3.11	0.37	-0.32	-33.33	33.57	3.95	-3.18
	U_{24}-L_2	-78.35	71.28	-3.08	3.11	0.37	-0.32	-33.33	33.57	3.95	-3.18
	U_{24}-L_3	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{24}-L_4	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{25}-L_1	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{25}-L_2	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{25}-L_3	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{25}-L_4	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{26}-L_1	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	U_{26}-L_2	-49.31	71.94	-5.24	4.91	0.74	-0.66	-49.31	71.94	-5.24	4.18
	U_{26}-L_3	-46.48	58.24	-3.60	3.03	0.00	0.00	-38.83	32.71	0.00	0.00
	U_{26}-L_4	-46.48	58.24	-3.60	3.03	0.00	0.00	-27.75	27.75	-2.08	-0.69
	U_{27}-L_1	-19.42	19.66	-1.56	1.10	-0.62	-0.12	-16.65	11.86	-6.18	-1.24
	U_{27}-L_2	-19.42	8.78	-1.29	0.56	-0.10	-0.14	-16.65	11.86	-6.18	-5.15
	U_{27}-L_3	-10.04	3.78	-0.80	0.35	-0.21	-0.37	-8.64	3.74	-2.29	-4.00
	U_{27}-L_4	-37.83	37.59	-2.46	1.85	0.46	-0.13	-26.35	20.00	4.99	-1.35
	U_{28}-L_1	-56.05	72.68	-3.26	3.03	0.77	-0.26	-35.24	32.76	8.28	-2.68
	U_{28}-L_2	-37.50	20.09	-2.26	1.46	0.36	-0.33	-46.66	25.77	3.66	-3.53
	U_{28}-L_3	-109.81	116.32	-4.20	4.38	0.00	0.00	-45.39	47.25	0.00	0.00
	U_{28}-L_4	-141.94	130.59	-5.79	5.00	0.99	-0.90	-62.05	54.01	10.71	-8.07
	U_{29}-L_1	-84.37	133.38	-2.22	4.98	0.63	-0.25	-32.75	57.13	6.76	-2.63
	U_{29}-L_2	-11.95	79.18	-1.21	3.64	0.95	-0.82	-13.10	29.36	10.25	-8.83
	U_{29}-L_3	-77.25	77.25	-4.22	4.22	0.00	0.00	-46.97	44.66	0.00	0.00
	U_{29}-L_4	-66.17	89.96	-4.28	5.00	0.94	-0.72	-46.20	53.95	10.16	-7.77
	U_{30}-L_1	-17.98	70.26	-1.26	4.03	0.00	0.00	-46.20	14.56	0.00	0.00
	U_{30}-L_2	-56.05	72.68	-3.26	3.03	0.77	-0.26	-35.24	32.76	8.28	-2.68
	U_{30}-L_3	-37.83	37.59	-2.46	1.85	0.46	-0.13	-26.35	20.00	4.99	-1.35
	U_{30}-L_4	-10.04	3.78	-0.80	0.35	-0.21	-0.37	-8.64	3.74	-2.29	-4.00
	U_{31}-L_1	-19.42	8.78	-1.29	0.56	-0.10	-0.14	-16.65	11.86	-6.18	-5.15
	U_{31}-L_2	-19.42	19.66	-1.56	1.10	-0.62	-0.12	-16.65	11.86	-6.18	-1.24
	U_{31}-L_3	-46.48	58.24	-3.60	3.03	0.00	0.00	-38.83	32.71	0.00	0.00
	U_{31}-L_4	-46.48	58.24	-3.60	3.03	0.00	0.00	-27.75	27.75	-2.08	-0.69
	U_{32}-L_1	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	U_{32}-L_2	-49.31	71.94	-5.24	4.91	0.74	-0.66	-49.31	71.94	-5.24	4.18
	U_{32}-L_3	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{32}-L_4	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{33}-L_1	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{33}-L_2	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{33}-L_3	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{33}-L_4	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{34}-L_1	-78.35	71.28	-3.08	3.11	0.37	-0.32	-33.33	33.57	3.95	-3.18
	U_{34}-L_2	-78.35	71.28	-3.08	3.11	0.37	-0.32	-33.33	33.57	3.95	-3.18
	U_{34}-L_3	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{34}-L_4	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{35}-L_1	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{35}-L_2	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{35}-L_3	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{35}-L_4	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{36}-L_1	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	U_{36}-L_2	-49.31	71.94	-5.24	4.91	0.74	-0.66	-49.31	71.94	-5.24	4.18
	U_{36}-L_3	-46.48	58.24	-3.60	3.03	0.00	0.00	-38.83	32.71	0.00	0.00
	U_{36}-L_4	-46.48	58.24	-3.60	3.03	0.00	0.00	-27.75	27.75	-2.08	-0.69
	U_{37}-L_1	-19.42	19.66	-1.56	1.10	-0.62	-0.12	-16.65	11.86	-6.18	-1.24
	U_{37}-L_2	-19.42	8.78	-1.29	0.56	-0.10	-0.14	-16.65	11.86	-6.18	-5.15
	U_{37}-L_3	-10.04	3.78	-0.80	0.35	-0.21	-0.37	-8.64	3.74	-2.29	-4.00
	U_{37}-L_4	-37.83	37.59	-2.46	1.85	0.46	-0.13	-26.35	20.00	4.99	-1.35
	U_{38}-L_1	-56.05	72.68	-3.26	3.03	0.77	-0.26	-35.24	32.76	8.28	-2.68
	U_{38}-L_2	-37.50	20.09	-2.26	1.46	0.36	-0.33	-46.66	25.77	3.66	-3.53
	U_{38}-L_3	-109.81	116.32	-4.20	4.38	0.00	0.00	-45.39	47.25	0.00	0.00
	U_{38}-L_4	-141.94	130.59	-5.79	5.00	0.99	-0.90	-62.05	54.01	10.71	-8.07
	U_{39}-L_1	-84.37	133.38	-2.22	4.98	0.63	-0.25	-32.75	57.13	6.76	-2.63
	U_{39}-L_2	-11.95	79.18	-1.21	3.64	0.95	-0.82	-13.10	29.36	10.25	-8.83
	U_{39}-L_3	-77.25	77.25	-4.22	4.22	0.00	0.00	-46.97	44.66	0.00	0.00
	U_{39}-L_4	-66.17	89.96	-4.28	5.00	0.94	-0.72	-46.20	53.95	10.16	-7.77
	U_{40}-L_1	-17.98	70.26	-1.26	4.03	0.00	0.00	-46.20	14.56	0.00	0.00
	U_{40}-L_2	-56.05	72.68	-3.26	3.03	0.77	-0.26	-35.24	32.76	8.28	-2.68
	U_{40}-L_3	-37.83	37.59	-2.46	1.85	0.46	-0.13	-26.35	20.00	4.99	-1.35
	U_{40}-L_4	-10.04	3.78	-0.80	0.35	-0.21	-0.37	-8.64	3.74	-2.29	-4.00
	U_{41}-L_1	-19.42	8.78	-1.29	0.56	-0.10	-0.14	-16.65	11.86	-6.18	-5.15
	U_{41}-L_2	-19.42	19.66	-1.56	1.10	-0.62	-0.12	-16.65	11.86	-6.18	-1.24
	U_{41}-L_3	-46.48	58.24	-3.60	3.03	0.00	0.00	-38.83	32.71	0.00	0.00
	U_{41}-L_4	-46.48	58.24	-3.60	3.03	0.00	0.00	-27.75	27.75	-2.08	-0.69
	U_{42}-L_1	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	U_{42}-L_2	-49.31	71.94	-5.24	4.91	0.74	-0.66	-49.31	71.94	-5.24	4.18
	U_{42}-L_3	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{42}-L_4	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{43}-L_1	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{43}-L_2	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{43}-L_3	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{43}-L_4	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{44}-L_1	-78.35	71.28	-3.08	3.11	0.37	-0.32	-33.33	33.57	3.95	-3.18
	U_{44}-L_2	-78.35	71.28	-3.08	3.11	0.37	-0.32	-33.33	33.57	3.95	-3.18
	U_{44}-L_3	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{44}-L_4	-76.62	55.14	-3.80	2.57	0.00	0.00	-41.00	27.79	0.00	0.00
	U_{45}-L_1	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{45}-L_2	-36.18	54.54	-1.56	4.51	0.99	-0.78	-16.80	48.74	10.74	-8.43
	U_{45}-L_3	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{45}-L_4	-69.31	71.94	-5.24	4.91	0.74	-0.66	-56.59	53.00	8.04	-7.13
	U_{46}-L_1	-54.27	68.32	-4.38	4.23	0.65	-0.17	-47.33	45.65	7.04	-1.81
	U_{46}-L_2	-49.31	71.94	-5.24	4.91	0.74	-0.66	-49.31	71.94	-5.24	4.18
	U_{46}-L_3	-46.48	58.24	-3.60	3.03	0.00	0.00	-38.83	32.71	0.00	0.00
	U_{46}-L_4	-46.48	58.24	-3.60	3.03	0.00	0.00	-27.75	27.75	-2.08	-0.69
	U_{47}-L_1	-19.42	19.66	-1.56	1.10	-0.62	-0.12	-16.65	11.86	-6.18	-1.24
	U_{47}-L_2	-19.42	8.78	-1.29	0.56	-0.10	-0.14	-16.65	11.86	-6.18	-5.15
	U_{47}-L_3	-10.04	3.78	-0.80	0.35	-0.21	-0.37	-8.64	3.74	-2.29	-4.00
	U_{47}-L_4	-37.83	37.59	-2.46	1.85	0.46	-0.13	-26.35	20.00	4.99	-1.35
	U_{48}-L_1	-56.05	72.68	-3.26	3.03	0.77	-0.26	-35.24	32.76	8.28	-2.68
	U_{48}-L_2	-37.50	20.09	-2.26	1.46	0.36	-0.33	-46.66	25.77	3.66	-3.53
	U_{48}-L_3	-109.81	116.32	-4.20	4.38	0.00	0.00	-45.39	47.25	0.00	0.00
	U_{48}-L_4	-141.94	130.59	-5.79	5.00	0.99	-0.90	-62.05	54.01	10.71	-8.07
	U_{49}-L_1	-84.37	133.38	-2.22	4.98	0.63	-0.25	-32.75	57.13	6.76	-2.63
	U_{49}-L_2	-11.95	79.18	-1.21	3.64	0.95	-0.82	-13.10	29.36	10.25	-8.83
	U_{49}-L_3	-77.25	77.25	-4.22	4.22	0.00	0.00	-46.97	44.66	0.00	0.00
	U_{49}-L_4	-66.17	89.96	-4.28	5.00	0.94	-0.72	-46.20	53.95	10.16	-7.77
	U_{50}-L_1	-17.98	70.26	-1.26	4.03	0.00	0.00	-46.20	14.56

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Max) Start (k-ft)	Pedestrian Load (Max) End (k-ft)	Lane Reduction & Impact Live Load Start (k-ft)	Lane Reduction & Impact Live Load End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)
Structure 1	U_1~U_2	-75.17	-0.72	-1.14	1.61	1.86	-5.70	-10.22	14.45	16.70	-51.28
	U_2~U_3	-46.62	-20.29	0.29	-2.09	-5.46	0.00	0.00	0.00	-55.18	-28.38
	U_3~U_4	-112.29	-86.52	1.37	3.60	-3.01	-5.58	12.30	32.42	-27.12	-50.21
	U_4~U_5	-75.71	-66.12	2.31	3.37	-4.83	-3.39	20.76	30.31	-43.46	-122.32
	U_5~L_5	-9.25	-61.62	1.54	3.49	-15.94	-3.11	17.44	31.37	-88.48	-27.98
	L_0~U_1	42.76	120.21	-2.02	6.14	-4.83	-0.16	-16.18	55.22	-43.44	-1.48
	U_1~L_1	93.19	43.60	-4.04	2.96	-12.06	-5.23	24.42	17.09	-32.46	-9.73
	L_1~U_2	-47.38	526.15	-7.25	21.66	0.00	0.00	-202.95	1106.33	-61.60	684.00
	U_2~L_2	475.03	-124.35	4.15	1.01	10.87	-7.12	37.33	9.09	57.83	-64.11
	L_2~U_3	46.82	20.59	1.44	2.35	1.01	-4.36	12.92	21.11	9.11	39.38
	U_3~L_3	64.59	-18.78	3.26	1.79	2.61	-7.35	21.22	7.45	18.03	-21.53
	L_3~U_4	27.91	-140.51	2.63	1.39	-1.33	-8.66	23.63	12.47	-11.96	-77.82
	U_4~L_4	-106.12	-155.13	2.04	0.74	-0.54	-5.91	18.38	6.62	-4.87	-33.21
	L_4~U_5	-138.04	-262.79	1.36	0.10	-0.25	-3.16	12.66	0.80	-1.62	-7.11
	U_5~L_5	-245.80	-183.07	1.35	1.02	-25.24	-6.95	12.11	9.22	-227.20	-62.58
	L_5~U_6	-123.51	-327.01	1.72	0.19	-4.92	-9.61	15.48	1.75	-44.25	-86.46
	U_6~L_6	-269.97	-145.19	0.59	0.05	-14.64	-4.28	5.28	0.43	-131.88	-38.54
	L_6~U_7	-134.36	-67.49	-0.86	1.75	0.65	-0.36	-7.72	15.72	5.37	-3.15
	U_7~L_7	-170.82	-20.32	7.02	1.05	-3.89	-2.20	-63.18	9.47	-35.03	-1.79
	L_7~U_8	-186.22	-23.42	-5.28	4.19	0.58	-0.95	-47.48	37.69	5.19	-8.59
	U_8~L_8	114.62	-28.71	5.10	1.96	-1.54	0.11	45.88	17.61	-41.88	0.00
	L_8~U_9	-71.24	-180.99	-0.28	2.30	0.01	-10.48	-2.53	20.74	0.11	-94.35
	U_9~L_9	-327.34	-325.40	1.49	3.33	-8.57	-12.42	13.37	29.93	-77.09	-111.61
	L_9~U_{10}	-336.58	-341.71	2.89	3.68	-14.71	-9.61	26.01	33.16	-94.15	-103.82
	U_{10}~L_{10}	-396.14	-197.74	3.27	6.53	-11.58	-6.58	29.46	58.73	-104.18	-69.22
	L_{10}~U_{11}	-344.18	-179.44	5.02	4.37	-8.84	-27.29	45.19	39.38	-79.55	-245.57
	U_{11}~L_{11}	-226.16	-295.72	3.60	4.96	-22.69	-24.55	32.41	44.64	-248.33	-89.37
	L_{11}~U_{12}	-350.21	-90.73	-3.39	5.74	-6.73	-9.32	30.47	51.62	-60.54	-83.87
	U_{12}~L_{12}	-75.35	-75.35	4.42	6.07	-20.11	-28.51	40.07	54.61	-181.58	-258.51
	L_{12}~U_{13}	-167.09	-39.84	5.51	5.42	-8.65	-2.03	49.69	48.78	-81.42	-18.23
	U_{13}~L_{13}	-109.78	170.74	6.77	7.32	0.00	0.00	-87.91	65.91	0.00	0.00
	L_{13}~U_{14}	-8.79	-42.77	5.50	6.35	-8.79	-46.84	-42.77	55.90	-46.84	0.00
	U_{14}~L_{14}	-261.01	1266.00	-16.35	40.66	0.00	0.00	-147.17	365.93	0.00	0.00
	L_{14}~U_{15}	1192.78	1192.78	5.99	5.99	0.00	0.00	31.91	31.91	202.92	202.92
	U_{15}~L_{15}	-25.29	11.66	1.69	4.86	-1.56	-8.44	14.27	43.74	-14.06	-58.00
	L_{15}~U_{16}	23.34	23.34	2.63	2.63	-8.44	-8.44	24.00	24.00	-58.00	-58.00
	U_{16}~L_{16}	150.60	33.06	2.76	4.81	5.61	-12.91	24.86	43.28	45.12	-116.22
	L_{16}~U_{17}	147.37	4.37	3.82	4.77	1.74	-8.23	34.37	42.89	15.66	-74.04
	U_{17}~L_{17}	123.51	327.01	1.72	0.19	-4.92	-9.61	15.48	1.75	-44.25	-86.46
	L_{17}~U_{18}	-31.69	-33.99	3.66	4.08	-1.93	-8.31	32.95	36.74	-17.41	-74.78
	U_{18}~L_{18}	-86.03	-77.99	3.95	4.35	-2.89	-8.39	35.22	39.13	-26.01	-75.54
	L_{18}~U_{19}	-60.96	-66.58	3.59	3.90	-23.80	-7.59	32.34	35.13	-214.20	-68.33
	U_{19}~L_{19}	-21.55	-21.55	4.02	4.02	-8.60	-8.60	36.20	36.20	-77.41	-77.41
	L_{19}~U_{20}	-33.01	-28.69	4.02	4.10	-12.20	-3.62	36.20	36.89	-109.81	-32.54
	U_{20}~L_{20}	-15.13	113.78	4.57	3.57	-4.23	-2.20	41.09	32.14	-38.06	-19.81
	L_{20}~U_{21}	-122.00	-122.00	4.23	4.23	-0.84	-0.84	-122.00	38.07	-7.53	-7.53
	U_{21}~L_{21}	-2.74	209.84	-4.98	5.25	0.00	0.00	-44.86	83.21	0.00	0.00
	L_{21}~U_{22}	5.84	5.84	0.52	0.52	0.00	0.00	29.43	29.43	0.00	0.00
	U_{22}~L_{22}	-122.51	1157.58	-8.80	42.19	0.00	0.00	-79.16	379.69	0.00	0.00
	L_{22}~U_{23}	1154.91	-197.36	5.83	3.85	22.58	-12.51	52.47	34.68	203.26	-112.61
	U_{23}~L_{23}	84.76	-84.76	-7.89	7.89	-2.63	2.63	0.00	0.00	0.00	0.00
	L_{23}~U_{24}	178.89	-59.81	4.18	5.10	6.78	-13.62	37.23	44.97	61.03	-122.54
	U_{24}~L_{24}	68.66	-68.66	-5.53	5.53	-1.84	1.84	0.00	0.00	0.00	0.00
	L_{24}~U_{25}	68.66	178.68	5.94	4.88	-4.51	-14.92	53.44	43.93	-40.58	-134.29
	U_{25}~L_{25}	2.16	295.72	3.60	4.96	-2.89	-8.31	32.95	36.74	-17.41	-74.78
	L_{25}~U_{26}	-236.51	-153.10	4.52	3.97	-8.93	-27.47	40.68	39.70	-80.34	-247.23
	U_{26}~L_{26}	-98.60	-313.21	4.78	4.50	-27.26	-9.46	43.01	40.46	-245.38	-85.18
	L_{26}~U_{27}	-159.58	-159.58	4.21	4.21	-8.42	-8.42	38.04	38.04	-76.08	-76.08
	U_{27}~L_{27}	-350.37	-386.86	3.52	3.96	-26.81	-7.65	31.67	8.62	-241.25	-68.86
	L_{27}~U_{28}	-279.39	-117.76	-9.22	1.95	-8.40	-1.08	-82.95	17.51	-75.60	-9.76
	U_{28}~L_{28}	-262.51	-271.61	7.10	6.57	-4.34	-2.52	63.93	59.11	-39.06	-22.68
	L_{28}~U_{29}	-186.32	-74.12	-8.89	4.59	1.82	-1.17	-82.00	41.29	16.41	-10.56
	U_{29}~L_{29}	139.08	-187.97	-0.15	0.71	-0.97	-8.45	-1.38	6.35	-8.73	-66.06
	L_{29}~U_{30}	-47.38	-119.85	1.01	1.61	7.11	-7.11	-10.43	14.50	63.93	-63.93
	U_{30}~L_{30}	-52.58	-129.17	-0.18	0.88	1.26	-7.54	-1.65	7.89	11.38	-63.37
	L_{30}~U_{31}	-277.84	-111.68	0.10	1.79	-3.68	-6.69	0.90	16.07	-33.72	-59.83
	U_{31}~L_{31}	-199.58	-243.52	1.20	1.62	-6.62	-25.58	10.79	14.56	-61.36	-230.26
	U_{32}~L_{32}	-287.74	-127.82	1.14	1.44	-17.72	-5.32	10.25	12.94	-159.56	-47.89
	L_{32}~U_{33}	-141.43	-113.94	0.74	2.16	-5.22	-4.40	6.64	19.40	-46.97	-39.62
	U_{33}~L_{33}	-59.35	-15.11	3.55	2.26	-3.07	-15.00	31.96	20.36	-27.59	-135.02
	L_{33}~U_{34}	-287.74	-127.82	1.14	1.44	-17.72	-5.32	10.25	12.94	-159.56	-47.89
	U_{34}~L_{34}	-59.35	-15.11	3.55	2.26	-3.07	-15.00	31.96	20.36	-27.59	-135.02
	L_{34}~U_{35}	-113.04	-44.48	3.60	2.67	2.02	-5.08	32.41	24.05	18.22	-45.70
	U_{35}~L_{35}	-24.63	-27.07	1.37	0.42	-12.12	-2.40	12.34	3.79	-109.07	-21.58
	L_{35}~U_{36}	-29.38	-160.66	-4.53	3.39	1.88	-2.47	-40.75	30.59	15.12	-22.27

Location	Member	Start (k-in)	End (k-in)	Start (k-ft)	End (k-ft)	Start (k-ft)	End (k-ft)	Start (k-ft)	End (k-ft)	Start (k-ft)	End (k-ft)
Structure 1	U_1~U_2	0.00	0.00	0.00	0.00	0.00	0.00	-113.37	30.38	-55.05	-12.05
	U_2~U_3	0.00	0.00	0.00	0.00	0.00	0.00	-55.18	28.38	-101.61	-19.31
	U_3~U_4	0.00	0.00	0.00	0.00	0.00	0.00	-119.32	182.71	-204.73	3.68
	U_4~U_5	0.00	0.00	0.00	0.00	0.00	0.00	24.57	181.78	-33.38	-110.32
	U_5~L_5	0.00	0.00	0.00	0.00	0.00	0.00	25.77	148.07	-225.39	19.48
	L_0~U_1	0.00	0.00	0.00	0.00	0.00	0.00	16.20	275.90	-36.54	153.07
	U_1~L_1	0.00	0.00	0.00	0.00	0.00	0.00	114.09	83.52	-18.37	64.03
	L_1~U_2	0.00	0.00	0.00	0.00	0.00	0.00	-202.95	1106.33	-61.60	684.00
	U_2~L_2	0.00	0.00	0.00	0.00	0.00	0.00	698.43	-147.97	829.50	-300.06
	L_2~U_3	0.00	0.00	0.00	0.00	0.00	0.00	88.84	72.50	80.60	-58.66
	U_3~L_3	0.00	0.00	0.00	0.00	0.00	0.00	129.95	145.52	193.02	-448.35
	L_3~U_4	0.00	0.00	0.00	0.00	0.00	0.00	87.47	155.60	19.36	-351.28
	U_4~L_4	0.00	0.00	0.00	0.00	0.00	0.00	66.14	187.32	148.51	-316.96
	L_4~U_5	0.00	0.00	0.00	0.00	0.00	0.00	-152.96	229.79	278.39	-116.92
	U_5~L_5	0.00	0.00	0.00	0.00	0.00	0.00	293.31	218.02	811.80	-1357.55
	L_5~U_6	0.00	0.00	0.00	0.00	0.00	0.00	-127.07	427.33	256.45	412.49
	U_6~L_6	0.00	0.00	0.00	0.00	0.00	0.00	339.52	187.80	636.52	-272.24
	L_6~U_7	0.00	0.00	0.00	0.00	0.00	0.00	334.42	64.69	189.02	64.58
	U_7~L_7	0.00	0.00	0.00	0.00	0.00	0.00	399.95	5.91	297.96	30.30
	L_7~U_8	0.00	0.00	0.00	0.00	0.00	0.00	344.98	112.11	230.84	11.85
	U_8~L_8	0.00	0.00	0.00	0.00	0.00	0.00	151.25	233.32	19.17	48.32
	L_8~U_9	0.00	0.00	0.00	0.00	0.00	0.00	88.09	190.35	82.37	439.70
	U_9~L_9	0.00	0.00	0.00	0.00	0.00	0.00	396.59	358.17	692.98	465.07
	L_9~U_{10}	0.00	0.00	0.00	0.00	0.00	0.00	396.59	358.17	692.98	465.07
	U_{10}~L_{10}	0.00	0.00	0.00	0.00	0.00	0.00	451.16	129.81	740.72	385.38
	L_{10}~U_{11}	0.00	0.00	0.00	0.00	0.00	0.00	349.52	147.99	619.79	765.32
	U_{11}~L_{11}	0.00	0.00	0.00	0.00	0.00	0.00	222.85	287.82	532.65	534.75
	L_{11}~U_{12}	0.00	0.00	0.00	0.00	0.00	0.00	389.27	6.10	586.45	299.67
	U_{12}~L_{12}	0.00	0.00	0.00	0.00	0.00	0.00	389.27	6.10	586.45	299.67
	L_{12}~U_{13}	0.00	0.00	0.00	0.00	0.00	0.00	109.77	157.49	393.63	12.29
	U_{13}~L_{13}	0.00	0.00	0.00	0.00	0.00	0.00	333.19	364.76	1427.21	221.96
	L_{13}~U_{14}	0.00	0.00	0.00	0.00	0.00	0.00	42.77	55.90	46.84	0.00
	U_{14}~L_{14}	0.00	0.00	0.00	0.00	0.00	0.00	147.17	365.93	0.00	0.00
	L_{14}~U_{15}	0.00	0.00	0.00	0.00	0.00	0.00	31.91	31.91	202.92	202.92
	U_{15}~L_{15}	0.00	0.00	0.00	0.00	0.00	0.00	14.27	43.74	-14.06	-58.00
	L_{15}~U_{16}	0.00	0.00	0.00	0.00	0.00	0.00	24.00	24.00	-58.00	-58.00
	U_{16}~L_{16}	0.00	0.00	0.00	0.00	0.00	0.00	24.86	43.28	45.12	-116.22
	L_{16}~U_{17}	0.00	0.00	0.00	0.00	0.00	0.00	34.37	42.89	15.66	-74.04
	U_{17}~L_{17}	0.00	0.00	0.00	0.00	0.00	0.00	15.48	1.75	-44.25	-86.46
	L_{17}~U_{18}	0.00	0.00	0.00	0.00	0.00	0.00	30.19	35.42	-79.91	-206.21
	U_{18}~L_{18}	0.00	0.00	0.00	0.00	0.00	0.00	35.22	39.13	-26.01	-75.54
	L_{18}~U_{19}	0.00	0.00	0.00	0.00	0.00	0.00	-9.19	-36.95	-643.35	-261.11
	U_{19}~L_{19}	0.00	0.00	0.00	0.00	0.00	0.00	-21.55	-21.55	-77.41	-77.41
	L_{19}~U_{20}	0.00	0.00	0.00	0.00	0.00	0.00	35.52	177.23	-282.83	-33.21
	U_{20}~L_{20}	0.00	0.00	0.00	0.00	0.00	0.00	69.35	217.55	-102.14	104.99
	L_{20}~U_{21}	0.00	0.00	0.00	0.00	0.00	0.00	-122.00	38.07	-7.53	-7.53
	U_{21}~L_{21}	0.00	0.00	0.00	0.00	0.00	0.00	-100.75	453.00	-3.56	272.79
	L_{21}~U_{22}	0.00	0.00	0.00	0.00	0.00	0.00	76.01	76.01	0.00	0.00
	U_{22}~L_{22}	0.00	0.00	0.00	0.00	0.00	0.00	-330.78	2327.00	-199.26	1304.83
	L_{22}~U_{23}	0.00	0.00	0.00	0.00	0.00	0.00	1615.07	-191.44	1941.66	-500.55
	U_{23}~L_{23}	0.00	0.00	0.00	0.00	0.00	0.00	84.76	-84.76	0.00	0.00
	L_{23}~U_{24}	0.00	0.00	0.00	0.00	0.00	0.00	205.05	-137.10	1.34	-323.24
	U_{24}~L_{24}	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{24}~U_{25}	0.00	0.00	0.00	0.00	0.00	0.00	68.66	178.68	5.94	488.40
	U_{25}~L_{25}	0.00	0.00	0.00	0.00	0.00	0.00	2.16	295.72	3.60	496.00
	L_{25}~U_{26}	0.00	0.00	0.00	0.00	0.00	0.00	40.68	39.70	-80.34	-247.23
	U_{26}~L_{26}	0.00	0.00	0.00	0.00	0.00	0.00	43.01	40.46	-245.38	-85.18
	L_{26}~U_{27}	0.00	0.00	0.00	0.00	0.00	0.00	-60.82	-60.82	-228.30	-228.30
	U_{27}~L_{27}	0.00	0.00	0.00	0.00	0.00	0.00	31.67	8.62	-241.25	-68.86
	L_{27}~U_{28}	0.00	0.00	0.00	0.00	0.00	0.00	-437.00	-437.00	-644.79	-212.06
	U_{28}~L_{28}	0.00	0.00	0.00	0.00	0.00	0.00	-82.95	17.51	-75.60	-9.76
	L_{28}~U_{29}	0.00	0.00	0.00	0.00	0.00	0.00	63.93	59.11	-39.06	-22.68
	U_{29}~L_{29}	0.00	0.00	0.00	0.00	0.00	0.00	-82.00	41.29	16.41	-10.56
	L_{29}~U_{30}	0.00	0.00	0.00	0.00	0.00	0.00	-1.38	6.35	-8.73	-66.06
	U_{30}~L_{30}	0.00	0.00	0.00	0.00	0.00	0.00	-10.43	14.50	63.93	-63.93
	L_{30}~U_{31}	0.00	0.00	0.00	0.00	0.00	0.00	-1.65	7.89	11.38	-63.37
	U_{31}~L_{31}	0.00	0.00	0.00	0.00	0.00	0.00	0.90	16.07	-33.72	-59.83
	U_{32}~L_{32}	0.00	0.00	0.00	0.00	0.00	0.00	10.79	14.56	-61.36	-230.26
	L_{32}~U_{33}	0.00	0.00	0.00	0.00	0.00	0.00	6.64	19.40	-46.97	-39.62
	U_{33}~L_{33}	0.00	0.00	0.00	0.00	0.00	0.00	31.96	20.36	-27.59	-135.02
	L_{33}~U_{34}	0.00	0.00	0.00	0.00	0.00	0.00	10.25	12.94	-159.56	-47.89
	U_{34}~L_{34}	0.00	0.00	0.00	0.00	0.00	0.00	31.96	20.36	-27.59	-135.02
	U_{35}~L_{35}	0.00	0.00	0.00	0.00	0.00	0.00	32.41	24.05	18.22	-45.70
	L_{35}~U_{36}	0.00	0.00	0.00	0.00	0.00	0.00	12.34	3.79	-109.07	-21.58
	U_{36}~L_{36}	0.00	0.00	0.00	0.00	0.00	0.00	-40.75	30.59	15.12	-22.27

ZZ Axis Moment Properties

Location	Member	Max. Mom. Start (k-in)	Max. Mom. End (k-in)	S_{top} (in^3)	S_b (in^3)	S_{bc} (in^3)	Z_z (in^3)	I_{zz} (in^4)	Shape Factor f	M_p (k-in)	Formula 1.8 Term / F_y/S_{bc}	M_y k-in	Equivalent Mom. Factor a	$C_{m(x)}$	$C_{m(y)}$
Structure 1	U_1~U_2	-113.37	30.38	-55.05	-12.05	90.2	90.24	72.24	1.27	4206	0.99880042	2974.3	-0.268	0.49	0.49
	U_2~U_3	-55.18	28.38	-101.61	-19.31	90.2	90.24	72.24	1.27	4206	0.99880042	2974.3	-0.268	0.49	0.49
	U_3~U_4	-119.32	182.71	-204.73	3.68	90.2	90.24	76.71	1.27	4206	0.99880042	2974.3	-0.018	0.59	0.59
	U_4~U_5	24.57	181.78	-33.38	-110.32	90.2	90.24	72.24	1.27	4206	0.99880042	2974.3	-0.086	0.52	0.52
	U_5~L_5	25.77	148.07	-225.39	19.48	90.2	90.24	72.24	1.27	4206	0.99880042	2974.3	-0.086	0.57	0.57
	L_0~U_1	16.20	275.90	-36.54	153.07	90.2	90.24	76.71	1.27	4206	0.99880042	2974.3	0.059	0.62	0.62
	U_1~L_1	114.09	83.52	-18.37	64.03	78.18	142.56	2586	1.82	4704	0.99890136	3201.5	0.484	0.62	0.62
	L_1~U_2	-202.95	1106.33	-61.60	684.00	138.2	138.17	111.77	1.99***	3642	2197.7	1.45	6999	0.998945	4564.8
	U_2~L_2	698.43	-147.97	829.50	-300.06	138.2	138.17	111.77	1.99***	3642	2197.7	1.45	6999	0.998945	4564.8
	L_2~U_3	88.84	72.50	80.60	-58.66	96.6	96.61	79.12	1.99***	4465	0.99873196	3184.1	0.816	0.93	0.93
	U_3~L_3	129.95	145.52	193.02	-448.35	96.6	96.61	79.12	1.99***	4465	0.99873196	3184.1	0.816	0.93	0.93
	L_3~U_4	87.47	155.60	19.36	-351.28	128.7	128.69	105.26	182.66	3153	1864.4	1.42	6028	0.99875895	4241.5
	U_4~L_4	66.14	187.32	148.51	-316.96	151.8	151.76	130.54	219.77	4535	2632.6	1.45	7252	0.99905092	5033.4
	L_4~U_5	-152.96	229.79	278.39	-116.92	151.8	151.76	130.54	219.77	4535	2632.6	1.45	7252	0.99905092	5033.4
	U_5~L_5	293.31	218.02	811.80	-1357.55	188.5	188.51	197.55	274.68	5476	3413.6	1.46	9064	0.99899964	6214.6
	L_5~U_6	-127.07	427.33	256.45	412.49	188.5	188.51	164.41	274.68	5476	3413.6	1.46	9064	0.99899964	6214.6
	U_6~L_6	339.52	187.80	636.52	-272.24	188.5	188.51	197.55	274.68	5476	3413.6	1.46	9064	0.99899964	6214.6
	L_6~U_7	334.42	64.69	189.02	64.58	127.3	127.32	110.40	189.23	3668	2309.5	1.44	6146	0.99907149	4197.7
	U_7~L_7	399.95	5.91	297.96	30.30	104.8	104.75	86.43	150.63	2589	1554.3	1.44	4971	0.99880452	3452.6
	L_7~U_8	344.98	112.11	230.84	11.85	104.8	104.75	86.43	150.63	2589	1554.3	1.44	4971	0.99880452	3452.6
	U_8~L_8	151.25	233.32	19.17	48.32	104.8	104.75	86.43	150.63	2589	1554.3	1.44	4971	0.99880452	3452.6
	L_8~U_9	88.09	190.35	82.37	439.70	138.2	138.15	119.05	199.70	3434	1990.9	1.45	6599	0.99894563	4553.8
	U_9~L_9	396.59	358.17	692.98	465.07	232.7	232.70	198.86	340.10	6520	3217.6	1.46	11223	0.99885838	7670.6
	L_9~U_{10}	396.59	358.17	692.98	465.07	232.7	232.70	198.86	340.10	6520	3217.6	1.46	11223	0.99885838	7670.6
	U_{10}~L_{10}	451.16	129.81	740.72	385.38	254.1	251.73	219.41	365.62	7161	3870.6	1.45	12650	0.99881931	8298.1
	L_{10}~U_{11}	349.52	147.99	619.79	765.32	232.7	232.70	189.45	340.10	6520	3217.6	1.46	11223	0.99885838	7670.6
	U_{11}~L_{11}	222.85	287.82	532.65	534.75	232.7	232.70	189.45	340.10	6520	3217.6	1.46	11223	0.99885838	7670.6
	L_{11}~U_{12}	389.27	6.10	586.45	299.67	198.9	198.88	169.65	285.08	5137	2713.1	1.43	9408	0.99885601	6355.5
	U_{12}~L_{12}	389.27	6.10	586.45	299.67	198.9	198.88	169.65	285.08	5137	2713.1	1.43	9408	0.99885601	6355.5
	L_{12}~U_{13}	109.77	157.49	393.63	12.29	198.9	198.88

Moment (End) - AI2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.80

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
See Figure 6.6.2.1-4 for Gusset Plate Geometry, Bridge Survey Report, Article 3.22.1

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)	Max Pos. Mom. Start (k-in)	Max Pos. Mom. End (k-in)	S_{top} (in^3)	S_{bot} (in^3)	Z_z (in^3)	I_z (in^4)	$I_{z/c}$ (in^3)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F$_y$/S$_{top}$	M_z (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor C_{mx}	Equivalent Mom. Factor $C_{mx/b}$
Structure 1	L_0-L_1	-15.50	-73.38	0.00	0.58	2.73	-3.45					-37.74	-76.36	33.12	-162.74	83.6	83.58	74.65	100.97	2577	1026.3	1.21	3332	0.99500394	2755.4	-0.204	0.52	0.52
	L_1-L_2	39.75	-88.06	-0.17	2.24	-0.99	-6.32					-48.42	-70.99	32.35	-237.62	83.6	83.58	67.49	100.97	2577	1026.3	1.21	3332	0.99500394	2755.4	-0.136	0.55	0.55
	L_2-L_3	70.30	-42.24	-0.26	3.40	-3.18	-5.52					-76.12	-8.14	-164.63	-162.74	99.5	99.50	91.00	126.43	5492	2188.0	1.21	4141	0.99981186	3294.8	0.397	0.76	0.76
	L_3-L_4	-11.39	11.52	1.25	3.99	-3.77	+2.18					11.27	35.90	-33.94	-109.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_4-L_5	-49.18	208.14	-10.35	6.10	-4.39	-0.61					-265.82	-87.04	-239.61	-40.59	52.6	52.59	76.68	114.47	3186	1268.7	1.21	3332	0.99500394	3052.4	-0.680	0.33	0.33
	L_5-L_6	-0.43	187.22	-1.13	7.34	-4.61	-0.61					-10.14	66.03	-40.09	-5.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_6-L_7	41.36	78.74	6.07	2.65	2.91	-2.14					44.81	31.21	-18.69	-19.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_7-L_8	-25.09	448.92	-1.35	19.36	0.00	0.00					-12.16	174.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_8-L_9	426.08	-36.00	4.52	0.61	9.90	-1.47					40.67	5.50	89.09	-13.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_9-L_{10}	100.12	-126.55	-0.73	2.35	2.79	-4.33					91.00	11.79	249.58	-24.89	144.9	144.85	129.09	192.84	5010	2376.8	1.33	6364	0.99981186	4218.1	-0.097	0.59	0.59
	L_{10}-L_{11}	120.53	-116.03	3.19	1.49	0.98	-4.52					28.75	13.44	8.82	-40.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{11}-L_{12}	39.16	-198.23	1.27	3.17	0.69	-5.04					18.62	13.15	8.19	-54.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{12}-L_{13}	-45.20	-121.29	7.58	0.94	-2.79	-3.63					17.69	8.42	-25.07	-32.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{13}-L_{14}	96.42	-200.16	1.60	1.07	1.54	-17.48					14.40	9.60	13.90	-157.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{14}-L_{15}	35.52	-7.44	3.80	0.61	1.47	-14.56					-427.99	-92.95	-53.23	-5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{15}-L_{16}	-192.00	-318.69	0.71	0.26	-7.75	-8.24					6.38	2.36	-89.79	-74.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{16}-L_{17}	39.89	44.80	-8.16	0.49	-3.49	-0.61					-80.55	1.62	-40.37	-5.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{17}-L_{18}	-154.69	-31.48	-4.65	1.62	6.27	-0.24					-40.06	14.80	2.47	-2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{18}-L_{19}	-216.17	148.84	-2.44	3.45	0.40	-2.22					-48.99	18.40	-1.89	-1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{19}-L_{20}	-136.64	-69.93	5.86	3.66	0.34	-0.19					-52.77	32.00	3.05	-1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{20}-L_{21}	2.99	-170.85	-0.77	1.52	3.52	-7.93					-6.97	13.64	31.71	-21.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{21}-L_{22}	16.92	-245.54	1.96	2.32	0.24	-9.04					-7.75	18.49	20.05	-91.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{22}-L_{23}	-6.26	-160.81	-0.23	-1.66	-0.85	-7.55					-2.07	-14.91	-7.42	-87.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{23}-L_{24}	-3.84	-244.44	0.08	-0.63	0.00	0.00					-3.98	-3.84	-14.76	-76.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{24}-L_{25}	-253.00	-295.08	1.50	2.75	-8.74	-11.10					13.53	24.72	-78.69	-99.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{25}-L_{26}	-0.81	11.20	0.00	0.00	0.00	0.00					-11.02	-1.82	-87.06	-118.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{26}-L_{27}	-475.14	-252.78	4.28	4.39	-10.79	-19.13					38.53	39.47	-97.13	-172.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{27}-L_{28}	-280.52	-64.48	3.57	6.30	-17.36	-5.98					32.09	56.68	-156.25	-53.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{28}-L_{29}	-292.37	219.77	4.14	3.49	-17.36	-4.89					37.23	35.70	-85.43	-43.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{29}-L_{30}	-225.89	141.33	2.93	6.40	-11.84	-0.20					26.33	57.60	-106.52	-1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{30}-L_{31}	-201.56	256.05	4.99	3.05	-16.81	0.49					44.87	21.52	-62.05	-36.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{31}-L_{32}	-160.00	387.18	-8.33	13.68	0.00	0.00					-74.88	123.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{32}-L_{33}	-202.72	204.41	-2.82	2.30	-4.02	-11.48					-25.29	20.70	-36.16	-103.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{33}-L_{34}	-375.75	1103.15	-14.38	-2.27	-2.39	-7.79					-43.53	25.11	-25.72	-38.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{34}-L_{35}	1072.48	-412.36	0.00	0.00	37.19	-14.91					0.00	0.00	334.67	-134.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{35}-L_{36}	539.48	-413.93	-4.36	0.00	-16.26	0.00					-515.95	-30.30	-23.77	-49.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{36}-L_{37}	470.61	-49.01	4.70	2.79	4.72	-5.49					42.29	25.10	42.64	-49.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{37}-L_{38}	229.12	30.83	2.76	4.12	2.76	-4.12					14.14	10.58	66.66	-33.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{38}-L_{39}	226.53	-41.80	4.76	3.32	1.64	-6.16					42.84	29.84	14.76	-76.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{39}-L_{40}	214.46	-56.44	2.58	4.63	-1.01	-7.68					23.22	41.67	-9.09	-69.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{40}-L_{41}	201.56	256.05	4.99	3.05	-16.81	0.49					44.87	21.52	-62.05	-36.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{41}-L_{42}	49.26	-202.49	3.06	5.00	-4.19	-21.90					27.54	44.99	-37.67	-197.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{42}-L_{43}	-197.13	24.93	-4.37	1.62	6.27	-0.24					-40.06	14.80	2.47	-2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{43}-L_{44}	-111.93	0.87	3.43	4.41	-9.68	-5.88					30.86	39.72	-81.68	-52.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{44}-L_{45}	-75.76	4.62	2.58	4.62	-3.01	-7.68					23.22	41.67	-9.09	-69.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{45}-L_{46}	-60.79	179.83	3.18	4.49	0.00	0.00					28.66	40.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{46}-L_{47}	-81.88	265.66	-8.20	6.99	0.00	0.00					-73.83	92.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{47}-L_{48}	29.74	411.52	4.39	0.00	17.19	0.00					54.58	0.00	172.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{48}-L_{49}	-100.08	-279.84	-0.36	1.91	-1.52	-11.23					-3.20	-17.21	-17.31	-101.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{49}-L_{50}	372.05	1055.64	-14.38	-2.27	-2.39	-7.79					-43.53	25.11	-25.72	-38.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{50}-L_{51}	1027.57	362.88	0.00	0.00	38.23	-15.06					0.00	0.00	344.08	-135.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{51}-L_{52}	-227.20	-125.85	-2.59	5.47	-2.21	-8.98					-23.32	49.23	-19.87	-80.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{52}-L_{53}	68.89	-118.31	3.76	2.23	1.76	-9.29					23.27	47.06	35.19	-85.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{53}-L_{54}	278.16	-133.13	2.59	5.23	1.76	-9.29					23.27	47.06	35.19	-85.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{54}-L_{55}	222.98	-243.33	3.71	4.12	-2.52	-8.75					33.38	37.10	-22.72	-79.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{55}-L_{56}	68.89	-118.31	3.76	2.23	1.76	-9.29					23.27	47.06	35.19	-85.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{56}-L_{57}	-167.99	-470.98	4.69	3.35	-16.69	-14.06					41.97	30.19	-149.36	-126.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{57}-L_{58}	-445.18	-83.02	3.91	-14.89	-14.93						34.68	8.23	-134.00	-134.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{58}-L_{59}	-291.76	319.65	3.91	-14.89	-14.93						21.18	8.23	-61.20	-38.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{59}-L_{60}	-392.42	38.25	0.00	0.00	-5.36	-2.58					0.00	0.00	48.25	-23.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{60}-L_{61}	-297.29	199.08	-6.54	1.58	1.47	-6.61					-58.90	14.25	13.24	-5.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{61}-L_{62}	27.12	-298.67	1.96	2.32	0.24	-9.04					-7.75	18.49	20.05	-91.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Structure 2	L_0-L_1	24.89	-109.69	0.32	0.50	3.53	-5.64					29.91	-32.82	100.89	-252.45	83.6	83.58	67.49	100.97	2740	1098.2	1.21	3332	0.99500394	2755.4	-0.400	0.44	0.44
	L_1-L_2	139.96	-178.06	-0.32	0.71	2.23	-6.10					-2.91	6.35	20.08	-54.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_2-L_3	-11.70	-139.01	0.00	0.00	0.00	0.00					170.45	-217.71	235.26	-355.48	83.6	83.58	74.65	100.97	2740	1098.2	1.21	3332	0.99500394	2755.4	-0.628	0.35	0.35
	L_3-L_4	47.96	-293.92	-2.24	0.98	-0.50	-8.15					-2.18	8.80	-6.46	-73.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_4-L_5	-41.79	-343.26	0.26	1.80	-2.90	-19.74					2.31	16.16	-26.07	-177.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_5-L_6	-341.10	86.25	-13.34	3.48	-13.45	-1.62					-119.14	31.26	-121.07	-14.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_6-L_7	-201.18	152.50	-6.17	3.96	0.00	0.00					-55.33	35.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_7-L_8	-201.76	319.65	3.91	-14.89	-14.93						21.18	8.23	-61.20	-38.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Structure 3	L_0-L_1	-147.72	149.48	-3.95	3.03	1.57	-1.98					-35.52	27.28	-14.13	-17.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_1-L_2	-11.70	-139.01	0.00	0.00	0.00	0.00					-17.24	-171.78	-177.88	-144.66	83.6	83.58	74.65	100.97	2577	1026.3	1.21	3332	0.99500394	2755.4	-0.628	0.35	0.35
	L_2-L_3	428.40	-26.47	0.09	6.48	18.41	-1.42					54.83	4.28	165.67	-12.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_3-L_4	70.64	-27.55	0.66	3.08	1.62	-4.92					-9.98	27.72	14.59	-40.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_4-L_5	194.51	-25.06	3.48	3.00	2.43	-12.50					31.30	27.01	-21.86	-112.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_5-L_6	70.64	-27.55	0.66	3.08	1.62	-4.92					-9.98	27.72	14.59	-40.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_6-L_7	-74.43	-5.53	-3.64	3.27	0.78	-0.68					-32.74	29.39	7.04	-100.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

M_y Information

YY Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Max) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)	Max Neg. Mom. Start (k-in)	Max Neg. Mom. End (k-in)	S_{top} (in^3)	S_{bot} (in^3)	Z_y (in^3)	$I_{y/c}$ (in^4)	$I_{y/c}$ (in^3)	Shape Factor	M_p (k-in)	P_{crit} (kip)	Formula 1.8 Term * F$_y$/S$_{top}$	M_y (k-in)	Equivalent Mom. Factor a	Equivalent Mom. Factor C_{mx}	Equivalent Mom. Factor $C_{mx/b}$
Structure 1	L_0-L_1	-0.53	-14.79	0.14	0.52	-1.15	-4.22					1.27	4.67	-10.32	-37.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_1-L_2	6.64	-3.52	-47.98	18.99	0.00	0.00	0.00	0.00	0.00	0.00	6.64	-3.52	-47.98	18.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_2-L_3	17.56	3.85	-0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.56	3.85	-0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_3-L_4	-45.12	56.05	0.52	-0.95	-0.80	0.20					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_4-L_5	2.16	6.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.16	6.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_5-L_6	4.39	-1.13	31.51	0.52	0.00	0.00	0.00	0.00	0.00	0.00	4.39	-1.13	31.51	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_6-L_7	2.52	-0.42	-2.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.52	-0.42	-2.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_7-L_8	89.66	-32.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	89.66	-32.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_8-L_9	57.09	56.55	41.29	71.97	355.4	355.44	352.52	403.40	1093.1	1.13	13312	0997.1	11896.3	0.596	0.84	0.84	—	—	—	—	—	—	—	—	—	—
	L_9-L_{10}	0.32	11.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	11.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{10}-L_{11}	59.15	18.23	43.90	-20.10	158.2	158.16	151.51	173.24	694.3	1.10	5717	0997983	5208.8	0.308	0.72	0.72	—	—	—	—	—	—	—	—	—	—
	L_{11}-L_{12}	1.54	-5.43	-16.16	12.48	0.00	0.00	0.00	0.00	0.00	0.00	1.54	-5.43	-16.16	12.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{12}-L_{13}	-29.08	-46.27	0.70	-0.63	-1.80	1.39					-29.08	-46.27	0.70	-0.63	-1.80	1.39										
	L_{13}-L_{14}	-1.84	-2.70	0.54	-17.82	0.00	0.00	0.00	0.00	0.00	0.00	-1.84	-2.70	0.54	-17.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{14}-L_{15}	0.72	-4.77	-19.07	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.72	-4.77	-19.07	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	L_{15}-L_{16}	-0.42	-2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.42	-2.33

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.60

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_2 Information | M_1 Information

ZZ Axis Moments from STAAD | ZZ Max. Neg. Mom. | ZZ Axis Moment Properties | YY Axis Moments from STAAD | YY Max. Neg. Mom. | Tension | Compression

| Location | | Member | Dead Load Start (k-ft) | Dead Load End (k-ft) | Live Load (Max) Start (k-ft) | Live Load (Max) End (k-ft) | Pedestrian Load (Max) Start (k-ft) | Pedestrian Load (Min) End (k-ft) | Lane Reduction & Impact Live Load Start (k-ft) | Lane Reduction & Impact Live Load End (k-ft) | Impact Pedestrian Load Max Start (k-ft) | Impact Pedestrian Load Max End (k-ft) | Start (k-ft) | End (k-ft) | S_{top} (in^3) | S_{bot} (in^3) | Z_z (in^3) | I_z (in^4) | $I_{z/c}$ (in^4) | Shape Factor f | M_p (k-in) | Formula 1.8 Term * F$_y$/S$_{top}$ | M_y (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor $C_{m/c}$ | Dead Load Start (k-ft) | Dead Load End (k-ft) | Live Load (Max) Start (k-ft) | Live Load (Max) End (k-ft) | Pedestrian Load (Max) Start (k-ft) | Pedestrian Load (Min) End (k-ft) | Lane Reduction & Impact Live Load Start (k-ft) | Lane Reduction & Impact Live Load End (k-ft) | Impact Pedestrian Load Max Start (k-ft) | Impact Pedestrian Load Max End (k-ft) | Start (k-ft) | End (k-ft) | S_{top} (in^3) | S_{bot} (in^3) | Z_y (in^3) | $I_{y/t}$ (in^4) | $I_{y/c}$ (in^4) | Shape Factor f | M_p (k-in) | Formula 1.8 Term * F$_y$/S$_{top}$ | M_y (k-in) | Equivalent Mom. Factor a | Equivalent Mom. Factor $C_{m/c}$ | Yield Axial Factor | Yield Moment Factor | Yield Total | Pass | Fracture Axial Factor | Fracture Moment Factor | Fracture Total | Pass | Buckle Axial Factor | Buckle Moment Factor | Buckle Total | Pass | Yield Axial Factor | Yield Moment Factor | Yield Total | Pass |
|---|---|---|---

Moment (End) - AI2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans

Loading:	HS20 Lane
Condition:	As Inspected

Vehicle Load Factors: DL Factor: 1.30, LL Factor: 2.17
Pedestrian Load Factors: DL Factor: 1.30, LL Factor: 1.80

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information — M_y Information

| Location | | Member | ZZ Axis Moments from STAAD: Dead Load Start (k-in) | End (k-in) | Live Load (Max) Start (k-in) | End (k-in) | Live Load (Min) Start (k-in) | End (k-in) | Pedestrian Load (Max) Start (k-in) | End (k-in) | Pedestrian Load (Min) Start (k-in) | End (k-in) | Lane Reduction & Impact Live Load Start (k-in) | End (k-in) | Lane Reduction & Impact Live Load End (k-in) | Impact Pedestrian Load Max Start (k-in) | End (k-in) | Impact Pedestrian Load Min Start (k-in) | End (k-in) | Max. Pos. Mom. Start k-in | End k-in | Max. Neg. Mom. Start k-in | End k-in | S_{top} (in^3) | S_{bot} (in^3) | Z_z (in^3) | I_z (in^4) | $I_{t/n}$ (in^4) | Shape Factor | M_p (k-in) | Formula 1.8 Term * F_y/S_top | M_z (k-in) | Equivalent Mom. Factor a | $C_{m/n}$ | $C_{b/n}$ | YY Axis Moments from STAAD: Dead Load Start (k-in) | End (k-in) | Live Load (Max) Start (k-in) | End (k-in) | Live Load (Min) Start (k-in) | End (k-in) | Pedestrian Load (Max) Start (k-in) | End (k-in) | Pedestrian Load (Min) Start (k-in) | End (k-in) | Lane Reduction & Impact Live Load Max Start (k-in) | End (k-in) | Lane Reduction & Impact Live Load Min Start (k-in) | End (k-in) | Impact Pedestrian Load Max Start (k-in) | End (k-in) | Impact Pedestrian Load Min Start (k-in) | End (k-in) | Max. Neg. Mom. Start k-in | End k-in | Max. Pos. Mom. Start k-in | End k-in | S_{top} (in^3) | S_{bot} (in^3) | Z_y (in^3) | $I_{y/n}$ (in^4) | Shape Factor | M_p (k-in) | $P_{n/n}$ (kips) | Formula 1.8 Term * F_y/S_top | M_y (k-in) | Equivalent Mom. Factor a | $C_{m/n}$ | $C_{b/n}$ | Axial Force (kips) | Moment (k-in) | Pass | Axial Force (kips) | Moment (k-in) | Pass | Axial Force (kips) | Moment (k-in) | Pass | Axial Force (kips) | Moment (k-in) | Pass |
|---|---|---

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max, Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Max) Start (k-in)	Pedestrian Load (Min) Start (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Max Start (k-in)	Impact Pedestrian Load Max End (k-in)
Structure 1	U_1-U_2	88.99	-88.04	-2.28	2.06	4.96	-5.18	0.65	0.45	2.38	-2.03
	U_2-U_3	54.53	-54.53	-43.94	0.61	-2.66	-2.78	6.68	6.13	0.51	-1.04
	U_3-U_4	-130.85	58.79	1.34	3.66	-5.50	-3.02	2.20	0.80	-1.36	14.52
	U_4-U_5	-80.24	76.71	2.29	3.45	-3.24	-3.42	0.72	-1.13	-1.04	21.26
	U_5-U_6	-26.00	75.03	2.65	3.48	-4.47	-1.92	0.47	0.77	-1.36	-0.71
	U_6-U_7	19.49	179.90	0.81	3.80	-0.80	-0.32	-0.65	0.89	0.00	0.00
	U_7-U_8	131.06	62.51	0.00	0.00	0.00	0.00	0.41	0.80	0.00	0.00
	U_8-U_9	-71.27	657.90	2.09	10.86	1.69	-1.46	-1.34	3.99	0.00	0.00
	U_9-U_{10}	624.45	-195.13	2.23	0.50	4.54	-5.38	1.79	0.13	2.39	-1.65
	U_{10}-U_{11}	71.48	-13.72	3.94	1.85	1.21	-4.17	0.28	0.49	0.23	-0.97
	U_{11}-U_{12}	9.72	222.34	1.92	1.66	0.87	-2.71	0.49	0.39	0.26	-1.01
	U_{12}-U_{13}	35.40	227.05	1.89	1.45	-1.26	-10.47	0.56	0.33	2.90	-2.92
	U_{13}-U_{14}	-120.52	-238.11	1.66	0.65	-5.76	-4.89	0.44	0.14	-0.62	-1.62
	U_{14}-U_{15}	-201.52	-422.66	1.10	0.30	-5.32	-4.07	0.20	0.00	-1.36	-2.61
	U_{15}-U_{16}	-380.34	-263.67	1.50	0.86	-5.33	-5.41	0.32	0.20	-2.38	-1.60
	U_{16}-U_{17}	-227.22	-366.81	1.51	0.69	-5.37	-4.27	0.00	0.00	-1.48	-2.08
	U_{17}-U_{18}	-353.09	-172.61	0.94	0.38	-6.14	-2.40	0.00	0.00	-1.59	-0.77
	U_{18}-U_{19}	-227.07	-24.53	0.41	0.48	-2.30	-1.49	0.02	0.10	-0.58	-0.81
	U_{19}-U_{20}	-214.18	21.72	4.94	0.18	1.72	-1.30	-1.43	0.35	0.09	-0.06
	U_{20}-U_{21}	-229.66	4.07	2.64	2.94	-3.03	-1.80	0.00	0.00	-1.28	0.00
	U_{21}-U_{22}	419.98	-379.23	2.34	0.77	-2.96	-3.78	0.32	0.00	-1.70	-2.46
	U_{22}-U_{23}	-113.09	-299.12	-0.04	1.49	-1.30	-7.25	0.00	0.18	-0.50	-1.31
	U_{23}-U_{24}	-276.39	-437.77	0.25	0.27	-4.71	-6.26	0.00	0.00	-1.75	-2.29
	U_{24}-U_{25}	-433.77	-494.94	0.85	2.61	-6.04	-11.73	0.08	0.31	-1.29	-2.04
	U_{25}-U_{26}	-485.42	-542.61	1.22	3.63	-6.89	-12.74	0.00	0.00	-1.34	-1.93
	U_{26}-U_{27}	-543.33	-230.04	2.97	0.48	-10.30	-9.99	0.37	0.87	2.15	-1.73
	U_{27}-U_{28}	-414.64	-309.81	4.88	4.10	-10.86	-16.87	0.64	0.58	1.77	-2.26
	U_{28}-U_{29}	-388.32	-328.61	4.50	4.10	-10.06	-16.87	0.64	0.58	1.77	-2.26
	U_{29}-U_{30}	-443.98	-59.22	4.39	5.52	-11.02	-4.06	0.49	0.82	2.01	-0.82
	U_{30}-U_{31}	-319.32	220.06	3.05	3.05	-7.72	-0.61	0.00	0.00	-1.28	0.00
	U_{31}-U_{32}	-166.00	101.73	5.80	4.97	-4.63	-2.25	0.77	0.79	1.44	-0.29
	U_{32}-U_{33}	-149.75	284.71	2.39	5.92	-3.44	-1.33	-0.68	1.10	0.00	0.00
	U_{33}-U_{34}	-290.99	80.05	6.04	4.29	-8.29	-2.29	0.00	0.00	-1.28	0.00
	U_{34}-U_{35}	-290.99	1663.47	3.88	23.40	3.37	-4.70	-1.34	5.47	0.00	0.00
	U_{35}-U_{36}	1538.20	1538.20	3.53	3.53	-3.79	-3.79	1.34	1.34	0.00	0.00
	U_{36}-U_{37}	-27.64	20.42	0.75	3.51	0.90	-6.08	0.13	0.62	-0.37	-0.96
	U_{37}-U_{38}	301.84	301.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{38}-U_{39}	186.19	-237.97	2.26	6.41	1.40	-7.83	0.46	0.70	0.18	-1.19
	U_{39}-U_{40}	179.26	-73.23	3.28	4.15	-0.36	-6.56	0.59	0.66	0.03	-1.32
	U_{40}-U_{41}	29.27	-139.61	3.21	3.21	0.29	-5.29	0.58	0.58	0.05	-1.06
	U_{41}-U_{42}	-76.59	-111.03	3.67	3.22	-0.51	-5.29	0.57	0.45	0.79	-1.03
	U_{42}-U_{43}	-158.20	-180.34	3.67	3.22	-0.51	-5.29	0.57	0.45	0.79	-1.03
	U_{43}-U_{44}	-164.13	-164.69	4.49	3.46	-0.87	-6.42	0.68	0.50	1.67	-1.21
	U_{44}-U_{45}	-137.31	-137.31	4.49	3.79	-0.87	-6.42	0.68	0.50	1.67	-1.21
	U_{45}-U_{46}	-44.00	54.78	3.78	3.06	-4.90	-2.43	0.49	0.43	0.96	-0.48
	U_{46}-U_{47}	-69.00	212.40	-3.22	4.71	-2.65	-2.21	0.76	1.00	0.00	0.00
	U_{47}-U_{48}	-91.11	-220.26	-3.22	4.71	-2.65	-2.21	0.76	1.00	0.00	0.00
	U_{48}-U_{49}	-40.57	345.28	-2.66	6.70	-1.65	-0.85	-0.61	1.30	0.00	0.00
	U_{49}-U_{50}	-40.57	345.28	-2.66	6.70	-1.65	-0.85	-0.61	1.30	0.00	0.00
	U_{50}-U_{51}	-146.81	1530.36	-2.83	23.50	4.00	-5.98	-0.97	5.60	0.00	0.00
	U_{51}-U_{52}	1613.34	-340.01	5.93	2.80	24.08	-9.13	1.89	0.69	-1.90	64.05
	U_{52}-U_{53}	84.20	-327.18	5.03	4.24	-3.24	-10.80	0.74	0.58	-1.98	54.36
	U_{53}-U_{54}	253.20	-149.43	3.37	4.35	-1.21	-7.50	0.52	0.39	0.38	-1.49
	U_{54}-U_{55}	358.50	-362.03	4.04	5.63	-6.91	-18.16	0.64	0.55	1.52	-2.40
	U_{55}-U_{56}	-300.96	-456.91	4.43	3.95	-17.96	-10.67	0.69	0.52	-2.31	-1.72
	U_{56}-U_{57}	-158.20	-180.34	3.67	3.22	-0.51	-5.29	0.57	0.45	0.79	-1.03
	U_{57}-U_{58}	-669.38	-449.72	2.27	1.31	-12.38	-6.31	0.00	0.00	-2.06	-1.25
	U_{58}-U_{59}	-1.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{59}-U_{60}	407.37	-91.16	-8.35	0.53	4.91	-0.96	-1.89	0.04	1.61	-0.19
	U_{60}-U_{61}	1538.20	1538.20	3.53	3.53	-3.79	-3.79	1.34	1.34	0.00	0.00
	U_{61}-U_{62}	-290.40	-122.26	7.08	0.99	-2.50	-2.40	-1.64	0.67	0.20	-0.31
	U_{62}-U_{63}	471.42	-311.55	-1.16	0.64	7.69	-6.13	0.25	0.07	3.50	-2.01
	U_{63}-U_{64}	-54.47	-205.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{64}-U_{65}	-21.98	-218.88	0.37	0.70	0.53	-4.66	0.12	0.10	0.40	-1.52
	U_{65}-U_{66}	-361.39	-187.99	0.51	1.63	-9.83	-3.70	-0.02	0.37	1.24	-1.70
	U_{66}-U_{67}	-252.02	-374.51	1.12	1.34	-7.49	-8.64	0.20	0.27	2.34	-3.26
	U_{67}-U_{68}	-444.47	-187.92	1.31	1.35	-13.15	-4.35	0.12	0.24	-3.85	-1.35
	U_{68}-U_{69}	-235.18	-84.39	0.96	1.87	-5.54	-1.24	0.14	0.46	-1.65	-0.50
	U_{69}-U_{70}	-214.86	128.23	-3.68	3.05	-1.64	-0.29	-0.85	0.00	0.00	0.00
	U_{70}-U_{71}	-186.98	640.79	-3.28	9.96	-1.26	-1.18	-1.47	3.55	0.00	0.00
	U_{71}-U_{72}	705.55	109.17	1.28	1.53	8.89	-4.97	1.32	0.31	2.64	-1.66
	U_{72}-U_{73}	-120.52	-238.11	1.66	0.65	-5.76	-4.89	0.44	0.14	-0.62	-1.62
	U_{73}-U_{74}	-201.52	-422.66	1.10	0.30	-5.32	-4.07	0.20	0.00	-1.36	-2.61
	U_{74}-U_{75}	-201.52	70.43	1.78	2.08	-2.08	-0.74	0.30	0.99	-1.62	-0.15
	U_{75}-U_{76}	-214.86	128.23	-3.68	3.05	-1.64	-0.27	-1.39	0.85	0.00	0.00
	U_{76}-U_{77}	-290.99	1663.47	-3.88	23.40	3.37	-4.70	-1.34	5.47	0.00	0.00
	U_{77}-U_{78}	1538.20	1538.20	3.53	3.53	-3.79	-3.79	1.34	1.34	0.00	0.00
	U_{78}-U_{79}	-27.64	20.42	0.75	3.51	0.90	-6.08	0.13	0.62	-0.37	-0.96
	U_{79}-U_{80}	301.84	301.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{80}-U_{81}	186.19	-237.97	2.26	6.41	1.40	-7.83	0.46	0.70	0.18	-1.19
	U_{81}-U_{82}	179.26	-73.23	3.28	4.15	-0.36	-6.56	0.59	0.66	0.03	-1.32
	U_{82}-U_{83}	29.27	-139.61	3.21	3.21	0.29	-5.29	0.58	0.58	0.05	-1.06
	U_{83}-U_{84}	-76.59	-111.03	3.67	3.22	-0.51	-5.29	0.57	0.45	0.79	-1.03
	U_{84}-U_{85}	-158.20	-180.34	3.67	3.22	-0.51	-5.29	0.57	0.45	0.79	-1.03
	U_{85}-U_{86}	-164.13	-164.69	4.49	3.46	-0.87	-6.42	0.68	0.50	1.67	-1.21
	U_{86}-U_{87}	-137.31	-137.31	4.49	3.79	-0.87	-6.42	0.68	0.50	1.67	-1.21
	U_{87}-U_{88}	-44.00	54.78	3.78	3.06	-4.90	-2.43	0.49	0.43	0.96	-0.48
	U_{88}-U_{89}	-69.00	212.40	-3.22	4.71	-2.65	-2.21	0.76	1.00	0.00	0.00
	U_{89}-U_{90}	-91.11	-220.26	-3.22	4.71	-2.65	-2.21	0.76	1.00	0.00	0.00
	U_{90}-U_{91}	-40.57	345.28	-2.66	6.70	-1.65	-0.85	-0.61	1.30	0.00	0.00
	U_{91}-U_{92}	-40.57	345.28	-2.66	6.70	-1.65	-0.85	-0.61	1.30	0.00	0.00
	U_{92}-U_{93}	-146.81	1530.36	-2.83	23.50	4.00	-5.98	-0.97	5.60	0.00	0.00
	U_{93}-U_{94}	1613.34	-340.01	5.93	2.80	24.08	-9.13	1.89	0.69	-1.90	64.05
	U_{94}-U_{95}	84.20	-327.18	5.03	4.24	-3.24	-10.80	0.74	0.58	-1.98	54.36
	U_{95}-U_{96}	253.20	-149.43	3.37	4.35	-1.21	-7.50	0.52	0.39	0.38	-1.49
	U_{96}-U_{97}	358.50	-362.03	4.04	5.63	-6.91	-18.16	0.64	0.55	1.52	-2.40
	U_{97}-U_{98}	-300.96	-456.91	4.43	3.95	-17.96	-10.67	0.69	0.52	-2.31	-1.72
	U_{98}-U_{99}	-158.20	-180.34	3.67	3.22	-0.51	-5.29	0.57	0.45	0.79	-1.03
	U_{99}-U_{100}	-669.38	-449.72	2.27	1.31	-12.38	-6.31	0.00	0.00	-2.06	-1.25
	U_{100}-U_{101}	-1.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{101}-U_{102}	407.37	-91.16	-8.35	0.53	4.91	-0.96	-1.89	0.04	1.61	-0.19
	U_{102}-U_{103}	1538.20	1538.20	3.53	3.53	-3.79	-3.79	1.34	1.34	0.00	0.00
	U_{103}-U_{104}	-290.40	-122.26	7.08	0.99	-2.50	-2.40	-1.64	0.67	0.20	-0.31
	U_{104}-U_{105}	471.42	-311.55	-1.16	0.64	7.69	-6.13	0.25	0.07	3.50	-2.01
	U_{105}-U_{106}	-54.47	-205.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	U_{106}-U_{107}	-21.98	-218.88	0.37	0.70	0.53	-4.66	0.12	0.10	0.40	-1.52
	U_{107}-U_{108}	-361.39	-187.99	0.51	1.63	-9.83	-3.70	-0.02	0.37	1.24	-1.70
	U_{108}-U_{109}	-252.02	-374.51	1.12	1.34	-7.49	-8.64	0.20	0.27	2.34	-3.26
	U_{109}-U_{110}	-444.47	-187.92	1.31	1.35	-13.15	-4.35	0.12	0.24	-3.85	-1.35
	U_{110}-U_{111}	-235.18	-84.39	0.96	1.87	-5.54	-1.24	0.14	0.46	-1.65	-0.50
	U_{111}-U_{112}	-214.86	128.23	-3.68	3.05	-1.64	-0.29	-0.85	0.00	0.00	0.00
	U_{112}-U_{113}	-186.98	640.79	-3.28	9.96	-1.26	-1.18	-1.47	3.55	0.00	0.00
	U_{113}-U_{114}	705.55	109.17	1.28	1.53	8.89	-4.97	1.32	0.31	2.64	-1.66
	U_{114}-U_{115}	156.84	-12.62	2.57	2.42	-1.81	-3.55	0.70	0.62	0.15	-1.34
	U_{115}-U_{116}	46.75	-46.31	2.83	2.50	-1.78	-4.51	0.74	0.52	-0.74	-1.39
	U_{116}-U_{117}	57.88	-78.76	3.38	1.87	-4.17	-3.34	0.74	0.46	-1.03	-1.25
	U_{117}-U_{118}	20.58	-172.42	3.57	0.80	-4.25	-2.79	0.76	0.23	-1.42	-1.15
	U_{118}-U_{119}	-101.33	-63.03	1.75	0.20	-1.00	-0.39	0.53	0.02	-1.79	-0.65
	U_{119}-U_{120}	-55.81	170.19	0.81	1.31	-0.47	-2.80	0.26	0.12	-1.52	-0.15

ZZ Axis Moment Properties

Location	Member	Start (in^4)	End (in^4)	J (in^4)	I_{xx} (in^4)	Shape Factor f	M_p (k-in)	Formula 1.8 Term = F_y*Sx	M_y (k-in)	Equivalent Mem. Factor a	Equivalent Mem. Factor C_{mx}	C_{mx}
Structure 1	U_1-U_2	28.61	24.37	62.26	79.37	2311.82	2448.67	90.2	90.24	72.24	127.46	2147
	U_2-U_3	23.61	28.03	90.2	90.24	72.24	127.46	2147	2147	1328.6	1.41	4206
	U_3-U_4	79.75	79.71	127.46	2147	1328.6	1.41	4206	0.99880004	2974.3	-0.0128	0.55
	U_4-U_5	79.71	79.83	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_5-U_6	79.83	79.96	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_6-U_7	79.96	80.08	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_7-U_8	80.08	80.21	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_8-U_9	80.21	80.33	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_9-U_{10}	80.33	80.46	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{10}-U_{11}	80.46	80.58	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{11}-U_{12}	80.58	80.71	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{12}-U_{13}	80.71	80.83	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{13}-U_{14}	80.83	80.96	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{14}-U_{15}	80.96	81.08	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{15}-U_{16}	81.08	81.21	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{16}-U_{17}	81.21	81.33	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{17}-U_{18}	81.33	81.46	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{18}-U_{19}	81.46	81.58	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{19}-U_{20}	81.58	81.71	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{20}-U_{21}	81.71	81.83	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{21}-U_{22}	81.83	81.96	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{22}-U_{23}	81.96	82.08	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{23}-U_{24}	82.08	82.21	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{24}-U_{25}	82.21	82.33	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{25}-U_{26}	82.33	82.46	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{26}-U_{27}	82.46	82.58	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{27}-U_{28}	82.58	82.71	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{28}-U_{29}	82.71	82.83	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{29}-U_{30}	82.83	82.96	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{30}-U_{31}	82.96	83.08	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{31}-U_{32}	83.08	83.21	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{32}-U_{33}	83.21	83.33	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{33}-U_{34}	83.33	83.46	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{34}-U_{35}	83.46	83.58	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{35}-U_{36}	83.58	83.71	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{36}-U_{37}	83.71	83.83	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{37}-U_{38}	83.83	83.96	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{38}-U_{39}	83.96	84.08	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{39}-U_{40}	84.08	84.21	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{40}-U_{41}	84.21	84.33	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{41}-U_{42}	84.33	84.46	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{42}-U_{43}	84.46	84.58	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{43}-U_{44}	84.58	84.71	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{44}-U_{45}	84.71	84.83	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{45}-U_{46}	84.83	84.96	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{46}-U_{47}	84.96	85.08	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{47}-U_{48}	85.08	85.21	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{48}-U_{49}	85.21	85.33	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{49}-U_{50}	85.33	85.46	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{50}-U_{51}	85.46	85.58	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{51}-U_{52}	85.58	85.71	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{52}-U_{53}	85.71	85.83	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{53}-U_{54}	85.83	85.96	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{54}-U_{55}	85.96	86.08	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{55}-U_{56}	86.08	86.21	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{56}-U_{57}	86.21	86.33	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{57}-U_{58}	86.33	86.46	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{58}-U_{59}	86.46	86.58	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{59}-U_{60}	86.58	86.71	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{60}-U_{61}	86.71	86.83	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{61}-U_{62}	86.83	86.96	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{62}-U_{63}	86.96	87.08	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55
	U_{63}-U_{64}	87.08	87.21	127.46	2147	1328.6	1.41	4206	0.99880001	2974.3	-0.0118	0.55

Moment (End) - Al2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors: DL Factor= 1.30, LL Factor= 2.17
Pedestrian Load Factors: DL Factor= 1.30, LL Factor= 1.60

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load (Max)	Dead Load (Min)	Live Load (Max)	Live Load (Min)	Pedestrian Load (Max)	Pedestrian Load (Min)	Lane Reduction & Impact Live Load Max	Lane Reduction & Impact Live Load Min	Impact Pedestrian Load (Max)	Impact Pedestrian Load (Min)
Structure 1	L_0-L_1	-19.48	-91.69	0.69	0.71	1.75	-2.28	-0.11	0.13	0.30	-0.64
	L_1-L_2	30.30	-116.56	-0.05	2.32	0.52	-4.98	-0.16	0.42	-0.07	-1.33
	L_2-L_3	39.07	-78.01	-0.07	1.50	-1.04	-7.27	-0.21	0.30	-0.10	-1.94
	L_3-L_4	-65.02	14.74	1.32	4.16	-4.45	-3.64	0.23	0.86	-1.19	-1.34
	L_4-L_5	-60.69	-124.13	-0.07	1.23	0.54	-6.96	-0.34	0.25	-0.10	-1.97
	L_5-L_6	-2.17	269.23	0.27	5.67	-0.61	-0.55	-0.31	1.16	0.00	0.00
	L_6-L_7	-2.17	14.79	1.87	1.53	-1.23	-3.61	-0.24	-0.90	-0.34	-0.62
	L_7-L_8	-38.81	57.46	0.34	10.52	0.50	-0.91	-0.35	3.66	0.00	-3.63
	L_8-L_9	555.91	-39.94	2.74	0.57	7.63	-0.84	1.31	0.05	2.10	-0.32
	L_9-L_{10}	185.62	-153.59	0.49	1.75	3.08	-3.62	-0.37	0.49	0.84	-1.00
	L_{10}-L_{11}	164.49	164.37	2.19	1.23	0.88	-4.63	0.70	0.32	0.30	-1.05
	L_{11}-L_{12}	786.56	-201.18	3.29	0.72	10.10	-0.99	1.75	0.26	2.16	-0.23
	L_{12}-L_{13}	-57.21	-170.41	1.60	1.60	0.80	-4.48	-0.33	0.43	0.20	-0.57
	L_{13}-L_{14}	70.10	-469.56	1.22	1.13	-2.65	-8.43	0.35	0.30	-0.45	-2.28
	L_{14}-L_{15}	-488.53	-131.76	0.49	0.83	-3.60	-2.64	-0.33	0.22	-0.44	-0.70
	L_{15}-L_{16}	-272.75	-354.04	0.42	0.79	-4.57	-4.63	0.00	0.00	-1.30	-1.07
	L_{16}-L_{17}	-272.75	-354.04	0.42	0.79	-4.57	-4.63	0.00	0.00	-1.30	-1.07
	L_{17}-L_{18}	-202.30	20.51	-2.79	0.49	-3.91	-5.53	-0.96	0.27	0.06	-0.97
	L_{18}-L_{19}	-202.30	20.51	-2.79	0.49	-3.91	-5.53	-0.96	0.27	0.06	-0.97
	L_{19}-L_{20}	-240.66	180.28	-3.86	0.34	-2.27	-1.10	0.57	0.06	-0.06	-0.33
	L_{20}-L_{21}	-192.40	90.95	-3.33	2.07	-0.66	-2.23	-0.23	0.86	0.06	-0.06
	L_{21}-L_{22}	26.60	-260.09	-0.48	1.04	1.92	-3.44	-0.06	0.13	0.35	-1.08
	L_{22}-L_{23}	201.84	-347.07	-0.45	0.45	2.27	-2.74	-0.11	0.06	0.34	-0.85
	L_{23}-L_{24}	7.16	-277.32	-0.77	1.31	0.74	-3.44	-0.13	0.17	0.23	-1.18
	L_{24}-L_{25}	16.20	-473.24	0.83	1.95	-4.33	-6.03	0.20	0.24	-0.60	-1.66
	L_{25}-L_{26}	-367.51	-421.35	0.73	2.39	-7.26	-8.14	0.04	0.32	-1.24	-1.72
	L_{26}-L_{27}	-367.51	-421.35	0.73	2.39	-7.26	-8.14	0.04	0.32	-1.24	-1.72
	L_{27}-L_{28}	-619.43	-397.04	4.05	4.02	-14.57	-13.20	0.47	0.59	2.41	-2.01
	L_{28}-L_{29}	-394.52	-7.37	3.42	6.47	-12.63	-9.09	0.46	0.90	-1.94	-0.96
	L_{29}-L_{30}	-488.53	-131.76	0.49	0.83	-3.60	-2.64	-0.33	0.22	-0.44	-0.70
	L_{30}-L_{31}	-272.75	-354.04	0.42	0.79	-4.57	-4.63	0.00	0.00	-1.30	-1.07
	L_{31}-L_{32}	-295.59	-352.58	3.16	0.60	-2.40	-3.24	-0.92	1.06	1.43	-0.05
	L_{32}-L_{33}	-153.08	344.61	-1.35	4.71	-2.01	-6.08	-0.40	0.80	0.00	-0.80
	L_{33}-L_{34}	-188.97	686.21	-1.62	9.67	2.34	-1.89	-0.58	1.88	0.00	0.00
	L_{34}-L_{35}	-129.46	-276.11	-4.21	2.37	4.25	-0.91	0.04	0.55	1.24	-0.45
	L_{35}-L_{36}	-4172.30	191.45	4.72	1.36	-4.95	2.00	-0.84	0.26	1.24	-0.89
	L_{36}-L_{37}	1356.12	-488.32	-3.51	2.65	23.11	-4.53	0.00	0.00	0.00	0.00
	L_{37}-L_{38}	306.66	-69.00	-0.11	0.72	3.50	-1.02	-0.05	0.10	0.00	0.00
	L_{38}-L_{39}	579.83	-109.25	3.50	2.38	4.88	-4.26	0.85	0.41	0.93	-0.52
	L_{39}-L_{40}	1356.12	-488.32	-3.51	2.65	23.11	-4.53	0.00	0.00	0.00	0.00
	L_{40}-L_{41}	275.68	-101.76	0.83	3.02	-0.15	-5.28	0.70	0.49	0.12	-0.98
	L_{41}-L_{42}	209.89	-114.93	0.25	4.22	0.10	-9.73	0.42	0.64	-0.18	-1.10
	L_{42}-L_{43}	-153.08	344.61	-1.35	4.71	-2.01	-6.08	-0.40	0.80	0.00	-0.80
	L_{43}-L_{44}	-33.73	-318.64	2.75	5.22	-6.67	-10.79	0.43	0.76	-0.99	-2.03
	L_{44}-L_{45}	326.90	-28.44	3.31	0.57	5.52	-0.82	-0.34	0.08	0.81	-0.15
	L_{45}-L_{46}	-183.23	53.46	3.07	3.44	-4.04	-3.49	0.42	0.44	-0.58	-0.56
	L_{46}-L_{47}	4172.30	191.45	4.72	1.36	-4.95	2.00	-0.84	0.26	1.24	-0.89
	L_{47}-L_{48}	-100.74	310.70	2.65	5.38	-1.91	-3.02	-0.56	1.26	0.00	0.00
	L_{48}-L_{49}	-69.72	308.71	-1.94	4.96	4.07	-0.19	-0.22	0.85	0.69	0.00
	L_{49}-L_{50}	1356.12	-488.32	-3.51	2.65	23.11	-4.53	0.00	0.00	0.00	0.00
	L_{50}-L_{51}	-18.47	-438.87	-0.33	2.61	1.54	-7.75	-0.15	0.00	-0.03	-1.55
	L_{51}-L_{52}	-550.01	-347.94	0.73	2.39	-7.26	-8.14	0.04	0.32	-1.24	-1.72
	L_{52}-L_{53}	1437.37	-471.51	-3.56	2.12	21.79	-8.56	0.00	0.00	0.00	0.00
	L_{53}-L_{54}	-253.75	-181.16	-2.60	4.20	0.43	-5.27	-1.03	-0.01	-1.07	-2.18
	L_{54}-L_{55}	243.13	341.77	3.21	3.55	-0.63	-8.15	0.32	0.46	-0.15	-1.37
	L_{55}-L_{56}	209.20	-203.85	2.14	4.47	2.19	-7.32	0.33	0.60	0.42	-1.24
	L_{56}-L_{57}	-365.08	644.79	2.26	2.82	-14.33	-13.14	0.68	0.27	2.07	-2.23
	L_{57}-L_{58}	-620.48	-212.54	2.81	0.73	-12.24	-4.91	0.38	0.14	-1.36	-0.30
	L_{58}-L_{59}	-434.07	-328.96	3.13	0.43	-9.59	-4.69	-0.74	0.00	-1.17	-0.38
	L_{59}-L_{60}	-457.92	30.47	0.13	4.69	-0.74	0.00	0.00	-1.17	-0.38	-66.17
	L_{60}-L_{61}	-332.43	186.70	-0.22	2.08	0.99	-0.62	-0.17	0.34	0.10	-0.10
	L_{61}-L_{62}	-332.43	186.70	-0.22	2.08	0.99	-0.62	-0.17	0.34	0.10	-0.10
	L_{62}-L_{63}	53.61	-162.26	0.24	3.35	2.29	-4.09	-0.06	0.54	0.53	-0.99
	L_{63}-L_{64}	-192.76	-240.13	-0.39	0.49	2.34	-4.73	-0.10	0.04	0.63	-1.12
	L_{64}-L_{65}	24.14	-186.41	-0.23	0.84	0.11	-2.72	-0.04	0.14	0.01	-0.48
	L_{65}-L_{66}	40.28	-374.07	-0.33	0.78	0.65	-8.29	-0.09	0.05	-0.04	-1.02
	L_{66}-L_{67}	40.28	-374.07	-0.33	0.78	0.65	-8.29	-0.09	0.05	-0.04	-1.02
	L_{67}-L_{68}	-121.39	-679.27	0.19	1.86	4.69	-8.91	0.00	0.30	1.04	-2.51
	L_{68}-L_{69}	-676.75	95.76	2.30	1.64	-2.41	-0.01	0.10	0.38	0.32	-0.38
	L_{69}-L_{70}	-241.27	199.03	2.98	2.68	-1.64	-0.13	-0.97	0.65	0.00	0.00
	L_{70}-L_{71}	-241.27	199.03	2.98	2.68	-1.64	-0.13	-0.97	0.65	0.00	0.00
	L_{71}-L_{72}	-127.13	162.45	-1.97	2.88	1.65	-1.96	-0.85	0.67	0.45	-0.34
	L_{72}-L_{73}	-696.98	-34.68	0.61	6.91	-0.70	0.00	0.00	0.00	0.00	0.00
	L_{73}-L_{74}	88.37	-47.56	0.70	2.72	2.04	-4.96	-0.46	0.66	0.55	-1.21
	L_{74}-L_{75}	88.37	-47.56	0.70	2.72	2.04	-4.96	-0.46	0.66	0.55	-1.21
	L_{75}-L_{76}	-112.39	-133.89	1.88	0.82	3.73	-2.70	0.49	0.22	1.38	-0.49
	L_{76}-L_{77}	-120.88	38.04	-1.60	1.74	0.67	-0.60	-0.88	0.72	0.19	-0.18

Location	Member	ZZ Axis Moments from STAAD: Max Pos. Mom. Start (k-in)	Max Pos. Mom. End (k-in)	Max Neg. Mom. Start (k-in)	Max Neg. Mom. End (k-in)	S_{top} (in^3)	S_b (in^3)	Z_z (in^3)	I_z (in^4)	$I_{t/n}$ (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term * F'c/S_{top}	M_u (k-in)	Equivalent Mom. Factor a	$C_{m/d}$	$C_{m/n}$	Dead Load (Max)	Live Load (Max)	Live Load (Min)	Pedestrian Load (Max)	Pedestrian Load (Min)	Lane Reduction & Impact Live Load Max	Lane Reduction & Impact Live Load Min	Impact Pedestrian Load (Max)	Impact Pedestrian Load (Min)	Max Pos. Mom. Start (k-in)	Max Pos. Mom. End (k-in)	Max Neg. Mom. Start (k-in)	Max Neg. Mom. End (k-in)	S_{top} (in^3)	S_b (in^3)	Z_z (in^3)	$I_{t/n}$ (in^4)	Shape Factor	M_p (k-in)	P_{allow} (kip)	Formula 1.8 Term * F'c/S_{top}	M_u (k-in)	Equivalent Mom. Factor a	$C_{m/d}$	$C_{m/n}$	Pass
	L_0-L_1	-91.69	-19.48	0.69	0.71	1.75	-2.28	-0.11	0.13	0.30	-0.64	-7.41	-7.69	18.80	24.66	-1.37	1.50	3.54	-7.68	-39.58	-104.26	11.14	-77.87	83.6	83.58	74.65	100.97	2577	1026.3	1.21	3332	0.99500394	2755.4	0.380	0.75	0.75	39.17	129.34	0.09	0.32	-2.25	-8.26	-0.03	-0.11	0.46	1.68	0.93	3.40	-24.28	-89.23	-0.36	-1.34	0.48	20.16	46.64	171.48	15.17	-48.52	128.3	128.29	121.63	141.18	626.8	1.10	4659	0.99840542	4225.3	0.272	0.71	0.71	Yes
	L_1-L_2	30.30	-116.56	-0.05	2.32	0.52	-4.98	-0.16	0.42	-0.07	-1.33	-7.31	-11.47	31.47	37.33	-6.84	0.83	5.87	-25.38	-1.86	5.14	-0.82	-15.98	24.20	-107.15	-0.69	-4.73	0.51	-0.46	0.13	0.63	169.27	-70.78	1.91	-0.95	-11.20	8.02	0.15	-0.11	1.96	-0.87	-0.01	0.05	264.82	-114.34	-42.02	-98.94	726.8	1.10	5420	0.99780161	5553.3	0.432	0.43	0.43	Yes
	L_2-L_3	39.07	-78.01	-0.07	1.50	-1.04	-7.27	-0.21	0.30	-0.10	-1.94	-7.27	-15.23	38.45	43.31	-2.69	0.96	6.93	-33.52	-2.51	7.13	-1.09	-21.04	31.9	-141.13	-0.91	-6.23	0.67	-0.61	0.17	0.83	222.95	-93.72	2.51	-1.25	-14.75	10.56	0.20	-0.15	2.58	-1.15	-0.02	0.07	348.72	-150.59	-55.33	-130.29	956.9	1.10	6220	0.99781951	5931.9	0.327	0.60	0.60	Yes
	L_3-L_4	-65.02	14.74	1.32	4.16	-4.45	-3.64	0.23	0.86	-1.19	-1.34	14.22	44.87	-48.09	39.29	2.75	10.34	-14.24	-16.13	-53.71	116.39	-188.73	49.97	99.9	99.93	84.14	129.49	3409	1373.0	1.26	4141	0.99911881	3294.8	0.350	0.74	0.74	-130.68	-134.75	1.67	-0.90	-8.02	4.68	0.04	0.09	1.79	-1.01	18.07	-9.74	-86.61	50.58	0.50	1.13	21.43	-12.14	215.54	-209.28	-11.26	-78.60	171.6	171.61	148.87	749.5	1.10	6220	0.99795195	5851.9	-0.971	0.21	0.21	Yes
	L_4-L_5	-60.69	-124.13	-0.07	1.23	0.54	-6.96	-0.34	0.25	-0.10	-1.97	-7.75	-8.68	17.72	23.58	-1.37	1.50	3.54	-7.68	-38.50	-107.73	11.14	-77.87	83.6	83.58	74.65	100.97	2577	1026.3	1.21	3332	0.99500394	2755.4	0.380	0.75	0.75	38.07	129.34	0.09	0.32	-2.22	-8.19	-0.03	-0.11	0.46	1.66	0.93	3.40	-24.01	-88.34	-0.36	-1.34	0.48	19.96	46.64	170.43	15.01	-48.04	127.0	126.96	120.41	139.76	626.8	1.10	4659	0.99840542	4225.3	0.272	0.71	0.71	Yes
	L_5-L_6	-2.17	269.23	0.27	5.67	-0.61	-0.55	-0.31	1.16	0.00	0.00	3.43	48.82	-17.07	337.05	104.6	504.58	95.61	136.37	9.04	1678.1	1.31	4520	0.99524346	3448.5	0.007	0.60	0.60	141.01	-149.73	1.84	-0.05	-2.12	-0.69	0.57	1.24	0.00	0.00	140.19	-195.70	133.71	-210.74	705.6	1.10	5215	0.99779786	6850.4	-0.634	0.35	0.35	Yes
	L_6-L_7	-2.17	14.79	1.87	1.53	-1.23	-3.61	-0.24	-0.90	-0.34	-0.62	-5.26	-4.13	7.36	5.81	-53.33	110.54	53.37	25.45	1.63	1.53	0.00	-14.54	-2.27	2379.4	1.33	6364	0.99914984	4776.1	-0.007	0.24	0.24	195.55	-32.16	1.52	-0.60	14.25	-10.10	-30.51	32.92	-0.97	-1.97	16.88	-7.29	262.78	139.42	171.77	-68.49	288.5	288.48	246.71	327.09	1086.4	1.12	10626	0.99754397	9455.8	0.533	0.42	0.42	Yes
	L_7-L_8	-38.81	57.46	0.34	10.52	0.50	-0.91	-0.35	3.66	0.00	-3.63	13.59	5.39	0.80	-4.19	43.86	0.00	0.00	-68.31	889.01	-41.69	-66.37	145.8	145.75	130.44	228.84	6550	2932.4	1.57	7552	0.99529151	4806.3	-0.699	0.58	0.58	211.32	334.78	1.33	6.47	3.09	-1.36	7.77	-0.09	0.00	0.00	314.68	369.59	336.72	308.42	355.4	355.44	352.52	403.40	1093.1	1.13	13312	0.99711701	11898.3	0.858	0.94	0.94	Yes
	L_8-L_9	555.91	-39.94	2.74	0.57	7.63	-0.84	1.31	0.05	2.10	-0.32	15.72	0.54	25.15	-3.79	196.25	14.11	901.27	-71.46	145.5	1675.13	136.74	228.84	6550	2932.4	1.57	7552	0.99529151	4806.3	-0.699	0.58	0.58	141.01	-149.73	1.84	-0.05	-2.12	-0.69	0.57	1.24	0.00	0.00	140.19	-195.70	133.71	-210.74	705.6	1.10	5215	0.99779786	6850.4	-0.634	0.35	0.35	Yes
	L_9-L_{10}	185.62	-153.59	0.49	1.75	3.08	-3.62	-0.37	0.49	0.84	-1.00	5.14	0.38	8.38	-11.42	225.92	-199.33	313.52	-284.37	144.9	144.85	129.09	192.94	5210	2379.4	1.33	6364	0.99914984	4776.1	-0.007	0.24	0.24	195.55	-32.16	1.52	-0.60	14.25	-10.10	-30.51	32.92	-0.97	-1.97	16.88	-7.29	262.78	139.42	171.77	-68.49	288.5	288.48	246.71	327.09	1086.4	1.12	10626	0.99754397	9455.8	0.533	0.42	0.42	Yes
	L_{10}-L_{11}	164.49	164.37	2.19	1.23	0.88	-4.63	0.70	0.32	0.30	-1.05	23.62	13.31	9.51	-3.42	8.40	3.86	3.59	-12.60	265.01	-184.85	235.13	122.63	92.6	92.58	83.65	114.47	3295	1304.9	1.24	3777	0.99913812	3252.5	-0.698	0.32	0.32	59.38	67.49	-0.88	-0.37	1.14	-4.34	-0.03	-0.13	-0.77	1.20	-9.45	-3.94	12.27	-46.89	-2.34	-1.61	-9.23	14.34	197.23	75.19	-171.62	-229.66	158.2	158.16	151.51	173.24	694.3	1.10	5717	0.99798353	5208.8	-0.525	0.27	0.27	Yes
	L_{11}-L_{12}	786.56	-201.18	3.29	0.72	10.10	-0.99	1.75	0.26	2.16	-0.23	33.52	11.89	12.52	-3.29	10.76	5.33	5.05	-17.12	376.74	-261.56	332.7	173.52	130.9	130.93	118.33	161.93	4660	1845.7	1.26	5344	0.99811191	4601.3	-0.987	0.45	0.45	84.01	95.49	-1.24	-0.52	1.61	-6.14	-0.05	-0.19	-1.09	1.70	-13.37	-5.57	17.36	-66.33	-3.31	-2.28	-13.06	20.27	279.01	106.36	-242.79	-324.85	223.8	223.79	214.33	245.11	982.2	1.11	8084	0.99719349	7370.2	-0.744	0.32	0.32	Yes
	L_{12}-L_{13}	-57.21	-170.41	1.60	1.60	0.80	-4.48	-0.33	0.43	0.20	-0.57	-7.37	-17.26	8.68	-50.59	-46.80	6.16	2.41	-6.78	-111.66	-37.02	-202.71	-183.97	-322.92	130.1	130.08	121.10	170.72	3885	1793.2	1.31	5634	-53.33	4.53	-1.03	51.89	-0.04	-0.49	-13.26	32.38	135.62	130.93	-101.83	93.29	233.26	201.34	209.94	975.8	1.11	8859	0.99716998	7679.8	-0.995	0.21	0.21	Yes
	L_{13}-L_{14}	70.10	-469.56	1.22	1.13	-2.65	-8.43	0.35	0.30	-0.45	-2.28	13.12	12.25	-28.66	-91.01	4.16	2.75	-5.44	-27.34	119.56	-583.92	29.03	-807.65	162.9	162.89	147.19	219.93	6887	2613.8	1.35	7258	0.99910306	5310.6	-0.036	0.59	0.59	106.48	40.44	0.12	-0.47	-9.25	5.42	-0.05	0.06	1.76	-1.00	1.27	-5.68	-99.90	58.48	-0.56	1.00	21.32	-12.55	141.18	-76.03	179.28	321.7	321.70	275.89	363.71	1221.7	1.13	12002	0.99741170	10568.7	-0.435	0.43	0.43	Yes
	L_{14}-L_{15}	-488.53	-131.76	0.49	0.83	-3.60	-2.64	-0.33	0.22	-0.44	-0.70	-5.47	-4.27	7.61	5.98	-47.36	113.26	47.57	26.31	1.68	1.58	0.00	-13.48	-2.35	2460.7	1.35	6887	0.99910306	5310.6	-0.036	0.59	0.59	106.48	40.44	0.12	-0.47	-9.25	5.42	-0.05	0.06	1.76	-1.00	1.27	-5.68	-99.90	58.48	-0.56	1.00	21.32	-12.55	141.18	-76.03	179.28	321.7	321.70	275.89	363.71	1221.7	1.13	12002	0.99741170	10568.7	-0.435	0.43	0.43	Yes
	L_{15}-L_{16}	-272.75	-354.04	0.42	0.79	-4.57	-4.63	0.00	0.00	-1.30	-1.07	-4.48	-8.53	-49.38	-50.03	0.00	0.00	-15.59	-12.88	-344.87	-441.77	-461.57	-568.64	179.7	179.69	170.65	251.43	5743	2050.7	1.40	8297	0.99912252	5924.6	0.812	0.52	0.52	-10.16	-148.08	1.05	0.48	0.10	4.23	0.00	0.00	1.37	-1.07	11.29	5.19	1.03	45.71	0.00	0.00	16.39	-12.83	11.25	-181.24	-10.98	-93.47	375.4	375.47	322.87	431.42	1347.7	1.15	14237	0.99727272	12356.7	-0.062	0.58	0.58	Yes
	L_{16}-L_{17}	-272.75	-354.04	0.42	0.79	-4.57	-4.63	0.00	0.00	-1.30	-1.07	-4.48	-8.53	-49.38	-50.03	0.00	0.00	-15.59	-12.88	-344.87	-441.77	-461.57	-568.64	179.7	179.69	170.65	251.43	5743	2050.7	1.40	8297	0.99912252	5924.6	0.812	0.52	0.52	-10.16	-148.08	1.05	0.48	0.10	4.23	0.00	0.00	1.37	-1.07	11.29	5.19	1.03	45.71	0.00	0.00	16.39	-12.83	11.25	-181.24	-10.98	-93.47	375.4	375.47	322.87	431.42	1347.7	1.15	14237	0.99727272	12356.7	-0.062	0.58	0.58	Yes
	L_{17}-L_{18}	-202.30	20.51	-2.79	0.49	-3.91	-5.53	-0.96	0.27	0.06	-0.97	-30.18	5.27	-8.82	-13.53	-11.52	3.26	0.66	-0.88	-328.37	38.09	-284.26	14.24	121.1	121.08	112.11	157.22	3591	1640.0	1.30	5188	0.99904448	3891.8	-0.116	0.55	0.55	53.88	-109.03	-2.59	-0.09	-1.41	-1.30	0.90	-0.79	-0.02	0.00	-27.94	-9.53	-13.27	-14.01	10.76	-9.43	-0.19	0.01	9.24	-143.75	36.69	-172.09	-213.3	213.34	184.04	236.66	908.1	1.11	7813	0.99737381	7024.3	-0.213	0.51	0.51	Yes
	L_{18}-L_{19}	-202.30	20.51	-2.79	0.49	-3.91	-5.53	-0.96	0.27	0.06	-0.97	-30.18	5.27	-8.82	-13.53	-11.52	3.26	0.66	-0.88	-328.37	38.09	-284.26	14.24	121.1	121.08	112.11	157.22	3591	1640.0	1.30	5188	0.99904448	3891.8	-0.116	0.55	0.55	53.88	-109.03	-2.59	-0.09	-1.41	-1.30	0.90	-0.79	-0.02	0.00	-27.94	-9.53	-13.27	-14.01	10.76	-9.43	-0.19	0.01	9.24	-143.75	36.69	-172.09	-213.3	213.34	184.04	236.66	908.1	1.11	7813	0.99737381	7024.3	-0.213	0.51	0.51	Yes
	L_{19}-L_{20}	-240.66	180.28	-3.86	0.34	-2.27	-1.10	0.57	0.06	-0.06	-0.33	-17.67	-1.77	8.64	8.73	-2.77	-402.86	273.09	-300.82	214.98	83.6	83.58	74.62	3591	1640.0	1.30	5188	0.99904448	3891.8	-0.116	0.55	0.55	-131.54	114.85	-1.24	-0.11	0.08	-0.02	-1.26	1.00	-0.63	0.00	-13.34	-8.38	-0.23	-19.12	11.95	0.31	0.32	-16.12	102.58	-2.48	135.12	-93.65	0.53	-0.46	-1.66	0.23	0.59	4822	0.99810102	4303.9	0.555	0.60	0.60	Yes
	L_{20}-L_{21}	-192.40	90.95	-3.33	2.07	-0.66	-2.23	-0.23	0.86	0.06	-0.06	-35.96	22.33	-7.14	-2.43	14.80	10.28	0.76	-0.97	-328.04	156.57	262.49	-255.16	74.2	74.23	67.49	92.84	2740	972.0	1.25	3094	0.99917228	2734.4	0.143	0.73	0.73	117.87	11.29	0.74	0.33	1.77	-1.19	-0.15	-0.04	0.03	0.00	0.00	113.69	23.21	0.72	0.33	1.70	-1.15	-0.03	-0.04	0.03	0.00	0.00	113.69	23.21	0.72	0.33	1.70	-1.15	-0.03	-0.04	0.03	0.00	0.00	113.69	23.21

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.83

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
(-) Guide Specifications for Strength Design of Truss Bridges (LDF) 1995 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

ZZ Axis Moments from STAAD

Location	Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Min) Start (k-in)	Pedestrian Load (Min) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Start (k-in)	Impact Pedestrian Load End (k-in)
Structure 1	U_1~L_1	-15.73	54.50	-1.01	2.25	0.54	-0.81	-0.04	0.43	0.03	-0.13
	U_1~L_2	-27.56	29.23	-2.68	2.54	-1.07	-0.98	-0.57	0.52	0.20	-0.18
	U_1~L_3	-39.39	3.96	-5.27	2.83	-1.98	-1.15	-0.26	0.35	-0.22	-0.23
	U_2~L_2	40.63	-41.52	-0.15	0.22	1.58	-1.64	-0.06	0.10	0.17	-0.21
	U_2~L_3	54.81	-27.81	0.00	1.00	0.00	-1.00	0.00	0.00	0.00	-0.16
	U_3~L_3	64.44	-72.23	-0.07	0.14	1.56	-1.68	0.00	0.00	0.00	0.42
	U_3~L_4	84.64	-72.27	-0.93	0.03	1.47	-1.68	-0.05	0.00	0.00	0.42
	U_3~L_5	109.02	-121.41	-0.64	0.67	2.48	-2.64	0.00	0.00	0.00	0.74
	U_4~L_4	-42.58	47.68	-0.31	2.77	0.93	-0.77	-0.53	-0.53	0.20	0.26
	U_4~L_5	-101.49	209.17	-3.52	3.66	0.13	-0.10	-0.94	1.08	0.00	0.00
	U_5~L_5	-123.88	126.08	-2.68	3.03	-0.03	-0.27	-0.61	0.71	-0.04	-0.05
	U_5~L_6	-127.66	127.41	-3.15	3.81	0.00	-0.08	0.55	0.00	-0.04	-0.05
	U_6~L_6	-106.25	107.52	-1.68	2.02	0.02	-0.03	-0.52	0.55	0.00	0.00
	U_6~L_7	-66.44	79.85	-1.12	1.23	0.02	-0.04	-0.35	0.40	0.00	0.00
	U_7~L_7	31.62	36.77	-0.38	0.76	0.01	-0.02	-0.13	0.14	0.00	0.00
	U_7~L_8	17.15	-23.67	-0.42	0.46	1.22	-1.35	-0.10	0.11	0.26	-0.30
	U_8~L_8	60.44	-14.42	-0.32	0.34	1.61	-1.68	-0.09	0.09	0.34	-0.39
	U_8~L_9	74.38	-85.04	-0.32	0.32	1.63	-1.74	-0.06	0.06	0.43	-0.46
	U_9~L_9	137.76	-162.61	-0.43	0.43	2.84	-3.08	-0.08	0.08	0.83	-0.87
	U_9~L_{10}	163.50	-173.08	-0.37	0.36	2.50	-2.74	-0.07	0.07	0.91	-0.96
	U_{10}~L_{10}	187.92	-226.20	-0.23	0.30	2.74	-2.90	-0.06	0.07	1.03	-1.13
	U_{10}~L_{11}	213.50	204.40	-0.17	0.21	3.99	-3.48	-0.03	0.04	1.35	-1.35
	U_{11}~L_{11}	-201.27	206.78	-4.46	4.44	1.16	-1.11	-0.91	0.88	0.15	-0.14
	U_{11}~L_{12}	-179.83	183.03	-3.88	4.04	1.23	-1.25	-0.79	0.82	0.13	-0.13
	U_{12}~L_{12}	-79.55	88.71	-2.14	2.31	0.78	-0.81	-0.37	0.41	0.10	-0.10
	U_{12}~L_{13}	-67.01	54.58	-1.85	1.91	0.74	-0.76	-0.31	0.37	0.09	-0.09
	U_{13}~L_{13}	-4.55	12.51	1.29	1.50	0.94	-1.00	-0.17	0.21	0.13	-0.13
	U_{13}~L_{14}	27.52	-27.99	-0.76	0.81	0.72	-0.82	-0.04	0.05	0.10	-0.12
	U_{14}~L_{14}	59.94	-69.39	-0.11	0.23	0.51	-0.70	-0.01	0.02	0.07	-0.09
	U_{14}~L_{15}	130.30	-141.79	0.00	0.00	2.70	-2.82	0.00	0.00	0.00	0.00
	U_{15}~L_{15}	216.97	-221.44	-0.15	0.00	3.99	-3.93	0.00	0.00	0.00	0.00
	U_{15}~L_{16}	193.17	-200.18	-0.22	0.37	3.95	-3.89	0.00	0.00	0.00	0.00
	U_{16}~L_{16}	194.78	-194.56	-0.47	0.60	3.57	-3.53	0.00	0.00	0.00	0.00
	U_{16}~L_{17}	177.13	-179.95	-0.53	0.63	3.25	-3.21	0.00	0.00	0.00	0.00
	U_{17}~L_{17}	231.79	-230.81	-1.38	1.38	3.58	-3.50	0.00	0.00	0.00	0.00
	U_{17}~L_{18}	26.69	-28.74	-0.74	0.74	0.43	-0.43	0.00	0.00	0.00	0.00
	U_{18}~L_{18}	-225.27	219.21	-4.94	4.72	0.54	-0.37	-0.83	0.81	0.00	0.00
	U_{18}~L_{19}	-202.79	202.79	-4.34	4.34	0.43	-0.43	-0.73	0.73	0.00	0.00
	U_{19}~L_{19}	-182.72	181.55	-4.01	4.03	0.74	-0.89	-0.77	0.78	0.07	0.08
	U_{19}~L_{20}	-159.30	160.85	-4.04	4.49	0.50	-0.84	-0.74	0.76	0.07	0.08
	U_{20}~L_{20}	-92.47	94.95	-2.68	2.99	0.31	-0.52	-0.46	0.47	0.04	0.05
	U_{20}~L_{21}	-59.48	63.33	-1.71	1.90	0.20	-0.33	-0.29	0.30	0.03	0.03
	U_{21}~L_{21}	37.60	-37.60	-0.39	0.39	0.00	0.00	0.00	0.00	0.00	0.00
	U_{21}~L_{22}	70.77	-74.09	-0.39	0.41	0.97	-2.16	-0.05	0.05	0.40	-0.41
	U_{22}~L_{22}	104.64	-104.99	0.47	0.50	3.32	-3.21	-0.06	0.06	0.52	-0.51
	U_{22}~L_{23}	139.52	-141.09	0.47	0.47	4.43	-4.31	-0.06	0.06	0.69	-0.68
	U_{23}~L_{23}	189.52	-191.09	-0.85	0.99	4.28	-4.31	-0.06	0.06	0.80	-0.81
	U_{23}~L_{24}	152.80	-157.46	-0.74	0.74	4.43	-4.38	-0.06	0.06	0.80	-0.81
	U_{24}~L_{24}	207.45	-212.05	-1.93	1.91	3.97	-3.87	0.00	0.00	0.00	0.00
	U_{24}~L_{25}	224.67	-224.67	-4.75	4.75	0.00	0.00	0.00	0.00	0.00	0.00
	U_{25}~L_{25}	-251.63	246.66	-3.74	3.73	0.46	-0.42	-0.82	0.81	0.00	0.00
	U_{25}~L_{26}	-185.28	177.57	-3.50	3.64	0.45	-0.80	-0.66	0.69	0.00	0.00
	U_{26}~L_{26}	-185.33	192.16	-3.21	3.57	-0.05	-0.15	-0.64	0.00	0.00	0.00
	U_{26}~L_{27}	-185.33	192.16	-3.21	3.57	-0.05	-0.15	-0.64	0.00	0.00	0.00
	U_{27}~L_{27}	-116.39	129.35	-2.30	2.46	0.00	0.00	-0.42	0.45	0.00	0.00
	U_{27}~L_{28}	-52.79	62.47	-0.79	1.04	0.00	0.00	-0.18	0.20	0.00	0.00
	U_{28}~L_{28}	19.79	-20.04	-0.81	0.81	0.00	0.00	-0.18	0.18	0.00	0.00
	U_{28}~L_{29}	18.85	-25.58	-0.95	0.98	1.81	-1.98	-0.14	0.14	0.22	-0.25
	U_{29}~L_{29}	89.33	-96.82	-0.72	0.73	2.23	-2.34	-0.10	0.10	0.37	-0.40
	U_{29}~L_{30}	89.33	-96.82	-0.72	0.73	2.23	-2.34	-0.10	0.10	0.37	-0.40
	U_{30}~L_{30}	189.50	-202.27	0.00	0.00	3.46	-3.59	-0.12	0.11	0.78	-0.84
	U_{30}~L_{31}	214.86	-270.07	-0.56	0.81	3.34	-3.96	-0.06	0.10	0.72	-0.93
	U_{31}~L_{31}	227.67	187.15	-0.64	0.64	3.64	-3.32	-0.06	0.06	0.82	-0.75
	U_{31}~L_{32}	-186.34	183.96	-4.24	4.18	0.54	-0.50	-0.71	0.70	0.00	0.00
	U_{32}~L_{32}	-164.22	164.22	-3.76	3.76	0.49	-0.49	-0.64	0.64	0.00	0.00
	U_{32}~L_{33}	-66.05	78.17	-2.22	2.36	0.36	-0.36	-0.44	0.48	0.07	-0.07
	U_{33}~L_{33}	-19.75	29.04	-0.81	0.81	0.00	0.00	-0.18	0.18	0.00	0.00
	U_{33}~L_{34}	-11.00	18.47	-0.52	0.58	0.40	-0.45	-0.22	0.26	0.10	-0.11
	U_{34}~L_{34}	39.39	-43.58	0.00	0.00	1.21	-1.37	0.00	0.00	0.00	0.00
	U_{34}~L_{35}	119.68	-118.18	-0.22	0.26	2.25	-2.29	0.00	0.00	0.00	0.00
	U_{35}~L_{35}	119.68	-118.18	-0.22	0.26	2.25	-2.29	0.00	0.00	0.00	0.00
	U_{35}~L_{36}	129.24	-129.17	-0.22	0.38	2.67	-2.29	0.05	0.02	0.62	-0.71
	U_{36}~L_{36}	180.45	-209.65	-0.63	0.73	3.14	-3.50	0.00	0.00	0.93	-1.09
	U_{36}~L_{37}	24.87	-49.22	-3.12	3.55	2.30	-2.94	-0.77	0.86	0.79	-1.01
	U_{37}~L_{37}	-121.63	132.23	-2.92	3.05	0.10	-0.07	-0.72	0.78	0.00	0.00
	U_{38}~L_{38}	-77.64	76.04	-1.45	1.99	0.00	-0.21	-0.43	0.51	-0.04	-0.03
	U_{39}~L_{39}	42.63	70.41	-0.80	0.86	0.03	-0.09	-0.40	0.43	0.00	0.00
	U_{40}~L_{40}	-57.66	58.81	-0.71	0.73	0.03	-0.01	-0.32	0.33	0.00	0.00
	U_{41}~L_{41}	-41.96	42.31	-0.85	0.99	0.60	-0.75	-0.17	0.20	0.03	-0.06
	U_{42}~L_{42}	-9.20	-2.43	-0.93	1.04	1.19	-1.37	-0.19	0.21	0.28	-0.35
	U_{43}~L_{43}	28.06	-38.33	-0.82	0.78	1.26	-1.32	-0.15	0.16	0.50	-0.53
	U_{44}~L_{44}	78.24	-95.55	-0.49	0.73	1.50	-1.66	-0.15	0.17	0.56	-0.71

ZZ Axis Moment Properties

Member	Max. Pos. Mom. Start (k-in)	Max. Pos. Mom. End (k-in)	S_{top} (in^3)	S_{bot} (in^3)	Z_z (in^3)	I_z (in^4)	I_{NA} (in^4)	Shape Factor f	M_p (k-in)	Formula 1.8 Term * F / S_{bot}	M_y (k-in)	Equivalent Mom. Factor
U_1~L_1	-44.66	123.59	12.49	51.99	15.4	15.42	15.42	23.71	2	751.9	1.54	.782
U_1~L_2	-84.12	121.97	12.91	15.00	15.4	15.42	15.42	23.71	2	751.9	1.54	.782
U_1~L_3	-123.58	120.35	13.33	11.92	15.4	15.42	15.42	23.71	2	751.9	1.54	.782
U_2~L_2	-48.74	83.72	19.99	15.4	15.42	15.42	23.71	2	751.9	1.54	.782	
U_2~L_3	-73.86	47.84	19.99	15.4	15.42	15.42	23.71	2	751.9	1.54	.782	
U_3~L_3	-73.86	47.84	19.99	15.4	15.42	15.42	23.71	2	751.9	1.54	.782	
U_3~L_4	-102.20	120.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9	1.54
U_3~L_5	-131.56	120.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9	1.54
U_4~L_4	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_4~L_5	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_5~L_5	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_5~L_6	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_6~L_6	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_6~L_7	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_7~L_7	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_7~L_8	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_8~L_8	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_8~L_9	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_9~L_9	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_9~L_{10}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{10}~L_{10}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{10}~L_{11}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{11}~L_{11}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{11}~L_{12}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{12}~L_{12}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{12}~L_{13}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{13}~L_{13}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{13}~L_{14}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{14}~L_{14}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{14}~L_{15}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{15}~L_{15}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{15}~L_{16}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{16}~L_{16}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{16}~L_{17}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{17}~L_{17}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{17}~L_{18}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{18}~L_{18}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{18}~L_{19}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{19}~L_{19}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{19}~L_{20}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{20}~L_{20}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{20}~L_{21}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{21}~L_{21}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{21}~L_{22}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{22}~L_{22}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{22}~L_{23}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{23}~L_{23}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{23}~L_{24}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{24}~L_{24}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{24}~L_{25}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{25}~L_{25}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{25}~L_{26}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{26}~L_{26}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{26}~L_{27}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{27}~L_{27}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{28}~L_{28}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{28}~L_{29}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{29}~L_{29}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{29}~L_{30}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{30}~L_{30}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{30}~L_{31}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{31}~L_{31}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{31}~L_{32}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{32}~L_{32}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{32}~L_{33}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{33}~L_{33}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{33}~L_{34}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{34}~L_{34}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{34}~L_{35}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{35}~L_{35}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{35}~L_{36}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{36}~L_{36}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{37}~L_{37}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{38}~L_{38}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{39}~L_{39}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{40}~L_{40}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{41}~L_{41}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{42}~L_{42}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{43}~L_{43}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9
U_{44}~L_{44}	-87.37	-80.52	129.93	-137.11	19.4	19.37	15.00	15.4	15.42	23.71	2	751.9

YY Axis Moments from STAAD

Member	Dead Load Start (k-in)	Dead Load End (k-in)	Live Load (Max) Start (k-in)	Live Load (Max) End (k-in)	Pedestrian Load (Min) Start (k-in)	Pedestrian Load (Min) End (k-in)	Lane Reduction & Impact Live Load Start (k-in)	Lane Reduction & Impact Live Load End (k-in)	Impact Pedestrian Load Start (k-in)	Impact Pedestrian Load End (k-in)
U_1~L_1	129.29	39.52	-26.07	-8.36	2.00	0.64	1.77	0.57	0.12	0.04
U_1~L_2	89.72	28.71	-18.45	-8.29	1.40	-0.26	4.77	2.28	-0.20	-0.25
U_1~L_3	49.78	17.90	-10.83	-8.22	0.80	-0.92	7.77	3.99	-0.28	-0.34
U_2~L_2	119.04	158.44	-16.01	-5.31	-11.89	-7.95	5.12	2.07	-0.39	-0.21
U_2~L_3	148.31	278.96	-21.16	-2.26	-23.77	-15.90	5.45	0.20	-0.58	0.00
U_3~L_3	148.31	278.96	-21.16	-2.26	-23.77	-15.90	5.45	0.20	-0.58	0.00
U_3~L_4	107.67	296.06	-6.42	3.91	-6.78	-2.76	0.00	0.00	0.00	0.00
U_3~L_5	67.03	313.16	8.28	10.08	10.22	2.43	0.00	0.00	0.00	0.00
U_4~L_4	107.67	296.06	-6.42	3.91	-6.78	-2.76	0.00	0.00	0.00	0.00
U_4~L_5	67.03	313.16	8.28	10.08	10.22	2.43	0.00	0.00	0.00	0.00
U_5~L_5	67.03	313.16	8.28	10.08	10.22	2.43	0.00	0.00	0.00	0.00
U_5~L_6	67.03	313.16	8.28	10.08	10.22	2.43	0.00	0.00	0.00	0.00
U_6~L_6	67.03	313.16	8.28	10.08	10.22	2.43	0.00	0.00	0.00	0.00
U_6~L_7	67.03	313.16	8.28	10.08	10.22	2.43	0.00	0.00	0.00	0.00
U_7~L_7	67.03	313.16	8.28	10.08	10.22	2.43	0.00	0.00	0.00	0.00
U_7~L_8	67.03	313.16	8.28	10.08	10.22	2.43	0.00	0.00	0.00	0.00
U_8~L_8	67.03	313.16	8.28	10.08	10.22	2.43	0.00	0.00	0.00	0.00
U_8~L_9	67.03	313.16	8.28

Moment (End) - Al2

Maximum Axial with Moment Interaction Check

Columbia Parkway (HAM-471-0025).
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As Inspected

Vehicle Load Factors		Pedestrian Load Factors	
DL Factor:	1.30	DL Factor:	1.30
LL Factor:	2.17	LL Factor:	1.63

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1996

* MCEB Table 6.6.2.1-1, A.36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

M_z Information

Location	Member	ZZ Axis Moments from STAAD: Dead Load Start (k-ft)	Dead Load End (k-ft)	Live Load (Max) Start (k-ft)	Live Load (Max) End (k-ft)	Pedestrian Load (Min) Start (k-ft)	Pedestrian Load (Min) End (k-ft)	Lane Reduction & Impact Live Load Min Start (k-ft)	Lane Reduction & Impact Live Load Min End (k-ft)	Impact Pedestrian Load Max Start (k-ft)	Impact Pedestrian Load Max End (k-ft)	Max. Pos. Mom. Start (k-ft)	Max. Pos. Mom. End (k-ft)	S_{bb} (in^3)	S_{tb} (in^3)	Z_z (in^3)	I (in^4)	I_{xx} (in^4)	Shape Factor	M_p (k-in)	Formula 1.8 Term = F$_y$*S_{bb}	M_z (k-in)	Equivalent Mom. Factor: a	Equivalent Mom. Factor: C_{mx}	Equivalent Mom. Factor: C_{bmin}	Pass
Structure 1	U_0-L_1	3.62	-1.41	0.01	0.39	-0.02	-0.15	0.15	0.01	0.03	-0.02	-0.13	4.19	-0.24	-1.59	1.75	0.12	-0.35	-0.23	4.42	7.25	4.18	-5.27	15.6	19.63	15.58	25.96	5	804.0	1.66	857	1.5	773.7	0.610	0.84	0.84	—
	U_1-L_1	-11.46	-3.33	-0.41	0.02	-0.52	-0.17	0.25	0.07	0.08	-0.04	-0.47	0.17	-5.64	-1.87	-2.95	0.84	0.98	-0.47	-26.96	-2.69	-27.11	-8.38	15.4	15.42	23.71	2	751.9	1.54	782	1.5	763.3	0.309	0.72	0.72	—
	L_1-U_2	-0.10	-11.79	0.00	-0.15	-0.43	0.00	0.00	-0.04	0.00	0.00	-0.01	-0.47	-0.74	-0.16	-19.32	-1.42	-25.65	15.4	15.42	23.71	2	751.9	1.54	782	1.5	763.3	0.106	0.66	0.66	—
	U_2-L_2	9.82	-15.00	0.15	0.12	-0.03	-0.63	0.08	0.01	-0.08	-0.12	1.62	1.24	-0.35	-6.77	0.90	0.13	-0.94	-1.40	16.86	-17.27	12.01	-34.17	15.4	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.302	0.46	0.46	—
	L_2-U_3	-16.21	25.07	0.04	-0.46	0.03	0.12	-0.17	0.01	-0.01	0.03	-22.10	1.43	-0.64	0.36	1.43	0.24	-0.64	-0.36	1.43	0.24	-0.64	-0.36	19.37	19.37	29.87	3	958.8	1.558	1,493	1.5	1,437.9	0.344	0.84	0.84	—
	U_3-L_3	-34.06	79.11	0.74	1.78	0.00	0.00	-0.28	0.44	0.00	0.00	-8.01	19.23	0.00	0.00	-3.32	5.26	0.00	0.00	-61.64	144.32	-44.28	102.64	31.5	31.5	48.5	4	1183.7	1.51	1753	1.5	1737.0	-0.422	0.43	0.43	—
	L_3-U_4	-71.27	104.34	-2.76	-1.26	0.00	0.00	-0.58	0.76	-1.80	-4.16	15.76	-24.57	-1.25	-12.42	16.79	-2.76	-1.25	-12.42	16.79	-2.76	-1.25	-12.42	31.5	31.5	48.5	4	1183.7	1.51	1753	1.5	1737.0	-0.852	0.26	0.26	—
	U_4-L_4	-1.45	103.74	-0.40	2.05	0.31	-0.39	-0.09	0.65	0.00	0.00	-4.29	22.17	3.30	4.18	-1.07	7.78	0.00	0.00	-10.59	183.53	5.27	125.80	35.1	35.09	53.13	4	1737.0	-0.058	0.58	0.58	—
	L_4-U_5	-12.32	139.19	0.20	2.62	0.15	-0.01	0.01	0.01	0.00	0.00	-2.14	28.33	1.62	0.14	0.52	0.00	0.00	0.00	-20.65	242.32	-12.01	164.62	35.1	35.09	53.13	4	1737.0	-0.292	0.55	0.57	—
	U_5-L_5	-100.86	90.26	-1.96	2.06	0.12	-0.01	-0.50	0.51	0.00	0.00	-21.15	22.23	1.26	-0.15	-0.64	0.00	0.00	0.00	-176.94	189.49	-128.38	117.01	40.7	40.70	60.44	4	1737.0	0.250	0.61	0.61	—
	L_5-U_6	-73.41	69.80	-1.50	1.54	0.00	0.00	-0.31	0.35	0.00	0.00	-16.20	15.63	0.00	0.00	-3.77	4.25	0.00	0.00	-130.53	126.77	-95.43	90.74	39.8	39.77	59.56	4	1737.0	0.731	0.67	0.67	—
	U_6-L_6	-49.89	47.84	-1.02	1.05	0.00	0.00	-0.21	0.23	0.00	0.00	-11.08	10.70	0.00	0.00	-2.58	2.91	0.00	0.00	-89.36	86.83	-65.32	62.11	39.8	39.77	59.56	4	1737.0	0.731	0.67	0.67	—
	L_6-U_7	-49.88	47.84	-0.96	0.68	0.09	-0.01	-0.31	0.21	0.00	0.00	-10.38	7.33	0.93	0.10	-3.70	2.56	0.00	0.00	-113.71	78.26	-88.83	61.06	20.8	20.80	30.67	4	1070.0	1.617	1,444	1.5	1,082.5	0.688	0.52	0.52	—
	U_7-L_7	-27.39	6.37	-0.08	0.20	-0.25	-0.30	-0.03	0.05	-0.12	-0.02	-0.87	2.19	-2.65	-3.79	-0.31	0.61	-1.43	-0.28	-37.53	12.84	-42.26	-42.21	15.4	15.42	23.71	2	751.9	1.54	782	1.5	763.3	0.999	1.00	1.00	—
	L_7-U_8	-0.38	0.20	-0.01	0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	-0.06	0.06	-0.08	-0.11	-0.01	0.02	-0.04	-0.01	-1.07	0.37	-1.21	-1.21	15.4	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.019	0.47	0.47	—
	U_8-L_8	-31.03	12.71	-0.87	0.54	0.22	-0.18	-0.19	0.11	0.05	-0.04	-9.34	5.78	2.34	-1.98	-2.29	1.32	0.56	-0.32	-60.58	29.04	-35.26	12.24	15.4	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.479	0.41	0.41	—
	L_8-U_9	-46.63	27.25	-0.15	0.19	-0.28	-0.19	0.04	-0.04	-12.07	8.22	2.03	-2.01	-3.31	2.27	0.50	-0.48	-66.78	33.23	-50.6	30.53	-49.01	26.19	19.37	19.37	29.87	3	907.0	1.54	986	1.5	958.8	-0.031	0.38	0.38	—
	U_9-L_9	-118.88	85.28	-2.12	1.65	0.31	-0.29	-0.55	0.42	0.06	-0.05	-22.90	17.85	3.33	-3.08	-6.59	5.04	0.67	-0.62	-203.89	149.54	-147.07	104.20	35.1	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.733	0.31	0.31	—
	L_9-U_{10}	-117.64	87.57	-1.93	1.48	0.26	-0.32	-0.57	0.45	0.04	-0.04	-20.89	17.82	2.91	-2.40	-6.75	5.48	0.58	-0.49	-186.18	148.54	-146.84	100.05	35.1	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.746	0.31	0.31	—
	U_{10}-L_{10}	-148.08	120.85	2.01	1.96	0.16	-0.11	-0.79	0.63	0.04	0.04	-27.11	21.11	1.77	-1.88	-8.47	7.56	0.50	-0.46	-231.92	203.71	-188.64	153.04	38.8	38.83	59.23	4	1284.6	1.53	1955	1.5	1922.1	-0.809	0.28	0.28	—
	L_{10}-U_{11}	-86.91	116.74	-1.35	2.27	0.29	-0.55	-0.13	0.38	0.01	-0.06	-14.55	24.54	3.10	-5.91	-1.51	4.57	0.14	-0.70	-144.50	204.93	-106.27	138.96	42.7	42.74	62.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.705	0.32	0.32	—
	U_{11}-L_{11}	-114.16	114.40	-2.79	-0.79	-0.69	0.33	0.12	0.07	0.09	-0.05	-31.36	31.36	-1.20	-1.77	-279.46	279.75	0.00	0.00	-279.46	279.75	-279.46	279.75	42.7	42.74	62.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.594	0.33	0.33	—
	L_{11}-U_{12}	-118.23	92.26	-2.94	2.40	0.94	-0.83	-0.62	0.43	0.11	-0.10	-31.76	25.96	10.13	-8.83	-5.28	5.11	1.37	-1.25	-292.52	216.19	-131.78	100.59	35.1	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.792	0.26	0.28	—
	U_{12}-L_{12}	-34.33	8.81	-1.66	1.17	0.63	-0.20	-0.38	0.27	0.07	-0.02	-8.85	2.28	6.87	-5.70	-0.42	0.29	0.48	-0.39	-116.71	27.34	-116.71	27.34	42.7	42.74	62.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.944	0.31	0.31	—
	L_{12}-U_{13}	-34.33	8.81	-1.16	0.76	0.56	-0.46	-0.18	0.11	0.07	-0.05	-4.55	-2.14	1.27	0.86	-0.72	-0.72	-68.84	28.86	-18.52	0.47	15.4	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.490	0.40	0.40	—
	U_{13}-L_{13}	-13.33	1.47	-1.82	-0.71	0.21	0.07	-0.06	0.01	0.02	0.01	-4.02	-1.31	0.00	0.00	-0.06	-0.06	-14.79	-4.15	-14.79	-4.15	-14.79	-4.15	15.4	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.696	0.40	0.40	—
	L_{13}-U_{14}	-13.33	-37.03	-0.21	0.04	0.24	-0.54	0.00	0.00	0.04	-0.13	-2.26	-0.43	2.99	-2.89	0.85	0.00	0.00	0.00	-1.54	12.43	-42.70	22.54	-60.82	17.2	17.24	26.54	824.7	1.54	878	1.5	853.4	-0.337	0.45	0.45	—
	U_{14}-L_{14}	-66.01	54.01	-0.90	0.75	-0.13	-0.15	-0.23	0.17	0.00	0.00	-9.76	8.07	-1.45	-1.64	-2.80	2.04	0.00	0.00	-106.97	87.70	-88.95	66.66	20.5	20.51	30.40	33.89	8	1017.2	1.65	1118	1.5	1016.2	-0.820	0.27	0.27	—
	L_{14}-U_{15}	-133.77	104.34	-2.74	-1.26	0.00	0.00	-0.58	0.76	-1.80	-4.16	15.76	-24.57	-23.74	17.50	-40.66	30.19	-23.74	17.50	-40.66	30.19	-23.74	17.50	31.5	31.5	48.5	4	1183.7	1.51	1753	1.5	1737.0	-0.852	0.26	0.26	—
	U_{15}-L_{15}	-116.17	105.67	-2.20	2.01	0.00	0.00	-0.36	0.36	0.00	0.00	-23.75	21.68	0.00	0.00	-4.27	4.21	0.00	0.00	-202.48	194.31	-151.02	137.37	42.7	42.74	62.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.910	0.24	0.24	—
	L_{15}-U_{16}	-138.08	126.34	-2.11	2.56	0.00	0.00	-0.36	0.45	0.00	0.00	-23.73	27.61	0.00	0.00	-4.67	5.40	0.00	0.00	-216.91	239.32	-160.52	192.12	42.7	42.74	62.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.744	0.31	0.31	—
	U_{16}-L_{16}	-131.97	151.07	-2.08	2.67	0.73	-0.33	-0.42	0.51	0.00	0.00	-22.41	28.85	7.87	-3.54	-5.03	6.11	0.00	0.00	-220.11	258.89	-154.00	188.71	46.7	46.71	68.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.850	0.26	0.26	—
	L_{16}-U_{17}	-175.19	162.79	-3.09	2.80	1.16	-0.91	-0.64	0.56	0.04	0.02	-33.03	30.23	12.48	-8.74	-7.64	6.66	0.42	-0.22	-299.96	277.12	-250.70	192.69	42.7	42.74	62.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.924	0.24	0.24	—
	U_{17}-L_{17}	-64.39	68.27	-1.65	1.17	0.63	-0.23	-0.33	0.23	0.07	-0.02	-8.85	3.28	6.87	-5.70	-0.42	0.29	0.48	-0.39	-116.71	42.70	-116.71	42.70	42.7	42.74	62.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.944	0.31	0.31	—
	L_{17}-U_{18}	-45.28	-135.71	-1.44	2.86	1.00	-0.38	-0.36	0.49	0.18	-0.02	-15.55	30.92	10.75	-4.13	-4.34	8.62	2.17	-0.28	-92.57	243.42	-35.59	167.49	35.1	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.380	0.45	0.45	—
	U_{18}-L_{18}	-143.90	129.00	-2.94	2.29	0.00	0.00	-0.50	0.41	0.00	0.00	-31.36	25.96	0.00	0.00	-5.94	4.82	0.00	0.00	-268.87	222.62	-196.14	153.07	35.1	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.746	0.31	0.31	—
	L_{18}-U_{19}	-112.49	130.63	-3.01	2.98	0.42	-0.34	-0.48	0.55	0.00	0.00	-32.53	32.23	4.51	-3.68	-5.76	6.59	0.00	0.00	-216.68	246.40	-136.42	168.59	38.8	38.83	59.23	65.30	8	1284.6	1.53	1955	1.5	1922.1	-0.879	0.25	0.25	—
	U_{19}-L_{19}	-83.86	94.66	-2.27	2.22	0.00	0.00	-0.38	0.42	0.00	0.00	-24.25	27.61	0.00	0.00	-4.43	5.04	0.00	0.00	-161.53	183.77	-146.13	166.31	42.7	42.74	62.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.793	0.29	0.29	—
	L_{19}-U_{20}	-83.86	94.66	-2.69	1.91	-0.22	-0.37	0.40	0.00	0.00	0.00	-28.61	21.46	5.55	-2.34	-4.49	4.80	0.00	0.00	-170.74	169.56	-96.72	117.88	35.1	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.993	0.20	0.20	—
	U_{20}-L_{20}	-51.74	54.21	-1.16	1.04	0.35	-0.12	-0.27	0.25	0.00	0.00	-13.77	12.28	3.75	-1.44	-3.26	3.01	0.00	0.00	-94.32	94.90	-55.15	67.36	20.5	20.51	30.40	33.89	8	1017.2	1.65	1118	1.5	1016.2	-0.994	0.20	0.20	—
	L_{20}-U_{21}	-51.74	54.21	-1.16	1.04	0.35	-0.12	-0.27	0.25	0.00	0.00	-13.77	12.28	3.75	-1.44	-3.26	3.01	0.00	0.00	-94.32	94.90	-55.15	67.36	20.5	20.51	30.40	33.89	8	1017.2	1.65	1118	1.5	1016.2	-0.994	0.20	0.20	—
	U_{21}-L_{21}	-14.00	1.02	0.08	0.26	-0.05	-0.61	0.00	0.04	-0.01	-0.08	0.83	2.80	-5.01	-6.60	0.02	0.53	-0.16	-0.96	-16.81	6.73	-19.30	-12.97	15.4	15.42	23.71	2	751.9	1.54	782	1.5	763.3	0.672	0.87	0.87	—
	L_{21}-U_{22}	-18.17	5.29	-0.03	0.03	-0.01	-0.01	0.00	0.00	0.00	0.00	-3.74	0.46	-0.45	-0.60	-0.10	0.05	-0.01	-0.01	-37.54	5.86	-45.10	-5.56	15.4	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.924	0.42	0.42	—
	U_{22}-L_{22}	-32.82	30.91	-1.09	0.79	0.02	-0.13	-0.20	0.17	0.03	0.00	-11.72	8.43	0.22	-1.43	-2.36	2.08	0.40	-0.04	-68.06	58.46	-42.20	37.09	15.4	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.599	0.26	0.26	—
	L_{22}-U_{23}	-53.04	54.01	-1.94	1.75	0.00	0.00	-0.24	0.25	0.00	0.00	-16.67	17.02	-1.08	-2.42	-4.53	4.63	0.00	0.00	-106.97	109.61	-88.95	91.20	20.5	20.51	30.40	33.89	8	1017.2	1.65	1118	1.5	1016.2	-0.913	0.23	0.23	—
	U_{23}-L_{23}	-83.86	100.04	-2.45	2.64	0.69	-0.10	-0.39	0.44	0.00	0.00	-26.46	28.51	-5.47	-1.07	-4.67	5.27	0.00	0.00	-166.38	191.83	-82.88	127.74	35.1	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.887	0.25	0.25	—
	L_{23}-U_{24}	-98.49	117.09	-2.41	2.70	0.82	-0.41	-0.42	0.49	0.00	0.00	-26.04	29.12	8.81	-4.42	-5.02	5.86	0.00	0.00	-184.45	215.30	-108.94	142.64	35.1	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.857	0.26	0.26	—
	U_{24}-L_{24}	-58.08	134.21	-2.65	3.06	0.00	0.00	-0.41	0.51	0.00	0.00	-30.08	34.85	8.21	-4.11	-5.81	6.79	0.00	0.00	-190.90	247.00	-112.98	163.61	38.8	38.83	59.23	65.30	8	1284.6	1.53	1955	1.5	1922.1	-0.757	0.30	0.30	—
	L_{24}-U_{25}	-125.63	123.54	-2.69	2.42	1.53	-1.24	-0.52	0.49	0.01	-0.01	-29.02	28.16	16.48	-13.39	-6.22	5.89	-0.14	-0.08	-226.22	217.28	-127.63	131.59	35.1	35.09	53.51	4	1183.7	1.53	1766	1.5	1737.0	-0.969	0.22	0.22	—
	U_{25}-L_{25}	-30.08	33.85	-1.24	1.23	0.00	0.00	-0.14	0.15	0.00	0.00	-8.01	9.08	-4.24	-5.36	7.26	0.00	0.00	0.00	-162.01	212.32	-88.97	235.02	42.7	42.74	62.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.518	0.39	0.39	—
	L_{25}-U_{26}	-83.58	187.86	-2.28	2.92	0.84	-0.39	-0.45	0.61	0.00	0.00	-24.62	31.53	9.08	-4.24	-5.36	7.26	0.00	0.00	-162.01	212.32	-88.97	235.02	42.7	42.74	62.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.518	0.39	0.39	—
	U_{26}-L_{26}	-83.86	187.86	-2.73	3.06	0.00	0.00	-0.41	0.51	0.00	0.00	-30.08	34.85	8.21	-4.11	-5.81	6.79	0.00	0.00	-190.90	247.00	-112.98	163.61	38.8	38.83	59.23	65.30	8	1284.6	1.53	1955	1.5	1922.1	-0.757	0.30	0.30	—
	L_{26}-U_{27}	-138.54	150.45	-2.78	2.40	0.47	-0.05	-0.45	0.53	0.00	0.00	-30.06	25.93	5.03	-0.58	-5.42	6.30	0.00	0.00	-245.22	251.77	-169.25	194.32	46.7	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.974	0.21	0.21	—
	U_{27}-L_{27}	-128.90	122.99	-1.44	1.80	0.00	0.00	-0.40	0.44	0.00	0.00	-15.53	19.47	0.00	0.00	-4.85	5.30	0.00	0.00	-201.22	202.07	-159.68	166.67	46.7	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.996	0.20	0.20	—
	L_{27}-U_{28}	-128.90	122.99	-1.44	1.80	0.00	0.00	-0.40	0.44	0.00	0.00	-15.53	19.47	0.00	0.00	-4.85	5.30	0.00	0.00	-201.22	202.07	-159.68	166.67	46.7	46.71	71.43	10	1711.0	1.53	2357	1.5	2312.1	-0.996	0.20	0.20	—
	U_{28}-L_{28}	-128.40	95.00	-1.55	1.42	-0.59	-0.01	-0.41	0.35	0.00	0.00	-16.76	13.30	-6.36	-0.14	-4.96	4.16	0.00	0.00	-203.24	166.66	-160.71	123.19	38.8	38.83	59.23	65.30	8	1284.6	1.53	1955	1.5	1922.1	-0.771	0.25	0.29	—
	L_{28}-U_{29}	-88.88	-32.25	0.00	0.00	0.20	-0.47	0.00	0.00	0.03	0.12	0.00	0.00	0.00	0.00	-1.49	11.55	-41.92	16.30	-52.97	17.72	17.24	17.24	26.54	26.54	824.7	1.54	878	1.5	853.4	-0.309	0.48	0.48	—
	U_{29}-L_{29}	-4.65	-13.30	-0.93	0.46	0.51	-0.38	-0.11	-0.03	0.05	-0.02	-9.09	-1.30	0.30	0.89	-0.71	-27.76	-9.62	5.99	-26.15	19.4	15.42	15.42	23.71	2	751.9	1.54	782	1.5	763.3	0.238	0.70	0.70	—
	L_{29}-U_{30}	-18.17	5.29	-0.03	0.03	-0.01	-0.01	0.00	0.00	0.00	0.00	-3.74	0.46	-0.45	-0.60	-0.10	0.05	-0.01	-0.01	-37.54	5.86	-45.10	-5.56	15.4	15.42	23.71	2	751.9	1.54	782	1.5	763.3	-0.924	0.42	0.42	—
	U_{30}-L_{30}	-43.21	40.39	-1.65	1.24	0.54	-0.47	-0.27	0.19	0.07	-0.02	-7.87	13.40	5.84	-5.07	-3.20	2.30	0.84	-0.78	-120.78	81.55	-83.91	49.51	21.5	21.54	33.27	5	987.9	1.54	1096	1.5	1068.2	-0.675	0.33	0.33	—
	L_{30}-U_{31}	-43.21	40.39	-1.65	1.24	0.54	-0.47	-0.27	0.19	0.07	-0.02	-7.87	13.40	5.84	-5.07	-3.20	2.30	0.84	-0.78	-120.78	81.55	-83.91	49.51	21.5	21.54	33.27	5	987.9	1.54	1096	1.5	1068.2	-0.675	0.33	0.33	—
	U_{31}-L_{31}	-135.93	107.52	-2.61	2.22	0.68	-0.61	-0.55	0.45	0.08	-0.06	-28.14	23.97	5.32	-3.56	-6.59	5.39	1.01	-0.96	-237.69	191.70	-160.84	125.57	42.7	42.74	62.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.857	0.28	0.28	—
	L_{31}-U_{32}	-135.93	107.52	-2.61	2.22	0.68	-0.61	-0.55	0.45	0.08	-0.06	-28.14	23.97	5.32	-3.56	-6.59	5.39	1.01	-0.96	-237.69	191.70	-160.84	125.57	42.7	42.74	62.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.857	0.28	0.28	—
	U_{32}-L_{32}	-66.35	89.44	-1.82	2.04	0.13	-0.22	-0.12	0.38	0.01	-0.01	-17.00	22.23	0.38	-1.24	-3.48	4.51	0.08	-0.31	-124.16	164.01	-83.26	111.19	38.8	38.83	59.23	65.30	8	1284.6	1.53	1955	1.5	1922.1	-0.757	0.30	0.30	—
	L_{32}-U_{33}	-137.90	96.45	-2.96	2.17	0.38	-0.31	-0.75	0.56	0.03	-0.03	-31.95	23.46	4.15	-3.38	-9.01	6.67	0.60	-0.60	-248.49	176.21	-170.28	118.06	38.8	38.83	59.23	6	1284.6	1.53	1955	1.5	1922.1	-0.709	0.32	0.32	—
	U_{33}-L_{33}	-113.96	82.81	-2.46	1.80	0.00	0.00	-0.33	0.38	0.00	0.00	-26.46	20.15	0.00	0.00	-4.09	4.56	0.00	0.00	-209.56	159.91	-141.00	107.61	42.7	42.74	62.74	65.30	8	1389.6	1.53	2155	1.5	2115.6	-0.744	0.31	0.31	—
	L_{33}-U_{34}	-43.89	24.72	-1.46	0.77	0.26	-0.21	-0.30	0.20	0.05	-0.03	-14.17	8.35	2.43	-2.59	-3.54	2.40	0.55	-0.53	-91.15	50.22	-50.92	27.17	19.4	19.37	29.87	3	907.0	1.54	986	1.5	958.8	-0.551	0.38	0.38	—
	U_{34}-L_{34}	-2.65	-25.29	0.00	0.00	-0.22	-0.76	0.00	0.00	-0.05	0.00	-0.09

Moment (End) AI Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
North Truss - Upper Chord	Structure 1	U_0 - U_1	85.01	-595.25	-171	162	-436	-567	8	12	-66	-131	0.097	0.157	0.26	Yes	0.067	0.108	0.18	Yes	0.810	0.185	1.00	Yes	0.803	0.135	0.94	Yes	1.00	**4.77**
		U_1 - U_2	76.97	-598.24	-54	118	-159	-623	-7	-7	-16	-154	0.088	0.174	0.27	Yes	0.061	0.119	0.18	Yes	0.814	0.181	1.00	Yes	0.807	0.148	0.96	Yes	1.00	**2.59**
		U_2 - U_3	188.07	-638.22	-107	306	-455	-300	10	26	-26	129	0.216	0.130	0.35	Yes	0.145	0.085	0.24	Yes	0.868	0.128	1.00	Yes	0.861	0.108	0.97	Yes	1.00	**2.40**
		U_3 - U_4	358.25	-559.83	84	318	-390	-616	5	38	156	61	0.411	0.173	0.59	Yes	0.282	0.118	0.41	Yes	0.762	0.233	1.00	Yes	0.755	0.146	0.91	Yes	1.00	**2.36**
		U_4 - U_5	379.58	-582.14	139	310	-869	-148	21	-31	93	-51	0.435	0.222	0.66	Yes	0.299	0.153	0.46	Yes	0.792	0.195	0.99	Yes	0.785	0.207	1.00	Yes	1.00	**2.48**
		U_5 - U_6	282.71	-490.95	-490	1281	-501	-68	386	-892	1350	-1457	0.324	0.551	0.88	Yes	0.219	0.364	0.59	Yes	0.668	0.332	1.00	Yes	0.662	0.304	0.97	Yes	1.00	**9.43**
		U_6 - U_7	896.09	-----	396	233	-333	25	-318	-132	386	-118	0.857	0.137	1.00	Yes	0.599	0.094	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.07**
		U_7 - U_8	1001.34	-----	-391	1802	-91	784	-210	-222	-241	-116	0.694	0.298	1.00	Yes	0.484	0.203	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.06**
		U_8 - U_9	768.32	-----	724	-98	1682	-780	-655	-155	-383	-58	0.630	0.363	1.00	Yes	0.431	0.247	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.23**
		U_9 - U_{10}	762.57	-----	246	336	266	-281	-259	30	-18	566	0.827	0.166	1.00	Yes	0.560	0.111	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.07**
		U_{10} - U_{11}	365.72	-617.11	370	-28	299	-923	23	102	215	143	0.397	0.241	0.64	Yes	0.264	0.155	0.42	Yes	0.795	0.165	0.96	Yes	0.787	0.207	1.00	Yes	1.00	**3.42**
		U_{11} - U_{12}	-----	-895.71	231	-103	49	-657	112	403	154	614	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.151	1.00	Yes	0.840	0.109	0.95	Yes	1.00	**2.13**
		U_{12} - U_{13}	-----	-1275.60	10	-234	-193	-574	346	205	538	331	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.133	1.00	Yes	0.852	0.079	0.94	Yes	1.00	**2.12**
		U_{13} - U_{14}	-----	-1350.43	-154	-389	-461	-1405	225	177	383	502	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.213	1.00	Yes	0.774	0.155	0.93	Yes	1.00	**1.69**
		U_{14} - U_{15}	-----	-1349.86	-280	-254	-1309	-604	213	29	589	169	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.210	1.00	Yes	0.774	0.144	0.92	Yes	1.00	**1.68**
		U_{15} - U_{16}	-----	-1478.19	-196	-411	-554	-794	79	46	428	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.857	0.135	1.00	Yes	0.847	0.088	0.94	Yes	1.00	**2.04**
		U_{16} - U_{17}	-----	-1410.51	-328	-185	-1144	-442	182	-34	626	85	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.178	1.00	Yes	0.809	0.126	0.94	Yes	1.00	**2.67**
		U_{17} - U_{18}	-----	-1101.60	-673	105	-355	-86	459	-58	252	-263	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.122	1.00	Yes	0.862	0.110	0.98	Yes	1.00	**2.45**
		U_{18} - U_{19}	-----	-741.53	-719	-38	-191	-74	470	-280	14	-115	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.158	1.00	Yes	0.834	0.145	0.98	Yes	1.00	**2.67**
		U_{19} - U_{20}	-----	-469.80	-1547	2339	-535	32	416	-1351	69	-60	-----	-----	-----	-----	-----	-----	-----	-----	0.533	0.333	0.87	Yes	0.529	0.471	1.00	Yes	1.00	**5.72**
	Structure 2	U_0 - U_1	-----	-654.39	-105	-9	-186	-1305	9	-61	-54	-117	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.222	1.00	Yes	0.773	0.222	1.00	Yes	1.00	**5.54**
		U_1 - U_2	-----	-877.09	-54	-146	47	-879	-72	-219	-34	-152	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.141	1.00	Yes	0.847	0.133	0.98	Yes	1.00	**2.97**
		U_2 - U_3	-----	-1214.62	-109	-227	-74	-1141	-23	409	-83	106	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.132	1.00	Yes	0.862	0.116	0.98	Yes	1.00	**2.61**
		U_3 - U_4	-----	-1456.00	-401	-372	-804	-1057	260	366	172	130	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.157	1.00	Yes	0.829	0.094	0.93	Yes	1.00	**2.25**
		U_4 - U_5	-----	-1547.97	-452	-328	-827	-1387	809	319	242	139	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.193	1.00	Yes	0.795	0.115	0.91	Yes	1.00	**2.00**
		U_5 - U_6	-----	-1650.74	-391	73	-1155	-775	182	-247	264	381	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.144	1.00	Yes	0.848	0.096	0.95	Yes	1.00	**1.97**
		U_6 - U_7	-----	-1396.09	-260	-83	-957	-1431	-152	-196	336	134	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.192	1.00	Yes	0.795	0.128	0.93	Yes	1.00	**1.59**
		U_7 - U_8	-----	-1407.04	-178	-154	-1532	-825	-114	-192	207	53	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.186	1.00	Yes	0.801	0.137	0.94	Yes	1.00	**1.62**
		U_8 - U_9	-----	-1275.02	-244	157	-960	-399	-108	-208	309	-229	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.121	1.00	Yes	0.865	0.102	0.97	Yes	1.00	**1.78**
		U_9 - U_{10}	526.79	-996.18	147	620	-1063	-267	-224	-196	467	-274	0.386	0.180	0.57	Yes	0.262	0.122	0.39	Yes	0.865	0.134	1.00	Yes	0.860	0.129	0.99	Yes	1.00	**3.35**
		U_{10} - U_{11}	657.01	-827.19	291	469	-1088	-96	-217	-183	334	-135	0.555	0.194	0.75	Yes	0.378	0.126	0.51	Yes	0.827	0.170	1.00	Yes	0.822	0.153	0.98	Yes	1.00	**2.91**
		U_{11} - U_{12}	834.16	-438.14	-1636	1217	-672	122	382	-182	-83	-515	0.705	0.294	1.00	Yes	0.473	0.196	0.67	Yes	0.438	0.134	0.58	Yes	0.435	0.231	0.67	Yes	1.00	**5.73**
		U_{12} - U_{13}	1263.79	-----	557	159	-756	-303	-475	-411	423	-451	0.853	0.140	1.00	Yes	0.608	0.096	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.80**
		U_{13} - U_{14}	1235.62	-----	-861	3517	-274	1458	-416	-867	-428	-454	0.608	0.385	1.00	Yes	0.430	0.253	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.10**
		U_{14} - U_{15}	1282.27	-----	1302	68	3204	-320	-818	-609	-1040	-627	0.631	0.368	1.00	Yes	0.446	0.242	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.95**
		U_{15} - U_{16}	1407.19	-----	42	560	-2	-172	-907	-671	-304	469	0.851	0.140	1.00	Yes	0.605	0.097	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.74**
		U_{16} - U_{17}	1155.61	-----	595	435	885	-606	-322	-75	310	212	0.852	0.145	1.00	Yes	0.567	0.095	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.98**
		U_{17} - U_{18}	797.92	-----	417	388	604	-574	1	201	55	627	0.801	0.194	1.00	Yes	0.533	0.128	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.74**
		U_{18} - U_{19}	822.26	-523.99	528	426	394	-723	60	113	351	276	0.825	0.174	1.00	Yes	0.542	0.111	0.66	Yes	0.623	0.184	0.81	Yes	0.619	0.123	0.75	Yes	1.00	**3.39**
		U_{19} - U_{20}	613.44	-780.55	389	334	-126	-537	1	-62	128	419	0.575	0.143	0.72	Yes	0.381	0.093	0.48	Yes	0.867	0.128	1.00	Yes	0.861	0.086	0.95	Yes	1.00	**2.82**
		U_{20} - U_{21}	484.02	-945.67	217	210	-236	-569	-83	-73	290	169	0.375	0.114	0.49	Yes	0.263	0.075	0.34	Yes	0.869	0.122	1.00	Yes	0.863	0.082	0.95	Yes	1.00	**2.51**
		U_{21} - U_{22}	311.41	-833.79	75	153	-509	-1121	-29	30	185	340	0.242	0.200	0.45	Yes	0.171	0.134	0.31	Yes	0.767	0.228	1.00	Yes	0.761	0.162	0.93	Yes	1.00	**1.86**
		U_{22} - U_{23}	313.12	-836.99	163	56	-1108	-507	-3	-10	407	83	0.243	0.205	0.45	Yes	0.172	0.138	0.31	Yes	0.769	0.226	1.00	Yes	0.764	0.160	0.93	Yes	1.00	**1.86**
		U_{23} - U_{24}	984.54	-894.07	435	423	-510	-745	-226	-28	686	-809	0.764	0.196	0.97	Yes	0.535	0.131	0.67	Yes	0.822	0.177	1.00	Yes	0.816	0.108	0.93	Yes	1.00	**4.82**
		U_{24} - U_{25}	814.50	-802.94	452	424	-670	-237	-211	1	354	-159	0.764	0.155	0.92	Yes	0.506	0.102	0.61	Yes	0.891	0.107	1.00	Yes	0.886	0.107	1.00	Yes	1.00	**3.85**
		U_{25} - U_{26}	868.45	-135.98	443	476	-168	56	-274	3	161	-256	0.872	0.121	1.00	Yes	0.572	0.077	0.65	Yes	0.162	0.125	0.29	Yes	0.161	0.081	0.25	Yes	1.00	**3.81**
		U_{26} - U_{27}	490.78	-212.35	-2433	1572	-535	99	609	-363	-291	-275	0.493	0.502	1.00	Yes	0.328	0.333	0.67	Yes	0.252	0.260	0.52	Yes	0.251	0.413	0.67	Yes	1.00	**8.90**
		U_{27} - U_{28}	1054.00	-----	-452	1262	-137	253	145	-538	-31	-277	0.777	0.215	1.00	Yes	0.517	0.142	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		U_{28} - U_{29}	1502.01	-----	-301	128	-385	-85	108	-554	145	-372	0.908	0.091	1.00	Yes	0.646	0.062	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.03**
		U_{29} - U_{30}	1301.79	-----	-397	3299	-18	1049	-503	-745	-310	-207	0.640	0.356	1.00	Yes	0.453	0.234	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.23**
		U_{30} - U_{31}	1290.84	-----	1087	50	3228	-592	-612	-340	-899	-449	0.635	0.360	1.00	Yes	0.449	0.237	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.25**
		U_{31} - U_{32}	1282.49	-----	45	499	-50	-317	-526	-275	-3	736	0.866	0.133	1.00	Yes	0.617	0.092	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.79**
		U_{32} - U_{33}	996.11	-----	513	339	780	-836	-108	-22	186	279	0.841	0.152	1.00	Yes	0.565	0.101	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.28**
		U_{33} - U_{34}	887.82	-724.60	483	376	-70	-920	-14	211	418	982	0.750	0.250	1.00	Yes	0.510	0.165	0.68	Yes	0.724	0.219	0.95	Yes	0.720	0.130	0.85	Yes	1.00	**3.54**
		U_{34} - U_{35}	451.45	-944.59	414	125	-62	-1082	179	148	592	462	0.331	0.196	0.53	Yes	0.224	0.132	0.36	Yes	0.820	0.177	1.00	Yes	0.815	0.132	0.95	Yes	1.00	**2.52**
		U_{35} - U_{36}	209.90	-1246.19	213	-104	-313	-906	96	85	360	437	0.121	0.132	0.26	Yes	0.085	0.088	0.18	Yes	0.851	0.146	1.00	Yes	0.845	0.096	0.95	Yes	1.00	**2.26**
		U_{36} - U_{37}	2.72	-1386.82	-38	54	-748	-1576	84	-4	409	269	0.001	0.169	0.18	Yes	0.001	0.115	0.12	Yes	0.795	0.203	1.00	Yes	0.790	0.140	0.94	Yes	1.00	**2.00**
		U_{37} - U_{38}	-----	-1381.47	144	-127	-1459	-953	41	22	324	232	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.204	1.00	Yes	0.787	0.130	0.92	Yes	1.00	**1.98**
		U_{38} - U_{39}	-----	-1630.77	185	-265	-726	-1261	129	-27	538	-69	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.147	1.00	Yes	0.837	0.104	0.95	Yes	1.00	**2.30**
		U_{39} - U_{40}	-----	-1559.69	-214	-299	-1520	-941	60	10	440	91	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.185	1.00	Yes	0.801	0.126	0.93	Yes	1.00	**2.32**
		U_{40} - U_{41}	-----	-1461.99	-216	-306	-1169	-800	58	-76	394	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.154	1.00	Yes	0.832	0.104	0.94	Yes	1.00	**2.51**
		U_{41} - U_{42}	-----	-1222.66	-1140	-3	-99	-157	392	-132	-71	-80	-----	-----	-----	-----	-----	-----	-----	-----	0.873	0.119	1.00	Yes	0.868	0.116	0.99	Yes	1.00	**2.86**
		U_{42} - U_{43}	-----	-813.46	-465	-34	-945	-322	-249	-269	491	-254	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.207	1.00	Yes	0.785	0.143	0.93	Yes	1.00	**4.70**
		U_{43} - U_{44}	-----	-532.72	-1741	2176	56	-317	151	-1062	-55	73	-----	-----	-----	-----	-----	-----	-----	-----	0.633	0.241	0.88	Yes	0.629	0.369	1.00	Yes	1.00	**4.84**
	Structure 3	U_0 - U_1	-----	-684.03	-23	-141	-207	-1110	-3	-38	-160	-225	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.218	1.00	Yes	0.770	0.223	1.00	Yes	1.00	**7.22**
		U_1 - U_2	-----	-755.47	-38	-132	140	-665	-63	-233	-67	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.138	1.00	Yes	0.850	0.134	0.99	Yes	1.00	**2.95**
		U_2 - U_3	-----	-1097.76	-79	-157	36	-660	-51	342	-119	185	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.122	1.00	Yes	0.859	0.107	0.97	Yes	1.00	**2.72**
		U_3 - U_4	-----	-1448.12	-166	-290	-390	-930	351	551	228	258	-----	-----	-----	-----	-----	-----	-----	-----	0.839	0.160	1.00	Yes	0.830	0.103	0.94	Yes	1.00	**2.70**
		U_4 - U_5	-----	-1485.41	-400	-52	-646	-548	689	230	342	167	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.135	1.00	Yes	0.852	0.071	0.93	Yes	1.00	**2.26**
		U_5 - U_6	-----	-1370.41	-187	-281	-583	-1407	141	-149	260	315	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.206	1.00	Yes	0.786	0.155	0.95	Yes	1.00	**1.82**
		U_6 - U_7	-----	-1380.42	-380	-107	-1478	-456	-89	-186	399	58	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.198	1.00	Yes	0.791	0.163	0.96	Yes	1.00	**1.85**
		U_7 - U_8	6.62	-1248.02	-106	168	-593	-532	-106	-231	613	-1009	0.004	0.162	0.17	Yes	0.003	0.106	0.11	Yes	0.844	0.155	1.00	Yes	0.834	0.082	0.92	Yes	1.00	**4.55**
		U_8 - U_9	151.32	-908.54	7	347	-835	-51	-103	-176	245	-330	0.121	0.178	0.30	Yes	0.082	0.119	0.21	Yes	0.860	0.139	1.00	Yes	0.852	0.139	1.00	Yes	1.00	**3.94**
		U_9 - U_{10}	-----	-535.24	-1390	857	-200	80	453	-377	-39	-88	-----	-----	-----	-----	-----	-----	-----	-----	0.689	0.218	0.91	Yes	0.683	0.311	1.00	Yes	1.00	**6.72**
		U_{10} - U_{11}	685.48	-----	-388	682	14	60	234	-605	-34	-131	0.744	0.250	1.00	Yes	0.504	0.168	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.30**
		U_{11} - U_{12}	814.68	-----	-541	1570	-155	559	-211	-520	-217	-189	0.668	0.327	1.00	Yes	0.457	0.223	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.31**
		U_{12} - U_{13}	831.06	-----	704	204	2262	-940	-786	-463	-645	-258	0.576	0.423	1.00	Yes	0.402	0.289	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.37**
		U_{13} - U_{14}	878.39	-----	225	461	69	-95	-408	-211	-117	290	0.840	0.154	1.00	Yes	0.587	0.106	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		U_{14} - U_{15}	743.35	-242.72	485	360	307	-355	-145	-37	154	36	0.852	0.141	1.00	Yes	0.575	0.092	0.67	Yes	0.330	0.154	0.49	Yes	0.327	0.115	0.45	Yes	1.00	**3.30**
		U_{15} - U_{16}	506.67	-563.99	396	279	-144	-834	-70	135	91	458	0.581	0.276	0.86	Yes	0.399	0.189	0.59	Yes	0.767	0.228	1.00	Yes	0.761	0.198	0.96	Yes	1.00	**2.90**
		U_{16} - U_{17}	506.96	-575.27	467	177	-621	-409	58	81	447	216	0.581	0.223	0.81	Yes	0.399	0.153	0.56	Yes	0.783	0.217	1.00	Yes	0.776	0.148	0.93	Yes	1.00	**2.93**
		U_{17} - U_{18}	303.13	-617.39	415	-37	-290	-480	-96	65	316	-19	0.347	0.168	0.52	Yes	0.234	0.110	0.35	Yes	0.840	0.154	1.00	Yes	0.833	0.114	0.95	Yes	1.00	**2.75**
		U_{18} - U_{19}	145.27	-543.84	231	-28	-630	-333	-96	40	513	-17	0.167	0.236	0.41	Yes	0.114	0.162	0.28	Yes	0.740	0.255	1.00	Yes	0.733	0.150	0.89	Yes	1.00	**2.66**
		U_{19} - U_{20}	89.00	-524.73	-1090	1215	296	-458	414	-759	-215	239	0.102	0.417	0.52	Yes	0.070	0.285	0.36	Yes	0.714	0.161	0.88	Yes	0.708	0.289	1.00	Yes	1.00	**4.92**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression													
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in	-----	-----	-----	-----	-----	-----	-----	-----										
North Truss - Lower Chord	Structure 1	L_0 - L_1			-----	-163.73	-642	534	1900	-2326	-78	-287	-61	-223	-----	-----	-----	-----	-----	-----	-----	-----	0.297	0.547	0.85	Yes	0.295	0.698	1.00	Yes	1.00	**27.30**
		L_1 - L_2			484.36	-70.03	137	67	157	-741	-24	-64	-154	-85	0.741	0.256	1.00	Yes	0.452	0.172	0.63	Yes	0.127	0.130	0.26	Yes	0.126	0.222	0.35	Yes	1.00	**3.75**
		L_2 - L_3			723.60	-154.18	26	121	-469	-621	-41	48	-98	-54	0.832	0.166	1.00	Yes	0.482	0.099	0.59	Yes	0.211	0.185	0.40	Yes	0.209	0.150	0.36	Yes	1.00	**3.38**
		L_3 - L_4			693.03	-236.68	113	341	-282	-750	87	72	-71	-75	0.797	0.195	1.00	Yes	0.474	0.127	0.61	Yes	0.323	0.181	0.51	Yes	0.320	0.181	0.51	Yes	1.00	**2.72**
		L_4 - L_5			289.79	-335.24	-1430	1210	-586	282	-543	426	-863	1345	0.375	0.618	1.00	Yes	0.225	0.395	0.63	Yes	0.515	0.276	0.80	Yes	0.511	0.378	0.89	Yes	1.00	**6.34**
		L_5 - L_6			-----	-697.45	-84	667	-122	196	226	133	482	125	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.177	1.00	Yes	0.805	0.148	0.96	Yes	1.00	**2.60**
		L_6 - L_7			-----	-1129.99	-525	433	217	106	-68	165	125	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.920	0.038	0.96	Yes	0.910	0.082	1.00	Yes	1.00	**3.22**
		L_7 - L_8			-----	-1265.05	-3	1356	10	600	36	-3	-64	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.183	1.00	Yes	0.801	0.180	0.99	Yes	1.00	**1.72**
		L_8 - L_9			-----	-1265.08	739	-16	1145	-71	-491	-347	-23	-234	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.184	1.00	Yes	0.801	0.152	0.96	Yes	1.00	**2.84**
		L_9 - L_{10}			-----	-1095.38	4	142	727	-502	265	231	-181	-265	-----	-----	-----	-----	-----	-----	-----	-----	0.891	0.076	0.97	Yes	0.882	0.114	1.00	Yes	1.00	**4.76**
		L_{10} - L_{11}			-----	-558.14	534	-3	399	-508	97	5	94	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.097	0.96	Yes	0.850	0.141	1.00	Yes	1.00	**3.17**
		L_{11} - L_{12}			559.75	-392.67	566	-111	486	-934	94	-35	17	-147	0.725	0.273	1.00	Yes	0.435	0.180	0.62	Yes	0.604	0.101	0.71	Yes	0.598	0.247	0.85	Yes	1.00	**4.33**
		L_{12} - L_{13}			1133.41	-65.19	219	-45	-167	-505	24	28	64	13	0.894	0.097	1.00	Yes	0.572	0.058	0.63	Yes	0.061	0.089	0.16	Yes	0.061	0.090	0.16	Yes	1.00	**3.97**
		L_{13} - L_{14}			1286.78	-----	353	-444	306	-1632	10	-3	-1	-141	0.757	0.237	1.00	Yes	0.490	0.144	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.59**
		L_{14} - L_{15}			1548.90	-----	-420	-15	-1826	-300	-93	-95	-325	32	0.757	0.243	1.00	Yes	0.492	0.147	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.79**
		L_{15} - L_{16}			1708.70	-----	-205	-352	-986	-1101	-129	-53	19	-376	0.835	0.159	1.00	Yes	0.536	0.094	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.13**
		L_{16} - L_{17}			1165.03	-----	-1367	195	-421	50	-689	94	-61	-49	0.737	0.262	1.00	Yes	0.478	0.162	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.37**
		L_{17} - L_{18}			857.30	-----	-914	393	-400	-98	-279	-565	252	-30	0.747	0.249	1.00	Yes	0.478	0.151	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.34**
		L_{18} - L_{19}			276.46	-199.61	-1271	914	-194	226	-912	373	28	-35	0.423	0.571	1.00	Yes	0.286	0.364	0.66	Yes	0.363	0.209	0.58	Yes	0.359	0.381	0.75	Yes	1.00	**7.07**
		L_{19} - L_{20}			69.56	-463.08	-548	257	-100	-29	143	32	-30	-7	0.106	0.194	0.31	Yes	0.065	0.130	0.20	Yes	0.841	0.121	0.97	Yes	0.834	0.165	1.00	Yes	1.00	**3.21**
	Structure 2	L_0 - L_1			8.90	-276.35	-184	175	1144	-2950	-45	-156	-22	-75	0.011	0.626	0.64	Yes	0.006	0.405	0.42	Yes	0.397	0.411	0.81	Yes	0.395	0.600	1.00	Yes	1.00	**14.62**
		L_1 - L_2			586.58	-----	128	-136	533	-1328	-62	-10	-94	-58	0.712	0.286	1.00	Yes	0.424	0.185	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.61**
		L_2 - L_3			1039.27	-----	-69	-100	143	-1040	61	82	-14	-24	0.830	0.162	1.00	Yes	0.546	0.093	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.51**
		L_3 - L_4			1409.95	-----	31	-378	-1	-1280	-18	40	-40	-16	0.837	0.155	1.00	Yes	0.565	0.100	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.64**
		L_4 - L_5			1844.73	-----	-385	-185	-825	-1319	90	223	-67	-142	0.860	0.140	1.00	Yes	0.569	0.083	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.60**
		L_5 - L_6			1933.38	-----	-125	-297	-756	-1766	127	-17	-116	-130	0.830	0.165	1.00	Yes	0.557	0.100	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		L_6 - L_7			1944.03	-----	-376	-24	-1700	-1856	-176	42	-95	198	0.823	0.175	1.00	Yes	0.547	0.102	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.79**
		L_7 - L_8			1393.78	-57.68	-185	344	-1570	-497	-128	7	-172	-297	0.799	0.198	1.00	Yes	0.525	0.117	0.65	Yes	0.039	0.191	0.23	Yes	0.039	0.173	0.22	Yes	1.00	**2.26**
		L_8 - L_9			1053.23	-662.53	104	707	-1051	98	-6	25	-344	1291	0.737	0.263	1.00	Yes	0.496	0.169	0.67	Yes	0.549	0.141	0.70	Yes	0.545	0.142	0.69	Yes	1.00	**3.90**
		L_9 - L_{10}			619.39	-813.51	-35	863	-860	12	39	113	439	-383	0.553	0.191	0.75	Yes	0.322	0.117	0.44	Yes	0.860	0.098	0.96	Yes	0.854	0.138	1.00	Yes	1.00	**3.50**
		L_{10} - L_{11}			-----	-749.23	-567	632	-223	369	-236	173	-38	20	-----	-----	-----	-----	-----	-----	-----	-----	0.886	0.056	0.95	Yes	0.880	0.111	1.00	Yes	1.00	**3.35**
		L_{11} - L_{12}			-----	-1013.20	-521	1170	-312	439	47	12	132	281	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.118	0.96	Yes	0.831	0.159	1.00	Yes	1.00	**2.16**
		L_{12} - L_{13}			-----	-1518.09	-401	-70	-385	-606	177	-94	69	109	-----	-----	-----	-----	-----	-----	-----	-----	0.916	0.081	1.00	Yes	0.908	0.060	0.97	Yes	1.00	**2.33**
		L_{13} - L_{14}			-----	-1514.99	-847	2683	-348	1243	-84	-284	-194	-335	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.179	0.95	Yes	0.762	0.234	1.00	Yes	1.00	**1.65**
		L_{14} - L_{15}			-----	-1522.83	1382	-418	2628	-943	-392	-264	-342	-187	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.174	0.95	Yes	0.766	0.229	1.00	Yes	1.00	**1.65**
		L_{15} - L_{16}			-----	-1493.01	-804	490	-191	-268	-655	-259	-672	-550	-----	-----	-----	-----	-----	-----	-----	-----	0.900	0.092	1.00	Yes	0.893	0.080	0.98	Yes	1.00	**6.72**
		L_{16} - L_{17}			-----	-1131.44	1251	195	1382	-470	507	267	-144	-329	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.158	0.99	Yes	0.824	0.170	1.00	Yes	1.00	**3.78**
		L_{17} - L_{18}			-----	-854.25	419	329	635	-408	126	-39	-98	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.903	0.077	0.99	Yes	0.897	0.102	1.00	Yes	1.00	**2.82**
		L_{18} - L_{19}			-----	-655.11	644	199	511	-426	-9	32	135	61	-----	-----	-----	-----	-----	-----	-----	-----	0.879	0.120	1.00	Yes	0.873	0.124	1.00	Yes	1.00	**2.61**
		L_{19} - L_{20}			247.81	-657.59	541	339	322	-630	40	-23	155	-91	0.281	0.145	0.43	Yes	0.166	0.092	0.26	Yes	0.882	0.115	1.00	Yes	0.876	0.122	1.00	Yes	1.00	**3.31**
		L_{20} - L_{21}			978.22	-871.81	773	358	-248	-1097	-120	-114	-39	-32	0.790	0.176	0.97	Yes	0.520	0.101	0.63	Yes	0.835	0.130	0.97	Yes	0.829	0.163	1.00	Yes	1.00	**5.50**
		L_{21} - L_{22}			842.75	-427.75	296	237	-266	-1947	-82	-5	-36	-189	0.681	0.310	1.00	Yes	0.457	0.188	0.65	Yes	0.410	0.253	0.67	Yes	0.407	0.290	0.70	Yes	1.00	**3.10**
		L_{22} - L_{23}			849.02	-364.26	225	271	-1924	-382	35	-23	-246	188	0.686	0.313	1.00	Yes	0.460	0.190	0.65	Yes	0.349	0.255	0.61	Yes	0.346	0.286	0.64	Yes	1.00	**3.10**
		L_{23} - L_{24}			980.71	-817.74	385	650	-847	-859	49	136	715	-259	0.792	0.206	1.00	Yes	0.521	0.123	0.65	Yes	0.783	0.190	0.98	Yes	0.777	0.128	0.91	Yes	1.00	**6.02**
		L_{24} - L_{25}			230.19	-638.55	526	378	-769	-12	163	-75	-287	291	0.261	0.193	0.46	Yes	0.154	0.122	0.28	Yes	0.856	0.090	0.95	Yes	0.851	0.148	1.00	Yes	1.00	**4.90**
		L_{25} - L_{26}			191.04	-653.82	284	643	-347	49	81	211	147	-134	0.216	0.156	0.38	Yes	0.125	0.093	0.22	Yes	0.877	0.117	1.00	Yes	0.871	0.124	1.00	Yes	1.00	**4.48**
		L_{26} - L_{27}			-----	-846.33	-452	654	-40	196	-208	132	30	22	-----	-----	-----	-----	-----	-----	-----	-----	0.895	0.058	0.96	Yes	0.889	0.105	1.00	Yes	1.00	**2.41**
		L_{27} - L_{28}			-----	-1153.01	-308	1218	-137	394	186	109	191	284	-----	-----	-----	-----	-----	-----	-----	-----	0.847	0.129	0.98	Yes	0.840	0.150	1.00	Yes	1.00	**2.17**
		L_{28} - L_{29}			-----	-1532.64	-118	-132	-122	-690	265	-65	-21	-26	-----	-----	-----	-----	-----	-----	-----	-----	0.924	0.074	1.00	Yes	0.917	0.069	0.99	Yes	1.00	**2.26**
		L_{29} - L_{30}			-----	-1531.78	-904	2577	-361	937	-72	-187	-91	-179	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.157	0.94	Yes	0.771	0.225	1.00	Yes	1.00	**1.81**
		L_{30} - L_{31}			-----	-1465.09	971	-343	2929	-1012	-214	-154	-201	-84	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.182	0.93	Yes	0.737	0.256	1.00	Yes	1.00	**2.18**
		L_{31} - L_{32}			-----	-1477.13	-455	601	237	-845	-588	37	-532	64	-----	-----	-----	-----	-----	-----	-----	-----	0.899	0.099	1.00	Yes	0.891	0.085	0.98	Yes	1.00	**7.20**
		L_{32} - L_{33}			-----	-1040.69	1029	163	801	-775	-177	-126	399	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.129	0.99	Yes	0.853	0.140	1.00	Yes	1.00	**3.98**
		L_{33} - L_{34}			40.76	-725.67	407	210	442	-813	-31	-83	111	-32	0.041	0.157	0.20	Yes	0.024	0.099	0.13	Yes	0.858	0.067	0.93	Yes	0.852	0.142	1.00	Yes	1.00	**3.22**
		L_{34} - L_{35}			700.46	-766.61	750	102	185	-1218	-20	50	247	173	0.625	0.225	0.85	Yes	0.364	0.139	0.51	Yes	0.810	0.154	0.97	Yes	0.805	0.195	1.00	Yes	1.00	**4.20**
		L_{35} - L_{36}			1185.32	-454.20	481	93	131	-1101	89	-64	220	-33	0.829	0.169	1.00	Yes	0.558	0.106	0.67	Yes	0.377	0.114	0.50	Yes	0.374	0.149	0.53	Yes	1.00	**3.66**
		L_{36} - L_{37}			1414.30	-151.77	337	68	-440	-1604	-100	-4	-92	106	0.811	0.186	1.00	Yes	0.533	0.108	0.65	Yes	0.103	0.175	0.28	Yes	0.102	0.177	0.28	Yes	1.00	**2.90**
		L_{37} - L_{38}			1907.60	-----	28	-292	-1752	-1873	-27	-6	-94	-336	0.807	0.185	1.00	Yes	0.537	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		L_{38} - L_{39}			1883.28	-----	-165	-140	-1827	-1015	-49	1	-115	460	0.808	0.191	1.00	Yes	0.542	0.117	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.34**
		L_{39} - L_{40}			1768.21	-----	-147	-287	-1421	-1027	-43	-32	23	-536	0.824	0.170	1.00	Yes	0.546	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.70**
		L_{40} - L_{41}			1316.31	-----	-1161	36	-1520	-297	-500	217	-532	215	0.773	0.220	1.00	Yes	0.521	0.138	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.88**
		L_{41} - L_{42}			1009.16	-----	-1214	237	-45	-190	-112	-191	-34	-64	0.795	0.196	1.00	Yes	0.522	0.117	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.24**
		L_{42} - L_{43}			376.94	-----	-1803	605	-70	-99	-520	675	-113	-140	0.482	0.511	1.00	Yes	0.288	0.294	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.45**
		L_{43} - L_{44}			218.94	-473.74	-1569	540	-60	-17	641	187	-153	-45	0.266	0.425	0.70	Yes	0.158	0.270	0.43	Yes	0.681	0.269	0.95	Yes	0.677	0.319	1.00	Yes	1.00	**6.86**
	Structure 3	L_0 - L_1			136.59	-390.35	8	-107	577	-863	-7	-34	32	148	0.217	0.293	0.52	Yes	0.133	0.196	0.33	Yes	0.737	0.151	0.89	Yes	0.731	0.260	1.00	Yes	1.00	**5.73**
		L_1 - L_2			289.30	-----	76	-120	1026	-1725	-66	3	116	180	0.443	0.555	1.00	Yes	0.299	0.344	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.03**
		L_2 - L_3			911.52	-----	-67	-138	267	-961	33	27	123	118	0.794	0.201	1.00	Yes	0.508	0.120	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.17**
		L_3 - L_4			1296.01	-----	57	-346	117	-1182	29	51	41	5	0.819	0.178	1.00	Yes	0.532	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.86**
		L_4 - L_5			1764.49	-----	-381	-159	-911	-956	116	232	-112	-174	0.862	0.131	1.00	Yes	0.553	0.077	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.67**
		L_5 - L_6			1553.48	-----	-82	-346	-295	-1889	142	78	-97	-138	0.759	0.238	1.00	Yes	0.493	0.143	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.96**
		L_6 - L_7			1312.69	-----	-343	340	-1153	-21	-189	26	-701	805	0.772	0.226	1.00	Yes	0.500	0.140	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.48**
		L_7 - L_8			1117.02	-----	-66	151	-533	-311	-25	44	169	4	0.881	0.114	1.00	Yes	0.564	0.068	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		L_8 - L_9			233.79	-----	-1894	1331	-261	195	-794	1105	-47	45	0.303	0.695	1.00	Yes	0.182	0.449	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.98**
		L_9 - L_{10}			60.59	-541.85	-489	636	-315	128	164	128	249	115	0.078	0.212	0.30	Yes	0.046	0.128	0.18	Yes	0.833	0.090	0.93	Yes	0.826	0.168	1.00	Yes	1.00	**3.45**
		L_{10} - L_{11}			-----	-1081.76	-784	716	196	72	-212	85	148	-211	-----	-----	-----	-----	-----	-----	-----	-----	0.880	0.050	0.94	Yes	0.871	0.123	1.00	Yes	1.00	**5.26**
		L_{11} - L_{12}			-----	-1256.14	-72	1244	-40	474	-233	-401	-169	-208	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.185	1.00	Yes	0.796	0.165	0.97	Yes	1.00	**1.88**
		L_{12} - L_{13}			-----	-1233.88	588	-11	1297	-60	-458	-353	-449	-278	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.201	1.00	Yes	0.781	0.172	0.96	Yes	1.00	**1.90**
		L_{13} - L_{14}			-----	-1160.18	-132	295	301	-239	-127	198	-285	-102	-----	-----	-----	-----	-----	-----	-----	-----	0.944	0.050	1.00	Yes	0.934	0.047	0.99	Yes	1.00	**3.12**
		L_{14} - L_{15}			-----	-745.56	569	169	329	-156	141	-29	99	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.124	1.00	Yes	0.860	0.126	0.99	Yes	1.00	**2.08**
		L_{15} - L_{16}			75.27	-550.76	420	197	332	-509	-4	-46	-84	-109	0.097	0.154	0.26	Yes	0.058	0.101	0.16	Yes	0.847	0.146	1.00	Yes	0.839	0.135	0.98	Yes	1.00	**1.88**
		L_{16} - L_{17}			692.10	-394.12	471	74	-696	-419	113	-69	23	179	0.796	0.197	1.00	Yes	0.473	0.127	0.60	Yes	0.538	0.148	0.69	Yes	0.533	0.168	0.71	Yes	1.00	**3.07**
		L_{17} - L_{18}			713.20	-271.12	206	52	-626	-598	-3	18	175	-90	0.821	0.179	1.00	Yes	0.475	0.107	0.59	Yes	0.370	0.205	0.58	Yes	0.367	0.151	0.52	Yes	1.00	**3.52**
		L_{18} - L_{19}			426.27	-104.46	-810	85	170	-40	-280	464	68	-173	0.652	0.343	1.00	Yes	0.398	0.227	0.63	Yes	0.190	0.182	0.38	Yes	0.188	0.243	0.44	Yes	1.00	**3.80**
		L_{19} - L_{20}			45.24	-297.06	-1275	744	203	-323	1130	307	22	6	0.069	0.625	0.70	Yes	0.041	0.376	0.42	Yes	0.539	0.453	1.00	Yes	0.535	0.383	0.92	Yes	1.00	**14.35**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression													
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield									
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Controlling Bi-Axial Moment & Axial Value	Rating
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-280.51	-175	229	-43	70	41	13	-64	-20	-----	-----	-----	-----	-----	-----	-----	-----	0.694	0.148	0.85	Yes	0.655	0.341	1.00	Yes	1.00	**1.63**
		$U_1 - L_1$	60.37	-335.88	-200	223	53	-42	-82	6	-13	-27	0.109	0.309	0.42	Yes	0.060	0.170	0.23	Yes	0.734	0.102	0.84	Yes	0.711	0.285	1.00	Yes	1.00	**3.12**
		$U_2 - L_2$	158.47	-304.96	-218	271	136	-152	58	62	141	42	0.285	0.388	0.68	Yes	0.157	0.213	0.38	Yes	0.666	0.141	0.81	Yes	0.645	0.347	1.00	Yes	1.00	**4.62**
		$U_3 - L_3$	286.37	-264.79	-257	298	225	-263	202	141	343	102	0.515	0.481	1.00	Yes	0.283	0.264	0.55	Yes	0.580	0.182	0.77	Yes	0.560	0.381	0.95	Yes	1.00	**7.36**
		$U_4 - L_4$	-----	-350.74	65	-64	193	-194	-5	-23	470	166	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.181	0.96	Yes	0.742	0.248	1.00	Yes	1.00	**3.01**
		$U_5 - L_5$	-----	-418.82	77	-90	239	-265	-202	-62	95	63	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.129	0.89	Yes	0.723	0.269	1.00	Yes	1.00	**1.95**
		$U_6 - L_6$	-----	-463.99	84	-79	215	-237	-209	-34	809	194	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.248	1.00	Yes	0.701	0.229	0.94	Yes	1.00	**1.76**
		$U_7 - L_7$	-----	-405.16	128	-143	276	-298	-137	38	170	60	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.141	0.87	Yes	0.661	0.330	1.00	Yes	1.00	**1.36**
		$U_8 - L_8$	-----	-1195.85	-337	394	407	-494	-970	-289	1090	330	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.128	1.00	Yes	0.829	0.092	0.93	Yes	1.00	**3.66**
		$U_9 - L_9$	-----	-631.14	-399	455	-176	205	-235	-172	-249	-99	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.132	0.91	Yes	0.730	0.265	1.00	Yes	1.00	**1.99**
		$U_{10} - L_{10}$	-----	-715.29	-331	343	-123	105	-785	-636	-728	-393	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.222	1.00	Yes	0.735	0.191	0.93	Yes	1.00	**2.59**
		$U_{11} - L_{11}$	-----	-660.34	-385	488	-146	197	-377	-372	-545	-376	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.170	0.97	Yes	0.769	0.226	1.00	Yes	1.00	**2.37**
		$U_{12} - L_{12}$	-----	-531.28	-310	315	-126	121	-109	-190	-330	-237	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.150	0.92	Yes	0.729	0.269	1.00	Yes	1.00	**2.19**
		$U_{13} - L_{13}$	-----	-366.75	-232	259	-79	99	-1	-7	-44	4	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.098	0.84	Yes	0.703	0.296	1.00	Yes	1.00	**1.75**
		$U_{14} - L_{14}$	-----	-368.23	-138	158	-44	52	450	67	-36	-16	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.176	1.00	Yes	0.779	0.202	0.99	Yes	1.00	**3.48**
		$U_{15} - L_{15}$	88.84	-292.55	-63	60	269	-290	-67	-48	281	201	0.160	0.453	0.62	Yes	0.088	0.249	0.34	Yes	0.656	0.217	0.88	Yes	0.619	0.371	1.00	Yes	1.00	**4.30**
		$U_{16} - L_{16}$	-----	-306.69	23	-27	213	-226	-80	-100	1096	-53	-----	-----	-----	-----	-----	-----	-----	-----	0.691	0.305	1.00	Yes	0.649	0.289	0.94	Yes	1.00	**2.26**
		$U_{17} - L_{17}$	-----	-433.08	56	-71	219	-241	-120	-109	198	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.110	0.92	Yes	0.747	0.244	1.00	Yes	1.00	**1.82**
		$U_{18} - L_{18}$	-----	-535.25	137	-144	419	-437	-130	-115	213	-205	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.090	0.88	Yes	0.744	0.247	1.00	Yes	1.00	**2.01**
		$U_{19} - L_{19}$	-----	-633.69	163	-163	557	-537	-113	-42	251	-56	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.115	0.91	Yes	0.738	0.259	1.00	Yes	1.00	**2.31**
		$U_{20} - L_{20}$	-----	-560.25	159	-258	273	-461	22	3	530	70	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.220	1.00	Yes	0.686	0.222	0.91	Yes	1.00	**1.49**
	Structure 2	$U_0 - L_0$	-----	-662.12	-457	562	-144	187	28	5	-74	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.119	0.96	Yes	0.742	0.254	1.00	Yes	1.00	**2.27**
		$U_1 - L_1$	-----	-724.94	-479	512	-94	102	-102	23	-121	-28	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.077	0.91	Yes	0.777	0.217	1.00	Yes	1.00	**2.86**
		$U_2 - L_2$	-----	-593.71	-458	475	-82	92	-8	-1	-95	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.079	0.88	Yes	0.757	0.243	1.00	Yes	1.00	**2.51**
		$U_3 - L_3$	-----	-494.61	-223	240	-42	49	-44	-19	100	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.079	0.93	Yes	0.776	0.219	1.00	Yes	1.00	**2.17**
		$U_4 - L_4$	0.63	-344.47	-205	212	5	4	-87	-9	286	86	0.001	0.353	0.36	Yes	0.001	0.194	0.20	Yes	0.781	0.163	0.95	Yes	0.729	0.270	1.00	Yes	1.00	**2.32**
		$U_5 - L_5$	100.51	-332.50	-194	225	76	-71	-47	-34	314	189	0.181	0.378	0.56	Yes	0.099	0.208	0.31	Yes	0.751	0.210	0.97	Yes	0.704	0.287	1.00	Yes	1.00	**3.21**
		$U_6 - L_6$	269.13	-281.07	-298	311	171	-191	163	-37	361	252	0.484	0.502	0.99	Yes	0.266	0.276	0.55	Yes	0.633	0.244	0.88	Yes	0.595	0.397	1.00	Yes	1.00	**6.67**
		$U_7 - L_7$	-----	-267.48	52	-59	278	-322	37	6	998	199	-----	-----	-----	-----	-----	-----	-----	-----	0.604	0.390	1.00	Yes	0.566	0.411	0.98	Yes	1.00	**9.20**
		$U_8 - L_8$	-----	-455.59	115	-127	370	-388	-62	-112	126	-58	-----	-----	-----	-----	-----	-----	-----	-----	0.661	0.111	0.78	Yes	0.656	0.339	1.00	Yes	1.00	**2.72**
		$U_9 - L_9$	-----	-694.58	199	-199	547	-582	-105	-119	1374	169	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.200	0.98	Yes	0.744	0.247	1.00	Yes	1.00	**2.81**
		$U_{10} - L_{10}$	-----	-788.16	182	-183	549	-584	-134	-68	338	-171	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.101	0.88	Yes	0.737	0.258	1.00	Yes	1.00	**2.80**
		$U_{11} - L_{11}$	-----	-817.15	185	-183	513	-534	-162	-42	142	-176	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.098	0.93	Yes	0.764	0.236	1.00	Yes	1.00	**2.43**
		$U_{12} - L_{12}$	-----	-888.66	144	-115	520	-534	-127	32	238	-44	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.107	0.96	Yes	0.770	0.229	1.00	Yes	1.00	**2.47**
		$U_{13} - L_{13}$	-----	-680.12	215	-219	547	-541	-137	8	795	100	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.241	1.00	Yes	0.656	0.262	0.92	Yes	1.00	**1.86**
		$U_{14} - L_{14}$	-----	-1110.10	-307	283	656	-627	-639	-23	1040	656	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.183	1.00	Yes	0.736	0.116	0.86	Yes	1.00	**3.23**
		$U_{15} - L_{15}$	-----	-703.41	-672	667	-76	88	-31	61	-315	35	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.165	0.95	Yes	0.678	0.322	1.00	Yes	1.00	**3.37**
		$U_{16} - L_{16}$	-----	-701.34	-463	413	-61	33	-602	-241	-820	-248	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.183	1.00	Yes	0.752	0.197	0.95	Yes	1.00	**2.39**
		$U_{17} - L_{17}$	-----	-638.16	-541	531	-118	108	-298	-302	-482	-306	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.155	0.95	Yes	0.743	0.251	1.00	Yes	1.00	**2.13**
		$U_{18} - L_{18}$	-----	-603.86	-411	436	-113	100	68	-203	-188	-187	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.086	0.90	Yes	0.769	0.223	1.00	Yes	1.00	**1.92**
		$U_{19} - L_{19}$	-----	-477.72	-286	289	-73	71	-122	-150	-176	-100	-----	-----	-----	-----	-----	-----	-----	-----	0.719	0.105	0.83	Yes	0.713	0.278	1.00	Yes	1.00	**2.34**
		$U_{20} - L_{20}$	-----	-385.55	-216	228	-42	40	-20	-100	-202	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.131	0.93	Yes	0.739	0.260	1.00	Yes	1.00	**2.44**
		$U_{21} - L_{21}$	-----	-315.85	-239	257	-29	30	43	3	-84	-16	-----	-----	-----	-----	-----	-----	-----	-----	0.714	0.116	0.83	Yes	0.668	0.328	1.00	Yes	1.00	**2.75**
		$U_{22} - L_{22}$	-----	-285.95	-169	198	129	-145	945	267	1047	298	-----	-----	-----	-----	-----	-----	-----	-----	0.644	0.353	1.00	Yes	0.605	0.254	0.86	Yes	1.00	**10.41**
		$U_{23} - L_{23}$	-----	-302.77	14	-16	259	-274	-99	-3	233	158	-----	-----	-----	-----	-----	-----	-----	-----	0.684	0.172	0.86	Yes	0.641	0.350	1.00	Yes	1.00	**3.39**
		$U_{24} - L_{24}$	-----	-340.39	43	-48	198	-215	-70	-7	1003	95	-----	-----	-----	-----	-----	-----	-----	-----	0.698	0.300	1.00	Yes	0.652	0.246	0.90	Yes	1.00	**2.06**
		$U_{25} - L_{25}$	-----	-469.34	53	-49	309	-305	-92	10	383	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.706	0.120	0.83	Yes	0.701	0.297	1.00	Yes	1.00	**2.24**
		$U_{26} - L_{26}$	-----	-592.73	81	-75	428	-466	-136	26	446	22	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.122	0.92	Yes	0.755	0.238	1.00	Yes	1.00	**2.00**
		$U_{27} - L_{27}$	-----	-631.42	81	-78	562	-566	-187	53	251	157	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.094	0.88	Yes	0.735	0.263	1.00	Yes	1.00	**2.18**
		$U_{28} - L_{28}$	-----	-683.56	54	-34	477	-454	-231	74	1116	157	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.206	1.00	Yes	0.733	0.202	0.94	Yes	1.00	**2.12**
		$U_{29} - L_{29}$	-----	-695.24	101	-112	665	-654	-174	36	483	104	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.218	1.00	Yes	0.670	0.318	0.99	Yes	1.00	**2.81**
		$U_{30} - L_{30}$	-----	-1154.52	-704	638	718	-709	-1008	225	1378	114	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.133	1.00	Yes	0.780	0.129	0.91	Yes	1.00	**5.01**
		$U_{31} - L_{31}$	-----	-737.32	-585	581	-98	98	-48	34	-314	-20	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.163	0.99	Yes	0.711	0.280	1.00	Yes	1.00	**2.91**
		$U_{32} - L_{32}$	-----	-837.76	-440	399	-79	53	-482	-234	-687	-264	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.190	1.00	Yes	0.726	0.189	0.92	Yes	1.00	**2.59**
		$U_{33} - L_{33}$	-----	-841.24	-412	428	-119	105	-33	-273	-433	-345	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.145	1.00	Yes	0.793	0.192	0.99	Yes	1.00	**2.56**
		$U_{34} - L_{34}$	-----	-810.61	-507	544	-125	111	-223	-391	-324	-336	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.127	0.93	Yes	0.758	0.240	1.00	Yes	1.00	**3.41**
		$U_{35} - L_{35}$	-----	-705.06	-516	554	-148	144	-32	-101	-121	-94	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.071	0.86	Yes	0.756	0.235	1.00	Yes	1.00	**3.12**
		$U_{36} - L_{36}$	-----	-474.20	-340	358	-82	92	105	35	89	71	-----	-----	-----	-----	-----	-----	-----	-----	0.688	0.101	0.79	Yes	0.683	0.313	1.00	Yes	1.00	**2.59**
		$U_{37} - L_{37}$	-----	-258.74	-296	349	-42	50	657	159	74	31	-----	-----	-----	-----	-----	-----	-----	-----	0.584	0.326	0.92	Yes	0.547	0.446	1.00	Yes	1.00	**8.85**
		$U_{38} - L_{38}$	300.63	-177.52	-230	254	258	-255	218	119	432	374	0.541	0.454	1.00	Yes	0.297	0.250	0.55	Yes	0.399	0.190	0.59	Yes	0.376	0.329	0.71	Yes	1.00	**8.38**
		$U_{39} - L_{39}$	93.72	-277.49	-81	80	158	-184	61	0	1242	51	0.169	0.595	0.77	Yes	0.093	0.327	0.42	Yes	0.627	0.364	1.00	Yes	0.587	0.235	0.83	Yes	1.00	**2.98**
		$U_{40} - L_{40}$	33.39	-338.89	-30	23	214	-217	14	-22	304	-81	0.060	0.366	0.43	Yes	0.033	0.201	0.24	Yes	0.769	0.122	0.90	Yes	0.717	0.277	1.00	Yes	1.00	**2.41**
		$U_{41} - L_{41}$	-----	-485.35	12	-16	239	-253	10	-20	205	-121	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.086	0.92	Yes	0.761	0.230	1.00	Yes	1.00	**2.22**
		$U_{42} - L_{42}$	-----	-586.55	34	-43	471	-485	12	-27	270	-168	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.076	0.87	Yes	0.747	0.248	1.00	Yes	1.00	**2.41**
		$U_{43} - L_{43}$	-----	-699.67	52	-66	575	-573	-58	-58	332	91	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.106	0.91	Yes	0.750	0.244	1.00	Yes	1.00	**2.65**
		$U_{44} - L_{44}$	-----	-638.33	109	-120	283	-457	-162	-27	940	159	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.233	1.00	Yes	0.684	0.194	0.88	Yes	1.00	**2.00**
	Structure 3	$U_0 - L_0$	-----	-612.23	-462	535	-135	181	208	27	-59	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.147	0.99	Yes	0.735	0.256	1.00	Yes	1.00	**2.58**
		$U_1 - L_1$	-----	-667.80	-449	475	-104	116	-21	128	-121	-3	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.081	0.92	Yes	0.777	0.220	1.00	Yes	1.00	**3.13**
		$U_2 - L_2$	-----	-545.75	-406	425	-101	108	21	26	-143	-44	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.089	0.89	Yes	0.759	0.240	1.00	Yes	1.00	**2.63**
		$U_3 - L_3$	-----	-450.22	-197	219	-40	53	0	-21	49	-62	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.084	0.93	Yes	0.777	0.223	1.00	Yes	1.00	**2.24**
		$U_4 - L_4$	-----	-328.45	-218	231	-11	17	-41	15	231	50	-----	-----	-----	-----	-----	-----	-----	-----	0.740	0.147	0.89	Yes	0.695	0.296	1.00	Yes	1.00	**2.67**
		$U_5 - L_5$	60.01	-307.18	-246	267	47	-44	-4	19	229	155	0.108	0.408	0.52	Yes	0.059	0.224	0.29	Yes	0.688	0.184	0.88	Yes	0.650	0.341	1.00	Yes	1.00	**3.51**
		$U_6 - L_6$	-----	-283.62	36	-38	88	-94	1156	390	381	61	-----	-----	-----	-----	-----	-----	-----	-----	0.633	0.360	1.00	Yes	0.600	0.120	0.73	Yes	1.00	**2.58**
		$U_7 - L_7$	-----	-360.44	69	-81	247	-268	-8	-83	86	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.729	0.107	0.84	Yes	0.690	0.306	1.00	Yes	1.00	**2.14**
		$U_8 - L_8$	-----	-510.81	111	-108	307	-317	-61	-120	1117	216	-----	-----	-----	-----	-----	-----	-----	-----	0.738	0.255	1.00	Yes	0.701	0.270	0.98	Yes	1.00	**2.21**
		$U_9 - L_9$	-----	-652.90	130	-168	416	-513	-180	-136	240	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.121	0.91	Yes	0.760	0.238	1.00	Yes	1.00	**2.42**
		$U_{10} - L_{10}$	-----	-780.38	134	-109	393	-432	-13	40	334	-9	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.088	0.90	Yes	0.770	0.224	1.00	Yes	1.00	**2.80**
		$U_{11} - L_{11}$	-----	-644.32	168	-193	429	-488	-111	-11	362	135	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.147	0.92	Yes	0.728	0.272	1.00	Yes	1.00	**1.96**
		$U_{12} - L_{12}$	-----	-1150.26	-252	267	441	-579	-677	-108	1137	526	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.164	1.00	Yes	0.797	0.108	0.91	Yes	1.00	**3.49**
		$U_{13} - L_{13}$	-----	-443.79	-292	315	-70	81	-28	45	-209	-2	-----	-----	-----	-----	-----	-----	-----	-----	0.742	0.144	0.89	Yes	0.685	0.310	1.00	Yes	1.00	**2.31**
		$U_{14} - L_{14}$	-----	-512.09	-229	246	-46	25	-718	-479	-723	-326	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.216	1.00	Yes	0.734	0.215	0.95	Yes	1.00	**2.87**
		$U_{15} - L_{15}$	-----	-438.38	-228	238	-51	50	-311	-269	-456	-298	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.191	0.99	Yes	0.756	0.242	1.00	Yes	1.00	**2.23**
		$U_{16} - L_{16}$	-----	-349.76	-190	196	-52	52	172	-41	-114	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.120	0.89	Yes	0.740	0.251	1.00	Yes	1.00	**3.06**
		$U_{17} - L_{17}$	308.82	-211.89	-268	310	203	-222	-25	99	-46	139	0.555	0.436	1.00	Yes	0.305	0.240	0.55	Yes	0.464	0.131	0.60	Yes	0.448	0.396	0.85	Yes	1.00	**7.88**
		$U_{18} - L_{18}$	142.54	-249.18	-131	147	153	-197	-149	22	1609	372	0.256	0.718	0.98	Yes	0.141	0.395	0.54	Yes	0.545	0.451	1.00	Yes	0.527	0.252	0.78	Yes	1.00	**3.45**
		$U_{19} - L_{19}$	84.05	-312.29	-87	72	260	-242	-91	20	252	51	0.151	0.405	0.56	Yes	0.083	0.223	0.31	Yes	0.682	0.143	0.83	Yes	0.661	0.332	1.00	Yes	1.00	**2.74**
		$U_{20} - L_{20}$	11.01	-308.95	13	-15	61	-170	-74	-24	676	217	0.020	0.413	0.44	Yes	0.012	0.227	0.24	Yes	0.690	0.306	1.00	Yes	0.654	0.217	0.88	Yes	1.00	**1.60**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Diagonals	Structure 1	$U_0 - L_1$	629.89	-72.33	-127	74	-4	-11	-35	-93	17	49	0.826	0.171	1.00	Yes	0.499	0.095	0.60	Yes	0.124	0.097	0.23	Yes	0.112	0.148	0.26	Yes	1.00	**3.56**
		$U_1 - L_2$	463.96	-169.84	-90	9	32	-25	-163	-120	34	20	0.834	0.163	1.00	Yes	0.459	0.090	0.55	Yes	0.390	0.150	0.54	Yes	0.359	0.116	0.48	Yes	1.00	**3.85**
		$U_2 - L_3$	420.89	-107.22	-156	2	-34	-47	-121	-138	83	-2	0.757	0.239	1.00	Yes	0.416	0.131	0.55	Yes	0.247	0.207	0.46	Yes	0.227	0.199	0.43	Yes	1.00	**6.44**
		$U_3 - L_4$	-----	-322.24	55	-6	-70	-113	125	127	-155	-378	-----	-----	-----	-----	-----	-----	-----	-----	0.737	0.259	1.00	Yes	0.682	0.144	0.83	Yes	1.00	**4.20**
		$U_4 - L_4$	534.82	-----	-7	67	-105	0	47	4	-417	-368	0.791	0.204	1.00	Yes	0.435	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.50**
		$U_4 - L_5$	620.84	-----	-152	257	-49	101	-637	-181	33	-33	0.734	0.262	1.00	Yes	0.404	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.05**
		$U_5 - L_6$	665.24	-----	-285	285	-95	102	-114	-230	153	48	0.786	0.204	1.00	Yes	0.433	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.17**
		$U_6 - L_7$	645.78	-----	-55	357	-12	133	36	-13	170	99	0.763	0.235	1.00	Yes	0.420	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.38**
		$U_8 - L_8$	913.91	-----	28	421	21	144	581	340	345	98	0.731	0.262	1.00	Yes	0.453	0.147	0.60	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.13**
		$U_9 - L_{10}$	970.69	-----	-268	309	-78	89	628	546	172	131	0.776	0.218	1.00	Yes	0.481	0.123	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.08**
		$U_{10} - L_{11}$	969.17	-----	-186	255	-84	96	398	463	31	146	0.819	0.179	1.00	Yes	0.507	0.101	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.81**
		$U_{11} - L_{12}$	844.33	-----	-231	153	-91	39	355	365	41	103	0.835	0.162	1.00	Yes	0.459	0.089	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.62**
		$U_{12} - L_{13}$	648.56	-----	-203	173	-85	63	163	73	-13	-34	0.791	0.209	1.00	Yes	0.497	0.117	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.23**
		$U_{13} - L_{14}$	459.19	-----	-106	30	-32	11	26	-59	-65	-112	0.826	0.169	1.00	Yes	0.454	0.093	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.19**
		$U_{15} - L_{14}$	147.14	-31.72	-1	-30	-187	-223	-129	-135	-1524	-660	0.265	0.726	1.00	Yes	0.146	0.400	0.55	Yes	0.074	0.702	0.78	Yes	0.067	0.285	0.36	Yes	1.00	**12.62**
		$U_{16} - L_{15}$	299.27	-13.29	-120	72	-11	-6	-1063	-212	-83	-81	0.538	0.460	1.00	Yes	0.296	0.253	0.55	Yes	0.032	0.330	0.37	Yes	0.028	0.153	0.19	Yes	1.00	**2.52**
		$U_{17} - L_{16}$	492.87	-----	-139	90	-32	12	-579	-538	-105	-126	0.723	0.276	1.00	Yes	0.398	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.87**
		$U_{18} - L_{17}$	585.69	-----	-304	245	-109	73	-746	-525	-106	-112	0.692	0.307	1.00	Yes	0.381	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.01**
		$U_{19} - L_{18}$	643.33	-----	-338	249	-130	85	-759	-535	-60	-101	0.697	0.298	1.00	Yes	0.383	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.93**
		$U_{20} - L_{19}$	674.10	-----	-170	227	-94	91	-901	-378	-87	-35	0.730	0.264	1.00	Yes	0.402	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.12**
	Structure 2	$U_0 - L_1$	793.12	-----	-422	390	-96	82	-23	-69	-55	-30	0.785	0.206	1.00	Yes	0.432	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.97**
		$U_1 - L_2$	800.55	-----	-394	327	-72	51	-128	-43	-81	-6	0.792	0.202	1.00	Yes	0.436	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.04**
		$U_2 - L_3$	658.00	-----	-348	277	-62	46	-21	-18	1	111	0.778	0.217	1.00	Yes	0.428	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.57**
		$U_3 - L_4$	593.28	-----	-191	137	-24	4	-39	-46	135	75	0.791	0.202	1.00	Yes	0.435	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.48**
		$U_4 - L_5$	431.48	-87.79	-149	103	17	-25	-113	-12	106	-95	0.776	0.224	1.00	Yes	0.427	0.123	0.55	Yes	0.217	0.092	0.31	Yes	0.186	0.191	0.38	Yes	1.00	**2.99**
		$U_5 - L_6$	424.91	-219.69	-138	60	66	-64	-72	2	11	-173	0.764	0.227	1.00	Yes	0.420	0.125	0.55	Yes	0.519	0.179	0.70	Yes	0.465	0.177	0.65	Yes	1.00	**4.24**
		$U_6 - L_7$	-----	-388.98	9	-31	31	-110	-107	-202	127	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.166	1.00	Yes	0.745	0.126	0.88	Yes	1.00	**5.03**
		$U_8 - L_7$	479.35	-----	-162	120	-96	33	-469	-381	-1181	-801	0.611	0.386	1.00	Yes	0.385	0.224	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.46**
		$U_8 - L_8$	611.83	-----	-311	196	-126	91	-1077	-458	-158	-170	0.663	0.336	1.00	Yes	0.364	0.185	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.05**
		$U_{10} - L_9$	757.62	-----	-319	202	-111	87	-614	-666	-110	-140	0.750	0.248	1.00	Yes	0.412	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.24**
		$U_{11} - L_{10}$	829.00	-----	-337	267	-127	118	-722	-546	-31	-106	0.755	0.242	1.00	Yes	0.415	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.08**
		$U_{12} - L_{11}$	874.34	-----	-343	365	-138	151	-334	-262	55	-19	0.796	0.200	1.00	Yes	0.438	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.09**
		$U_{13} - L_{12}$	743.25	-----	-428	380	-143	146	-417	-239	375	157	0.735	0.261	1.00	Yes	0.404	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.80**
		$U_{14} - L_{13}$	710.30	-----	-202	441	4	147	-88	-243	585	217	0.703	0.292	1.00	Yes	0.386	0.161	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.34**
		$U_{14} - L_{15}$	583.63	-----	-112	393	60	38	465	44	244	-62	0.690	0.307	1.00	Yes	0.379	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.40**
		$U_{15} - L_{16}$	633.12	-----	-376	360	-30	38	211	132	-66	-19	0.749	0.251	1.00	Yes	0.412	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.71**
		$U_{16} - L_{17}$	705.93	-----	-305	373	-38	80	41	242	-219	101	0.765	0.231	1.00	Yes	0.421	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.19**
		$U_{17} - L_{18}$	652.07	-----	-285	299	-47	80	186	329	-47	177	0.771	0.229	1.00	Yes	0.424	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.99**
		$U_{18} - L_{19}$	619.82	-----	-304	308	-19	76	500	244	86	120	0.733	0.265	1.00	Yes	0.403	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.02**
		$U_{19} - L_{20}$	600.41	-----	-208	174	-10	40	237	214	15	87	0.766	0.234	1.00	Yes	0.421	0.132	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.89**
		$U_{20} - L_{21}$	440.41	-----	-133	113	-11	24	129	50	-24	32	0.792	0.208	1.00	Yes	0.436	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.71**
		$U_{21} - L_{22}$	412.89	-23.34	-133	57	-45	-51	287	104	212	-43	0.743	0.254	1.00	Yes	0.408	0.140	0.55	Yes	0.055	0.157	0.22	Yes	0.049	0.171	0.22	Yes	1.00	**6.43**
		$U_{23} - L_{22}$	353.51	-125.99	-126	41	-24	-70	-689	-336	-579	-165	0.636	0.361	1.00	Yes	0.350	0.198	0.55	Yes	0.300	0.328	0.63	Yes	0.267	0.161	0.43	Yes	1.00	**6.54**
		$U_{24} - L_{23}$	333.71	-----	-110	85	-26	19	-880	-168	-285	-168	0.600	0.395	1.00	Yes	0.330	0.217	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.31**
		$U_{25} - L_{24}$	549.45	-----	-193	161	-54	53	-607	-598	-327	-200	0.701	0.297	1.00	Yes	0.385	0.169	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.51**
		$U_{26} - L_{25}$	616.62	-----	-270	252	-60	76	-623	-423	20	-28	0.729	0.266	1.00	Yes	0.401	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.49**
		$U_{27} - L_{26}$	651.41	-----	-281	291	-39	81	-325	-241	261	119	0.770	0.224	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.05**
		$U_{28} - L_{27}$	648.51	-----	-298	354	-40	80	-662	-106	275	159	0.702	0.290	1.00	Yes	0.386	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.00**
		$U_{29} - L_{28}$	605.81	-----	-351	338	-53	61	-141	-241	453	236	0.716	0.281	1.00	Yes	0.394	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.12**
		$U_{30} - L_{29}$	612.91	-----	-154	388	29	62	-162	-70	285	156	0.725	0.272	1.00	Yes	0.399	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.90**
		$U_{30} - L_{31}$	703.11	-----	-172	486	33	60	515	78	282	-22	0.696	0.302	1.00	Yes	0.383	0.166	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		$U_{31} - L_{32}$	724.85	-----	-413	383	-63	71	226	136	-45	18	0.753	0.241	1.00	Yes	0.414	0.124	0.54	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.57**
		$U_{32} - L_{33}$	871.93	-----	-339	362	-55	97	95	326	-184	131	0.794	0.198	1.00	Yes	0.437	0.109	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.50**
		$U_{33} - L_{34}$	824.32	-----	-369	362	-70	91	606	441	18	219	0.751	0.239	1.00	Yes	0.413	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.70**
		$U_{34} - L_{35}$	809.68	-----	-328	227	-87	73	263	205	79	25	0.801	0.191	1.00	Yes	0.441	0.105	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.98**
		$U_{35} - L_{36}$	735.94	-----	-354	244	-100	72	125	45	-1	-53	0.797	0.202	1.00	Yes	0.438	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.86**
		$U_{36} - L_{37}$	606.40	-----	-201	172	-48	44	226	99	-54	-107	0.773	0.226	1.00	Yes	0.487	0.127	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.78**
		$U_{38} - L_{37}$	-----	-364.98	8	-23	37	-92	-151	-128	-359	-92	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.208	1.00	Yes	0.699	0.104	0.81	Yes	1.00	**3.89**
		$U_{39} - L_{38}$	254.81	-199.07	-96	24	60	-57	-1444	-252	-32	-16	0.458	0.541	1.00	Yes	0.252	0.298	0.55	Yes	0.474	0.497	0.98	Yes	0.421	0.123	0.55	Yes	1.00	**3.79**
		$U_{40} - L_{39}$	370.09	-107.48	-137	87	26	-28	-498	-547	-37	-35	0.666	0.333	1.00	Yes	0.366	0.183	0.55	Yes	0.257	0.281	0.54	Yes	0.227	0.175	0.41	Yes	1.00	**2.90**
		$U_{41} - L_{40}$	528.20	-----	-170	119	-8	-6	-636	-411	-71	-60	0.704	0.289	1.00	Yes	0.387	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.20**
		$U_{42} - L_{41}$	586.76	-----	-311	252	-34	19	-686	-479	-46	-45	0.694	0.300	1.00	Yes	0.382	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.25**
		$U_{43} - L_{42}$	716.71	-----	-385	301	-50	31	-737	-542	12	-30	0.709	0.289	1.00	Yes	0.390	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.42**
		$U_{44} - L_{43}$	728.33	-----	-198	285	-87	70	-957	-303	82	-19	0.721	0.275	1.00	Yes	0.396	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.52**
	Structure 3	$U_0 - L_1$	699.56	-----	-421	338	-108	90	29	-132	-65	-53	0.758	0.237	1.00	Yes	0.417	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		$U_1 - L_2$	726.08	-----	-342	268	-92	60	-175	-74	-127	-45	0.786	0.204	1.00	Yes	0.433	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.25**
		$U_2 - L_3$	663.78	-----	-352	270	-88	54	-16	-5	-47	80	0.785	0.214	1.00	Yes	0.432	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.07**
		$U_3 - L_4$	554.67	-----	-160	111	-24	5	2	-30	76	48	0.813	0.180	1.00	Yes	0.447	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.70**
		$U_4 - L_5$	432.55	-50.08	-149	103	-2	-14	-95	-54	51	-107	0.778	0.221	1.00	Yes	0.428	0.121	0.55	Yes	0.119	0.091	0.21	Yes	0.106	0.190	0.30	Yes	1.00	**3.42**
		$U_5 - L_6$	377.37	-20.71	-2	-25	-203	-134	-59	-194	-173	-182	0.679	0.315	1.00	Yes	0.373	0.173	0.55	Yes	0.049	0.278	0.33	Yes	0.044	0.259	0.31	Yes	1.00	**9.85**
		$U_7 - L_6$	393.28	-----	-38	32	-106	-10	-156	-206	-512	-399	0.707	0.283	1.00	Yes	0.389	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.09**
		$U_8 - L_7$	536.68	-----	-182	141	-70	49	-953	-374	-198	-183	0.654	0.345	1.00	Yes	0.412	0.199	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.08**
		$U_8 - L_8$	790.00	-----	-233	126	-80	29	-686	-717	-169	-205	0.782	0.215	1.00	Yes	0.430	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.43**
		$U_{10} - L_9$	949.81	-----	-204	231	-75	68	-628	-542	-89	-139	0.802	0.189	1.00	Yes	0.497	0.107	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.73**
		$U_{11} - L_{10}$	999.26	-----	-283	308	-95	86	-480	-357	54	-20	0.799	0.198	1.00	Yes	0.495	0.112	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.86**
		$U_{12} - L_{11}$	977.71	-----	-15	423	-3	129	-231	-136	217	144	0.782	0.218	1.00	Yes	0.484	0.122	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.08**
		$U_{12} - L_{13}$	623.63	-----	-19	366	38	84	260	10	199	-27	0.737	0.256	1.00	Yes	0.406	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.36**
		$U_{13} - L_{14}$	670.93	-----	-274	304	-51	66	172	154	-96	21	0.793	0.205	1.00	Yes	0.436	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.23**
		$U_{14} - L_{15}$	669.22	-----	-133	273	-22	67	108	253	-59	75	0.791	0.202	1.00	Yes	0.435	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.68**
		$U_{15} - L_{16}$	568.63	-----	7	78	-113	8	130	213	45	150	0.834	0.164	1.00	Yes	0.459	0.090	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.96**
		$U_{17} - L_{16}$	-----	-272.32	56	8	-93	-148	521	317	-607	-280	-----	-----	-----	-----	-----	-----	-----	-----	0.623	0.373	1.00	Yes	0.576	0.190	0.77	Yes	1.00	**6.31**
		$U_{18} - L_{17}$	-----	-242.06	3	-11	4	-45	12	18	-1624	-107	-----	-----	-----	-----	-----	-----	-----	-----	0.557	0.440	1.00	Yes	0.512	0.057	0.57	Yes	1.00	**4.91**
		$U_{19} - L_{18}$	382.06	-183.63	-102	21	36	-24	-614	-558	248	194	0.687	0.308	1.00	Yes	0.378	0.170	0.55	Yes	0.421	0.318	0.74	Yes	0.389	0.131	0.52	Yes	1.00	**2.92**
		$U_{20} - L_{19}$	324.96	-403.78	-107	54	-25	-28	-459	-459	552	539	0.426	0.264	0.70	Yes	0.257	0.145	0.41	Yes	0.690	0.301	1.00	Yes	0.623	0.125	0.75	Yes	1.00	**7.29**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

				Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression										
		Vehicle	Pedestrian	Max.	Max.	Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
DL Factor:		1.300	1.300	Tension	Comp.	Start	End	Start	End	Start	End	Start	End																		
LL Factor:		2.167	1.625	(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
Center Truss - Upper Chord	Structure 1	$U_0 - U_1$		108.75	-597.39	-250	223	168	-797	-27	-63	357	-456	0.125	0.267	0.40	Yes	0.086	0.182	0.27	Yes	0.813	0.172	0.99	Yes	0.806	0.189	1.00	Yes	1.00	**7.16**
		$U_1 - U_2$		131.40	-576.92	-40	174	-211	-632	-49	41	258	-167	0.151	0.194	0.35	Yes	0.103	0.133	0.24	Yes	0.785	0.208	1	Yes	0.778	0.150	0.93	Yes	1.00	**3.67**
		$U_2 - U_3$		285.87	-652.69	-40	393	-380	-322	-60	-89	384	-138	0.328	0.158	0.49	Yes	0.221	0.104	0.33	Yes	0.888	0.104	1	Yes	0.880	0.093	0.98	Yes	1.00	**3.99**
		$U_3 - U_4$		370.40	-551.54	124	297	-322	-763	-116	-96	19	-171	0.425	0.210	0.64	Yes	0.291	0.144	0.44	Yes	0.750	0.245	1	Yes	0.744	0.181	0.93	Yes	1.00	**3.20**
		$U_4 - U_5$		432.23	-586.57	135	345	-843	-156	-118	47	-101	-192	0.495	0.233	0.73	Yes	0.340	0.160	0.50	Yes	0.798	0.199	1	Yes	0.791	0.200	1.00	Yes	1.00	**3.89**
		$U_5 - U_6$		241.62	-490.94	-172	846	-487	138	-88	-269	53	-851	0.277	0.345	0.63	Yes	0.187	0.228	0.42	Yes	0.668	0.326	1	Yes	0.662	0.201	0.87	Yes	1.00	**5.77**
		$U_6 - U_7$		884.55	-----	348	215	-469	8	-353	144	-101	-106	0.846	0.148	1.00	Yes	0.591	0.102	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.29**
		$U_7 - U_8$		970.52	-----	-460	1874	-62	684	-360	295	-243	174	0.672	0.321	1.00	Yes	0.469	0.219	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.82**
		$U_8 - U_9$		801.77	-----	1029	-61	1696	-868	-103	100	142	428	0.657	0.337	1.00	Yes	0.449	0.229	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.09**
		$U_9 - U_{10}$		720.19	-57.60	256	346	199	-569	69	306	425	536	0.781	0.214	1.00	Yes	0.529	0.143	0.68	Yes	0.074	0.248	0.33	Yes	0.074	0.127	0.21	Yes	1.00	**6.98**
		$U_{10} - U_{11}$		288.61	-610.84	315	-5	280	-962	191	54	528	51	0.313	0.300	0.62	Yes	0.209	0.194	0.41	Yes	0.787	0.208	1	Yes	0.779	0.216	1.00	Yes	1.00	**5.02**
		$U_{11} - U_{12}$		-----	-890.40	202	-95	-47	-727	141	47	407	210	-----	-----	-----	-----	-----	-----	-----	-----	0.843	0.148	1	Yes	0.835	0.121	0.96	Yes	1.00	**3.23**
		$U_{12} - U_{13}$		-----	-1307.59	2	-151	-175	-607	219	-25	369	-190	-----	-----	-----	-----	-----	-----	-----	-----	0.884	0.116	1	Yes	0.873	0.084	0.96	Yes	1.00	**3.52**
		$U_{13} - U_{14}$		-----	-1358.82	-112	-357	-433	-1673	151	60	178	-5	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.211	1	Yes	0.779	0.185	0.97	Yes	1.00	**2.56**
		$U_{14} - U_{15}$		-----	-1351.96	-253	-187	-1568	-582	182	-56	266	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.215	1	Yes	0.775	0.173	0.95	Yes	1.00	**2.54**
		$U_{15} - U_{16}$		-----	-1459.22	-60	-414	-448	-987	19	-62	186	-553	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.147	1	Yes	0.837	0.109	0.95	Yes	1.00	**3.00**
		$U_{16} - U_{17}$		-----	-1416.74	-314	-186	-1268	-457	48	-171	178	-236	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.171	1	Yes	0.812	0.140	0.96	Yes	1.00	**3.21**
		$U_{17} - U_{18}$		-----	-1077.80	-620	16	-164	-109	-140	-417	-151	-181	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.139	1	Yes	0.843	0.101	0.95	Yes	1.00	**3.14**
		$U_{18} - U_{19}$		-----	-654.56	-577	27	-419	-36	-227	-295	-1083	-494	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.254	1	Yes	0.736	0.116	0.86	Yes	1.00	**2.59**
		$U_{19} - U_{20}$		-----	-632.43	-1360	918	-120	-172	-785	-365	9	37	-----	-----	-----	-----	-----	-----	-----	-----	0.718	0.279	1	Yes	0.712	0.274	0.99	Yes	1.00	**10.87**
	Structure 2	$U_0 - U_1$		-----	-653.06	161	-49	-26	-1309	105	191	297	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.198	0.98	Yes	0.771	0.222	1.00	Yes	1.00	**5.84**
		$U_1 - U_2$		-----	-809.20	-109	-102	-92	-841	347	684	285	-116	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.204	1	Yes	0.781	0.128	0.91	Yes	1.00	**2.96**
		$U_2 - U_3$		-----	-1179.57	-85	-165	-218	-1115	633	-10	150	20	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.152	1	Yes	0.837	0.114	0.96	Yes	1.00	**3.08**
		$U_3 - U_4$		-----	-1445.61	-341	-234	-912	-1128	97	-347	434	341	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.165	1	Yes	0.823	0.101	0.93	Yes	1.00	**2.91**
		$U_4 - U_5$		-----	-1550.65	-335	-261	-1006	-1462	-111	-391	582	32	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.190	1	Yes	0.796	0.121	0.92	Yes	1.00	**2.79**
		$U_5 - U_6$		-----	-1658.92	-318	135	-1210	-652	-165	-337	168	-283	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.137	1	Yes	0.852	0.100	0.96	Yes	1.00	**3.08**
		$U_6 - U_7$		-----	-1373.53	-215	-31	-857	-1496	-113	-277	-5	-406	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.204	1	Yes	0.782	0.133	0.92	Yes	1.00	**2.37**
		$U_7 - U_8$		-----	-1386.48	-122	-151	-1594	-748	-209	-233	-146	-340	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.204	1	Yes	0.789	0.142	0.94	Yes	1.00	**2.42**
		$U_8 - U_9$		-----	-1262.86	-279	181	-806	-603	-159	-101	112	-481	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.129	1	Yes	0.857	0.086	0.95	Yes	1.00	**2.67**
		$U_9 - U_{10}$		214.25	-956.14	-42	367	-1358	-118	-196	-42	141	-132	0.157	0.187	0.35	Yes	0.106	0.127	0.24	Yes	0.830	0.161	1	Yes	0.825	0.165	1.00	Yes	1.00	**2.70**
		$U_{10} - U_{11}$		731.47	-836.82	247	509	-980	-119	-202	-38	-221	-385	0.618	0.185	0.81	Yes	0.420	0.121	0.55	Yes	0.837	0.159	1	Yes	0.832	0.138	0.97	Yes	1.00	**4.32**
		$U_{11} - U_{12}$		812.19	-----	-1318	1103	-143	222	-969	-827	-293	-261	0.686	0.304	1.00	Yes	0.461	0.203	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.17**
		$U_{12} - U_{13}$		1248.09	-----	418	57	70	-575	-465	5	-795	-518	0.843	0.148	1.00	Yes	0.601	0.103	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.64**
		$U_{13} - U_{14}$		1248.66	-----	-1192	3766	-339	1646	-258	116	-457	-25	0.614	0.380	1.00	Yes	0.435	0.249	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.67**
		$U_{14} - U_{15}$		1231.20	-----	1883	215	3658	-955	-696	-277	99	741	0.605	0.389	1.00	Yes	0.429	0.255	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		$U_{15} - U_{16}$		1304.36	-----	209	835	-271	-891	-386	108	727	1232	0.789	0.205	1.00	Yes	0.561	0.141	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.83**
		$U_{16} - U_{17}$		1105.71	-----	654	530	676	-887	79	-5	686	497	0.815	0.183	1.00	Yes	0.542	0.121	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.52**
		$U_{17} - U_{18}$		782.58	-----	437	463	634	-1085	-78	-38	203	185	0.786	0.214	1.00	Yes	0.523	0.142	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.48**
		$U_{18} - U_{19}$		804.17	-528.43	598	513	377	-871	-218	-70	268	-183	0.807	0.187	1.00	Yes	0.530	0.119	0.65	Yes	0.628	0.173	0.81	Yes	0.624	0.148	0.78	Yes	1.00	**5.46**
		$U_{19} - U_{20}$		542.61	-760.28	427	326	-275	-715	-160	65	385	246	0.509	0.166	0.68	Yes	0.337	0.109	0.45	Yes	0.844	0.155	1	Yes	0.839	0.115	0.96	Yes	1.00	**4.14**
		$U_{20} - U_{21}$		489.12	-943.12	253	283	-196	-711	6	38	269	-247	0.379	0.132	0.52	Yes	0.266	0.086	0.36	Yes	0.867	0.124	1	Yes	0.861	0.103	0.97	Yes	1.00	**4.12**
		$U_{21} - U_{22}$		273.20	-834.45	100	110	-517	-1358	-34	48	76	-97	0.212	0.207	0.42	Yes	0.150	0.138	0.29	Yes	0.767	0.232	1	Yes	0.762	0.197	0.96	Yes	1.00	**2.77**
		$U_{22} - U_{23}$		253.20	-824.42	112	95	-1348	-518	-130	-34	90	-131	0.196	0.210	0.41	Yes	0.139	0.139	0.28	Yes	0.758	0.236	1	Yes	0.752	0.195	0.95	Yes	1.00	**2.73**
		$U_{23} - U_{24}$		379.41	-903.83	246	166	-469	-597	-212	-2	24	-555	0.294	0.147	0.45	Yes	0.206	0.098	0.31	Yes	0.831	0.161	1	Yes	0.825	0.086	0.92	Yes	1.00	**3.47**
		$U_{24} - U_{25}$		432.40	-759.92	234	320	-883	-212	-207	44	90	-146	0.406	0.169	0.58	Yes	0.269	0.111	0.39	Yes	0.844	0.154	1	Yes	0.838	0.141	0.98	Yes	1.00	**3.53**
		$U_{25} - U_{26}$		853.22	-155.72	525	574	-525	-115	-282	169	-267	-197	0.856	0.139	1.00	Yes	0.562	0.089	0.66	Yes	0.185	0.125	0.32	Yes	0.184	0.097	0.29	Yes	1.00	**6.12**
		$U_{26} - U_{27}$		376.05	-422.37	-2942	1265	-1020	149	-528	-268	-137	-402	0.377	0.577	0.96	Yes	0.251	0.382	0.64	Yes	0.502	0.223	0.73	Yes	0.499	0.499	1.00	Yes	1.00	**11.01**
		$U_{27} - U_{28}$		1026.12	-----	-612	1402	-4	273	-576	-578	-243	-126	0.756	0.237	1.00	Yes	0.503	0.156	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.26**
		$U_{28} - U_{29}$		1381.79	-----	538	36	-714	-332	-162	579	-976	-680	0.835	0.164	1.00	Yes	0.594	0.113	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.24**
		$U_{29} - U_{30}$		1261.31	-----	-604	3637	-159	1505	-491	253	-256	187	0.620	0.370	1.00	Yes	0.439	0.243	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.59**
		$U_{30} - U_{31}$		1215.55	-----	2018	85	3502	-1365	-468	-180	581	1067	0.598	0.397	1.00	Yes	0.423	0.261	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.54**
		$U_{31} - U_{32}$		1186.17	-----	148	574	-416	-689	-117	174	873	1137	0.801	0.195	1.00	Yes	0.571	0.135	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.00**
		$U_{32} - U_{33}$		889.91	-----	576	342	790	-1196	162	45	638	271	0.752	0.247	1.00	Yes	0.505	0.164	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.21**
		$U_{33} - U_{34}$		766.11	-820.35	524	394	-192	-1064	21	41	529	304	0.647	0.215	0.87	Yes	0.440	0.140	0.59	Yes	0.820	0.179	1	Yes	0.815	0.150	0.97	Yes	1.00	**4.59**
		$U_{34} - U_{35}$		380.95	-981.75	465	77	-196	-1176	105	39	384	-13	0.279	0.185	0.47	Yes	0.189	0.125	0.32	Yes	0.852	0.143	1	Yes	0.847	0.143	1.00	Yes	1.00	**3.24**
		$U_{35} - U_{36}$		106.23	-1287.48	247	-163	-357	-881	58	50	310	-47	0.061	0.119	0.19	Yes	0.043	0.079	0.13	Yes	0.879	0.116	1	Yes	0.873	0.094	0.97	Yes	1.00	**3.15**
		$U_{36} - U_{37}$		-----	-1379.07	-72	7	-772	-1628	165	-23	456	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.205	1	Yes	0.785	0.145	0.94	Yes	1.00	**2.67**
		$U_{37} - U_{38}$		-----	-1379.76	120	-173	-1546	-899	21	40	244	62	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.208	1	Yes	0.786	0.138	0.93	Yes	1.00	**2.67**
		$U_{38} - U_{39}$		-----	-1601.76	124	-361	-423	-1695	88	-83	283	-441	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.163	1	Yes	0.822	0.140	0.97	Yes	1.00	**2.85**
		$U_{39} - U_{40}$		-----	-1513.61	-273	-453	-1843	-899	-114	-119	197	-290	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.209	1	Yes	0.777	0.153	0.93	Yes	1.00	**2.65**
		$U_{40} - U_{41}$		-----	-1475.66	-345	-410	-940	-857	-90	-97	-199	-416	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.149	1	Yes	0.840	0.084	0.93	Yes	1.00	**3.07**
		$U_{41} - U_{42}$		-----	-1095.73	-1054	-7	-993	-234	-343	-1226	-93	-217	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.209	1	Yes	0.778	0.107	0.89	Yes	1.00	**3.85**
		$U_{42} - U_{43}$		-----	-857.21	-829	-38	-699	-69	-392	-422	-51	-254	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.166	1	Yes	0.827	0.126	0.96	Yes	1.00	**3.61**
		$U_{43} - U_{44}$		-----	-595.08	-1375	658	58	-289	-728	-332	43	34	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.288	1	Yes	0.703	0.233	0.94	Yes	1.00	**8.43**
	Structure 3	$U_0 - U_1$		-----	-665.63	158	-138	34	-1219	63	122	424	-146	-----	-----	-----	-----	-----	-----	-----	-----	0.756	0.211	0.97	Yes	0.749	0.245	1.00	Yes	1.00	**7.75**
		$U_1 - U_2$		-----	-705.63	-68	-105	-13	-619	249	510	317	-35	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.192	1	Yes	0.794	0.125	0.92	Yes	1.00	**3.14**
		$U_2 - U_3$		-----	-1054.35	-81	-106	21	-667	516	0	787	-28	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.162	1	Yes	0.825	0.109	0.94	Yes	1.00	**3.64**
		$U_3 - U_4$		-----	-1433.97	-141	-193	-501	-1088	124	-247	486	331	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.167	1	Yes	0.822	0.120	0.95	Yes	1.00	**3.71**
		$U_4 - U_5$		-----	-1514.86	-354	-16	-628	-628	31	-233	138	-542	-----	-----	-----	-----	-----	-----	-----	-----	0.878	0.113	1	Yes	0.868	0.069	0.94	Yes	1.00	**3.72**
		$U_5 - U_6$		-----	-1337.24	-156	-234	-562	-1612	-45	-203	-9	-235	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.218	1	Yes	0.767	0.178	0.95	Yes	1.00	**2.60**
		$U_6 - U_7$		-----	-1381.78	-307	-82	-1412	-478	-94	-236	7	-316	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.192	1	Yes	0.792	0.156	0.95	Yes	1.00	**3.00**
		$U_7 - U_8$		-----	-1266.28	-138	-13	-511	-424	-137	-130	0	-669	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.143	1	Yes	0.846	0.070	0.92	Yes	1.00	**3.21**
		$U_8 - U_9$		-----	-899.63	-463	200	-833	-1	-59	-248	83	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.144	1	Yes	0.844	0.138	0.99	Yes	1.00	**2.86**
		$U_9 - U_{10}$		-----	-343.57	-2502	1805	-184	74	-425	-1094	-169	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.442	0.504	0.95	Yes	0.438	0.561	1.00	Yes	1.00	**18.16**
		$U_{10} - U_{11}$		719.14	-----	-125	451	4	53	-737	-365	-226	-113	0.780	0.220	1.00	Yes	0.528	0.147	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.66**
		$U_{11} - U_{12}$		834.29	-----	-569	1569	-178	612	-424	-16	-295	9	0.684	0.315	1.00	Yes	0.468	0.215	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.73**
		$U_{12} - U_{13}$		1010.40	-----	1091	85	1646	-653	-443	-55	-73	299	0.700	0.294	1.00	Yes	0.488	0.201	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.41**
		$U_{13} - U_{14}$		876.44	-----	240	398	-28	-308	-174	308	272	496	0.838	0.153	1.00	Yes	0.586	0.105	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.64**
		$U_{14} - U_{15}$		717.45	-267.93	466	294	326	-392	31	186	392	-36	0.822	0.177	1.00	Yes	0.555	0.117	0.68	Yes	0.365	0.177	0.55	Yes	0.361	0.111	0.48	Yes	1.00	**4.54**
		$U_{15} - U_{16}$		380.72	-568.07	307	166	-122	-953	-20	157	108	115	0.436	0.253	0.69	Yes	0.299	0.174	0.48	Yes	0.773	0.212	0.99	Yes	0.766	0.226	1.00	Yes	1.00	**3.32**
		$U_{16} - U_{17}$		455.46	-623.85	395	136	-569	-419	8	108	175	-102	0.522	0.165	0.69	Yes	0.358	0.113	0.48	Yes	0.849	0.142	1	Yes	0.841	0.135	0.98	Yes	1.00	**4.11**
		$U_{17} - U_{18}$		217.98	-619.91	338	-107	-212	-620	-81	231	95	-351	0.250	0.207	0.46	Yes	0.169	0.136	0.31	Yes	0.844	0.149	1	Yes	0.836	0.147	0.99	Yes	1.00	**3.34**
		$U_{18} - U_{19}$		42.21	-558.69	48	-11	-740	-175	428	75	202	4	0.048	0.248	0.30	Yes	0.033	0.170	0.21	Yes	0.760	0.236	1	Yes	0.753	0.176	0.93	Yes	1.00	**3.00**
		$U_{19} - U_{20}$		128.74	-585.80	-850	456	366	-693	57	-206	53	114	0.148	0.237	0.39	Yes	0.101	0.163	0.27	Yes	0.797	0.168	0.97	Yes	0.790	0.202	1.00	Yes	1.00	**10.04**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Lower Chord	Structure 1	L_0 - L_1	128.14	-124.48	-378	292	1064	-1466	51	187	-460	-1693	0.196	0.804	1.00	Yes	0.115	0.481	0.60	Yes	0.226	0.564	0.8	Yes	0.224	0.440	0.67	Yes	1.00	**20.35**
		L_1 - L_2	447.38	-93.40	36	89	-38	-689	54	1	-498	228	0.685	0.314	1.00	Yes	0.418	0.206	0.63	Yes	0.170	0.177	0.35	Yes	0.168	0.207	0.38	Yes	1.00	**4.67**
		L_2 - L_3	708.74	-246.49	45	205	-446	-652	-2	-21	122	127	0.815	0.178	1.00	Yes	0.472	0.107	0.58	Yes	0.337	0.219	0.56	Yes	0.334	0.157	0.50	Yes	1.00	**5.55**
		L_3 - L_4	654.73	-293.26	83	327	-309	-936	-18	-2	-121	88	0.753	0.246	1.00	Yes	0.447	0.159	0.61	Yes	0.401	0.224	0.63	Yes	0.397	0.226	0.63	Yes	1.00	**4.01**
		L_4 - L_5	-----	-364.31	-1654	1219	-64	271	77	23	40	-91	-----	-----	-----	-----	-----	-----	-----	-----	0.560	0.189	0.75	Yes	0.555	0.438	1.00	Yes	1.00	**7.88**
		L_5 - L_6	-----	-723.87	-73	706	-290	197	10	88	203	155	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.147	1	Yes	0.835	0.156	1.00	Yes	1.00	**3.29**
		L_6 - L_7	-----	-1119.72	-613	319	148	-94	-110	-46	349	41	-----	-----	-----	-----	-----	-----	-----	-----	0.912	0.055	0.97	Yes	0.901	0.096	1.00	Yes	1.00	**4.72**
		L_7 - L_8	-----	-1240.49	-97	1503	-33	584	81	132	41	72	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.197	1	Yes	0.786	0.199	0.99	Yes	1.00	**2.44**
		L_8 - L_9	-----	-1264.93	950	7	1422	-176	93	48	235	-69	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.182	1	Yes	0.801	0.188	0.99	Yes	1.00	**4.50**
		L_9 - L_{10}	-----	-1065.68	79	211	642	-857	96	70	-96	-180	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.053	0.93	Yes	0.858	0.135	1.00	Yes	1.00	**8.20**
		L_{10} - L_{11}	38.66	-544.77	483	1	257	-612	90	18	10	-182	0.050	0.194	0.25	Yes	0.029	0.117	0.15	Yes	0.837	0.089	0.93	Yes	0.830	0.162	1.00	Yes	1.00	**5.23**
		L_{11} - L_{12}	591.29	-198.81	377	-161	264	-753	-26	9	-186	174	0.766	0.232	1.00	Yes	0.459	0.152	0.62	Yes	0.306	0.100	0.41	Yes	0.303	0.199	0.51	Yes	1.00	**4.22**
		L_{12} - L_{13}	1134.64	-----	111	-77	-299	-470	-16	-35	7	-180	0.895	0.104	1.00	Yes	0.573	0.063	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.42**
		L_{13} - L_{14}	1278.37	-----	232	-391	228	-1623	-105	61	-251	119	0.752	0.245	1.00	Yes	0.487	0.150	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.41**
		L_{14} - L_{15}	1605.09	-----	-345	-81	-1548	-497	-68	-51	-312	112	0.784	0.209	1.00	Yes	0.510	0.126	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.78**
		L_{15} - L_{16}	1699.50	-----	-185	-390	-956	-1165	-79	10	319	227	0.830	0.163	1.00	Yes	0.533	0.096	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.67**
		L_{16} - L_{17}	1255.48	-----	-1223	74	-920	5	-260	-77	-31	-34	0.794	0.203	1.00	Yes	0.515	0.125	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.47**
		L_{17} - L_{18}	936.38	-----	-708	144	-170	-68	-227	-314	-50	1	0.815	0.177	1.00	Yes	0.522	0.107	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.84**
		L_{18} - L_{19}	437.93	-----	-914	441	-229	164	-225	206	-1	-27	0.670	0.321	1.00	Yes	0.453	0.201	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.96**
		L_{19} - L_{20}	84.47	-280.44	-1642	953	-93	18	591	132	-36	-8	0.129	0.616	0.75	Yes	0.079	0.411	0.49	Yes	0.509	0.347	0.86	Yes	0.505	0.493	1.00	Yes	1.00	**12.81**
	Structure 2	L_0 - L_1	68.81	-22.16	-229	234	1064	-2609	8	28	-361	-1254	0.104	0.895	1.00	Yes	0.063	0.447	0.52	Yes	0.040	0.639	0.68	Yes	0.039	0.629	0.67	Yes	1.00	**15.43**
		L_1 - L_2	571.75	-----	132	-128	420	-1165	82	84	-416	240	0.694	0.305	1.00	Yes	0.413	0.195	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		L_2 - L_3	1066.24	-----	-28	-93	-81	-882	115	174	251	-80	0.840	0.154	1.00	Yes	0.551	0.093	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.40**
		L_3 - L_4	1414.16	-----	43	-256	-54	-1294	50	128	-164	183	0.831	0.166	1.00	Yes	0.560	0.103	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.00**
		L_4 - L_5	1838.72	-----	-206	-160	-1042	-1289	15	-13	235	-82	0.857	0.138	1.00	Yes	0.568	0.082	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.18**
		L_5 - L_6	1932.85	-----	-10	-247	-791	-1601	-92	56	-354	176	0.829	0.164	1.00	Yes	0.557	0.101	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.90**
		L_6 - L_7	1920.13	-----	-274	24	-1484	-1864	56	-39	93	-235	0.813	0.178	1.00	Yes	0.540	0.104	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.12**
		L_7 - L_8	1364.01	-87.32	-144	306	-1439	-454	-60	80	-660	-184	0.782	0.213	1.00	Yes	0.514	0.128	0.65	Yes	0.059	0.189	0.25	Yes	0.059	0.159	0.22	Yes	1.00	**3.17**
		L_8 - L_9	1116.68	-330.72	-98	556	-1028	-48	72	-70	196	826	0.781	0.216	1.00	Yes	0.526	0.138	0.67	Yes	0.274	0.149	0.43	Yes	0.272	0.139	0.42	Yes	1.00	**3.50**
		L_9 - L_{10}	786.73	-742.53	-39	742	-1325	166	29	112	373	-141	0.702	0.257	0.96	Yes	0.409	0.159	0.57	Yes	0.785	0.149	0.94	Yes	0.780	0.212	1.00	Yes	1.00	**4.47**
		L_{10} - L_{11}	-----	-763.30	53	577	-262	384	131	-46	35	-59	-----	-----	-----	-----	-----	-----	-----	-----	0.903	0.064	0.97	Yes	0.897	0.101	1.00	Yes	1.00	**3.24**
		L_{11} - L_{12}	-----	-998.51	-680	1278	-208	503	-26	20	-14	65	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.101	0.93	Yes	0.819	0.174	1.00	Yes	1.00	**2.91**
		L_{12} - L_{13}	-----	-1422.03	-436	-125	-509	-967	-286	-365	250	327	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.139	1	Yes	0.851	0.096	0.95	Yes	1.00	**3.13**
		L_{13} - L_{14}	-----	-1467.64	-1080	2968	-488	1434	-60	-71	-78	-111	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.176	0.93	Yes	0.738	0.259	1.00	Yes	1.00	**2.11**
		L_{14} - L_{15}	-----	-1471.98	1394	-536	2922	-1149	-128	-109	-121	-77	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.170	0.92	Yes	0.741	0.255	1.00	Yes	1.00	**2.11**
		L_{15} - L_{16}	-----	-1441.06	-1209	763	-902	-1033	-13	411	-345	-357	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.126	1	Yes	0.862	0.120	0.99	Yes	1.00	**9.15**
		L_{16} - L_{17}	-----	-1165.59	1147	254	1149	-689	337	149	-232	-382	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.126	0.99	Yes	0.849	0.142	1.00	Yes	1.00	**5.85**
		L_{17} - L_{18}	-----	-823.69	401	275	786	-512	40	-29	11	0	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.077	0.95	Yes	0.865	0.126	1.00	Yes	1.00	**3.22**
		L_{18} - L_{19}	-----	-660.67	595	155	398	-443	-47	-69	-15	-47	-----	-----	-----	-----	-----	-----	-----	-----	0.886	0.096	0.99	Yes	0.880	0.115	1.00	Yes	1.00	**3.24**
		L_{19} - L_{20}	418.49	-649.35	478	282	201	-670	-71	-21	-170	142	0.474	0.155	0.63	Yes	0.280	0.099	0.38	Yes	0.871	0.110	0.99	Yes	0.865	0.129	1.00	Yes	1.00	**3.97**
		L_{20} - L_{21}	1056.56	-810.93	591	257	-535	-892	14	-64	9	-203	0.843	0.152	1.00	Yes	0.553	0.091	0.65	Yes	0.766	0.126	0.9	Yes	0.761	0.130	0.90	Yes	1.00	**5.68**
		L_{21} - L_{22}	877.44	-474.66	295	115	-252	-1920	-48	-26	-180	142	0.700	0.300	1.00	Yes	0.468	0.187	0.66	Yes	0.448	0.228	0.68	Yes	0.445	0.280	0.73	Yes	1.00	**3.88**
		L_{22} - L_{23}	934.43	-475.10	131	273	-1517	-561	62	-62	-263	115	0.745	0.250	1.00	Yes	0.498	0.157	0.66	Yes	0.449	0.216	0.67	Yes	0.446	0.221	0.67	Yes	1.00	**4.03**
		L_{23} - L_{24}	993.55	-697.70	210	459	-1087	-609	4	48	380	276	0.792	0.200	1.00	Yes	0.520	0.120	0.64	Yes	0.659	0.191	0.86	Yes	0.655	0.159	0.82	Yes	1.00	**5.32**
		L_{24} - L_{25}	261.85	-675.90	238	483	-469	66	142	-141	-14	8	0.297	0.115	0.42	Yes	0.175	0.073	0.25	Yes	0.906	0.071	0.98	Yes	0.901	0.093	1.00	Yes	1.00	**4.52**
		L_{25} - L_{26}	-----	-665.65	157	566	-79	234	11	72	-14	52	-----	-----	-----	-----	-----	-----	-----	-----	0.893	0.087	0.98	Yes	0.887	0.109	1.00	Yes	1.00	**3.80**
		L_{26} - L_{27}	-----	-818.67	-705	856	-106	345	86	-22	62	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.073	0.94	Yes	0.860	0.137	1.00	Yes	1.00	**3.74**
		L_{27} - L_{28}	-----	-1124.13	-350	1403	-98	535	65	145	29	109	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.134	0.96	Yes	0.819	0.173	1.00	Yes	1.00	**2.93**
		L_{28} - L_{29}	-----	-1472.06	-151	-253	-242	-1017	20	-121	170	7	-----	-----	-----	-----	-----	-----	-----	-----	0.888	0.109	1	Yes	0.881	0.101	0.99	Yes	1.00	**2.98**
		L_{29} - L_{30}	-----	-1468.95	-1089	2932	-484	1307	-24	-18	21	13	-----	-----	-----	-----	-----	-----	-----	-----	0.746	0.167	0.92	Yes	0.739	0.256	1.00	Yes	1.00	**2.17**
		L_{30} - L_{31}	-----	-1453.04	1336	-472	3006	-1129	-6	-18	19	52	-----	-----	-----	-----	-----	-----	-----	-----	0.738	0.173	0.92	Yes	0.731	0.262	1.00	Yes	1.00	**2.24**
		L_{31} - L_{32}	-----	-1466.25	-571	419	-530	-1120	-157	-68	70	8	-----	-----	-----	-----	-----	-----	-----	-----	0.885	0.111	1	Yes	0.877	0.111	0.99	Yes	1.00	**5.46**
		L_{32} - L_{33}	-----	-995.97	881	38	1274	-584	21	-27	43	12	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.111	0.94	Yes	0.817	0.174	1.00	Yes	1.00	**2.87**
		L_{33} - L_{34}	110.59	-739.03	517	142	467	-732	-23	1	-22	193	0.110	0.154	0.27	Yes	0.065	0.096	0.17	Yes	0.874	0.105	0.98	Yes	0.868	0.128	1.00	Yes	1.00	**3.09**
		L_{34} - L_{35}	807.75	-787.16	768	32	23	-1080	-14	-77	183	-144	0.721	0.195	0.92	Yes	0.420	0.121	0.55	Yes	0.832	0.106	0.94	Yes	0.827	0.173	1.00	Yes	1.00	**4.53**
		L_{35} - L_{36}	1165.39	-462.03	576	2	95	-992	-78	0	-441	246	0.815	0.175	1.00	Yes	0.549	0.110	0.66	Yes	0.383	0.089	0.48	Yes	0.380	0.134	0.52	Yes	1.00	**3.96**
		L_{36} - L_{37}	1407.47	-156.42	410	-7	-436	-1499	13	-18	305	34	0.807	0.190	1.00	Yes	0.530	0.112	0.65	Yes	0.106	0.172	0.28	Yes	0.106	0.165	0.28	Yes	1.00	**3.45**
		L_{37} - L_{38}	1893.99	-----	133	-359	-1469	-1672	-62	38	-809	-122	0.802	0.197	1.00	Yes	0.533	0.118	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.86**
		L_{38} - L_{39}	1847.83	-----	-290	-53	-1689	-1235	-5	-67	336	841	0.793	0.202	1.00	Yes	0.532	0.126	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.82**
		L_{39} - L_{40}	1791.85	-128.67	57	-305	-1642	-1214	-96	-47	102	-12	0.835	0.162	1.00	Yes	0.553	0.095	0.65	Yes	0.071	0.287	0.36	Yes	0.071	0.155	0.23	Yes	1.00	**9.51**
		L_{40} - L_{41}	1392.07	-----	-510	50	-1399	-379	-16	-39	-117	-15	0.818	0.173	1.00	Yes	0.551	0.107	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.51**
		L_{41} - L_{42}	974.10	-----	-926	251	-111	-145	-843	-569	107	234	0.768	0.223	1.00	Yes	0.503	0.138	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.57**
		L_{42} - L_{43}	590.25	-----	-1220	408	-199	129	-210	193	80	28	0.717	0.283	1.00	Yes	0.426	0.182	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.53**
		L_{43} - L_{44}	-----	-165.73	-3708	1333	243	-185	1347	393	-89	-26	-----	-----	-----	-----	-----	-----	-----	-----	0.238	0.654	0.9	Yes	0.237	0.754	1.00	Yes	1.00	**22.27**
	Structure 3	L_0 - L_1	23.45	-152.58	-92	54	1418	-2357	3	13	-266	-1208	0.036	0.958	1.00	Yes	0.022	0.636	0.66	Yes	0.277	0.571	0.85	Yes	0.275	0.707	0.99	Yes	1.00	**20.15**
		L_1 - L_2	450.45	-----	147	-165	385	-802	36	60	-289	297	0.689	0.302	1.00	Yes	0.466	0.190	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		L_2 - L_3	957.96	-----	-26	-135	-12	-626	86	128	304	-44	0.834	0.160	1.00	Yes	0.534	0.097	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.10**
		L_3 - L_4	1294.66	-----	41	-295	18	-1111	30	121	-176	197	0.819	0.181	1.00	Yes	0.531	0.111	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.59**
		L_4 - L_5	1756.74	-----	-270	-126	-1066	-789	28	14	87	-135	0.858	0.138	1.00	Yes	0.551	0.080	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.06**
		L_5 - L_6	1526.53	-----	-35	-314	-268	-1900	-62	137	-199	230	0.746	0.245	1.00	Yes	0.485	0.148	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.78**
		L_6 - L_7	1333.89	-----	-1410	366	-1426	-6	-8	-2	-223	177	0.784	0.215	1.00	Yes	0.508	0.131	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.74**
		L_7 - L_8	1092.06	-----	-79	93	-551	-343	-1	97	339	330	0.862	0.137	1.00	Yes	0.551	0.083	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.14**
		L_8 - L_9	388.13	-----	-1659	1094	-262	198	-279	14	17	-68	0.503	0.488	1.00	Yes	0.302	0.321	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.62**
		L_9 - L_{10}	-----	-535.75	-444	674	-164	134	-52	-13	-27	50	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.060	0.89	Yes	0.816	0.178	1.00	Yes	1.00	**4.46**
		L_{10} - L_{11}	-----	-1068.58	-841	693	66	-131	71	-145	337	-163	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.052	0.93	Yes	0.865	0.133	1.00	Yes	1.00	**8.44**
		L_{11} - L_{12}	-----	-1261.03	-122	1399	-55	534	-133	-197	-84	-98	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.186	1	Yes	0.799	0.185	0.99	Yes	1.00	**2.62**
		L_{12} - L_{13}	-----	-1241.75	845	-12	1429	-102	-173	-156	-232	-191	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.197	1	Yes	0.786	0.189	0.98	Yes	1.00	**2.43**
		L_{13} - L_{14}	-----	-1130.27	24	281	258	-531	-89	-46	-158	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.920	0.041	0.97	Yes	0.910	0.083	1.00	Yes	1.00	**5.27**
		L_{14} - L_{15}	-----	-745.68	572	146	210	-217	-32	-88	-33	-143	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.127	1	Yes	0.860	0.126	0.99	Yes	1.00	**3.28**
		L_{15} - L_{16}	125.65	-518.43	456	143	395	-762	-4	-72	-91	150	0.163	0.228	0.40	Yes	0.098	0.150	0.25	Yes	0.797	0.173	0.98	Yes	0.790	0.202	1.00	Yes	1.00	**2.99**
		L_{16} - L_{17}	703.26	-276.27	383	40	-636	-497	57	-81	-224	43	0.809	0.189	1.00	Yes	0.481	0.122	0.61	Yes	0.377	0.205	0.59	Yes	0.374	0.154	0.53	Yes	1.00	**4.22**
		L_{17} - L_{18}	692.59	-126.79	118	-44	-617	-708	41	102	177	113	0.797	0.199	1.00	Yes	0.461	0.119	0.59	Yes	0.173	0.218	0.4	Yes	0.172	0.171	0.35	Yes	1.00	**4.23**
		L_{18} - L_{19}	452.30	-----	-844	65	-439	-25	-119	239	22	178	0.692	0.305	1.00	Yes	0.422	0.204	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.45**
		L_{19} - L_{20}	-----	-222.52	-1971	1675	306	-355	1337	364	-235	-64	-----	-----	-----	-----	-----	-----	-----	-----	0.404	0.565	0.97	Yes	0.401	0.592	1.00	Yes	1.00	**26.42**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
Center Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-310.53	-150	200	-1	21	-720	-231	-72	-23	-----	-----	-----	-----	-----	-----	-----	-----	0.694	0.299	1	Yes	0.657	0.255	0.92	Yes	1.00	**2.33**
		$U_1 - L_1$	74.04	-334.02	-217	224	56	-52	-117	-49	106	41	0.133	0.321	0.46	Yes	0.073	0.176	0.25	Yes	0.730	0.114	0.85	Yes	0.707	0.287	1.00	Yes	1.00	**4.35**
		$U_2 - L_2$	137.78	-311.11	-215	266	122	-136	62	102	96	9	0.248	0.369	0.62	Yes	0.136	0.203	0.34	Yes	0.680	0.136	0.82	Yes	0.658	0.340	1.00	Yes	1.00	**5.84**
		$U_3 - L_3$	219.99	-270.39	-311	334	185	-217	12	256	-237	-222	0.396	0.501	0.90	Yes	0.218	0.276	0.50	Yes	0.592	0.173	0.77	Yes	0.572	0.427	1.00	Yes	1.00	**7.98**
		$U_4 - L_4$	-----	-374.36	54	-55	159	-162	-161	-75	-98	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.098	0.93	Yes	0.792	0.207	1.00	Yes	1.00	**2.92**
		$U_5 - L_5$	-----	-422.71	59	-66	247	-260	-151	-46	-96	-31	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.106	0.88	Yes	0.729	0.264	1.00	Yes	1.00	**2.32**
		$U_6 - L_6$	-----	-466.62	72	-72	195	-211	-135	0	1134	419	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.290	1	Yes	0.669	0.184	0.86	Yes	1.00	**1.99**
		$U_7 - L_7$	-----	-434.70	119	-132	302	-327	-131	46	-1	99	-----	-----	-----	-----	-----	-----	-----	-----	0.727	0.125	0.86	Yes	0.671	0.322	1.00	Yes	1.00	**1.83**
		$U_8 - L_8$	-----	-1195.50	-288	341	351	-431	-1098	-381	626	148	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.128	1	Yes	0.829	0.080	0.91	Yes	1.00	**4.34**
		$U_9 - L_9$	-----	-648.72	-406	480	-176	203	-107	-350	-245	-171	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.156	0.93	Yes	0.733	0.267	1.00	Yes	1.00	**2.58**
		$U_{10} - L_{10}$	-----	-805.28	-360	384	-137	102	-296	-221	-214	-167	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.113	0.95	Yes	0.795	0.199	1.00	Yes	1.00	**4.26**
		$U_{11} - L_{11}$	-----	-669.28	-372	463	-118	161	-157	-34	-140	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.091	0.9	Yes	0.779	0.215	1.00	Yes	1.00	**3.29**
		$U_{12} - L_{12}$	-----	-535.70	-299	307	-103	102	-99	63	-125	5	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.090	0.87	Yes	0.735	0.263	1.00	Yes	1.00	**3.00**
		$U_{13} - L_{13}$	-----	-368.13	-237	256	-64	78	-81	107	-106	45	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.101	0.85	Yes	0.705	0.292	1.00	Yes	1.00	**2.29**
		$U_{14} - L_{14}$	-----	-248.32	-124	144	-34	40	-1599	-122	-1340	-225	-----	-----	-----	-----	-----	-----	-----	-----	0.554	0.443	1	Yes	0.525	0.184	0.71	Yes	1.00	**3.29**
		$U_{15} - L_{15}$	54.80	-298.21	-45	44	278	-286	-156	-89	-94	-227	0.099	0.432	0.54	Yes	0.054	0.238	0.30	Yes	0.668	0.181	0.85	Yes	0.631	0.366	1.00	Yes	1.00	**4.69**
		$U_{16} - L_{16}$	1.32	-323.16	10	-14	234	-245	-166	-111	-95	-219	0.002	0.377	0.38	Yes	0.001	0.207	0.21	Yes	0.728	0.165	0.9	Yes	0.684	0.314	1.00	Yes	1.00	**3.86**
		$U_{17} - L_{17}$	-----	-438.28	43	-55	218	-237	-170	-100	41	-87	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.131	0.96	Yes	0.756	0.240	1.00	Yes	1.00	**2.72**
		$U_{18} - L_{18}$	-----	-536.60	116	-121	425	-443	-159	-64	60	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.094	0.88	Yes	0.746	0.251	1.00	Yes	1.00	**3.21**
		$U_{19} - L_{19}$	-----	-654.65	130	-143	486	-512	-69	3	365	148	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.149	0.97	Yes	0.762	0.238	1.00	Yes	1.00	**3.66**
		$U_{20} - L_{20}$	-----	-598.89	164	-209	404	-503	18	2	546	72	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.201	1	Yes	0.697	0.234	0.94	Yes	1.00	**2.70**
	Structure 2	$U_0 - L_0$	-----	-649.75	-403	521	-94	156	-791	-134	-274	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.217	1	Yes	0.696	0.221	0.92	Yes	1.00	**2.44**
		$U_1 - L_1$	-----	-700.12	-466	504	-87	92	-859	-278	58	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.193	1	Yes	0.750	0.214	0.97	Yes	1.00	**3.28**
		$U_2 - L_2$	-----	-594.26	-447	474	-48	57	-703	-195	134	52	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.176	0.98	Yes	0.757	0.243	1.00	Yes	1.00	**3.43**
		$U_3 - L_3$	-----	-486.73	-214	237	-24	29	-508	-166	41	146	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.166	1	Yes	0.763	0.215	0.98	Yes	1.00	**3.15**
		$U_4 - L_4$	29.58	-340.92	-204	212	17	-9	40	238	-42	101	0.053	0.340	0.40	Yes	0.029	0.187	0.22	Yes	0.773	0.127	0.9	Yes	0.721	0.271	1.00	Yes	1.00	**3.61**
		$U_5 - L_5$	111.85	-337.69	-191	219	80	-77	5	246	-97	0	0.201	0.351	0.56	Yes	0.111	0.193	0.31	Yes	0.763	0.128	0.9	Yes	0.715	0.280	1.00	Yes	1.00	**4.96**
		$U_6 - L_6$	245.45	-290.88	-290	299	155	-172	57	340	-130	-79	0.441	0.481	0.93	Yes	0.243	0.265	0.51	Yes	0.655	0.169	0.83	Yes	0.615	0.383	1.00	Yes	1.00	**8.97**
		$U_7 - L_7$	-----	-229.02	51	-58	317	-370	-128	-34	-1238	-338	-----	-----	-----	-----	-----	-----	-----	-----	0.517	0.477	1	Yes	0.485	0.473	0.96	Yes	1.00	**12.68**
		$U_8 - L_8$	-----	-459.03	113	-125	371	-383	-166	-113	-642	-478	-----	-----	-----	-----	-----	-----	-----	-----	0.666	0.224	0.89	Yes	0.661	0.335	1.00	Yes	1.00	**3.38**
		$U_9 - L_9$	-----	-666.91	202	-207	457	-511	-220	-118	1858	312	-----	-----	-----	-----	-----	-----	-----	-----	0.742	0.253	1	Yes	0.715	0.217	0.94	Yes	1.00	**3.28**
		$U_{10} - L_{10}$	-----	-785.54	184	-194	565	-589	-162	-77	-44	-97	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.097	0.88	Yes	0.734	0.260	1.00	Yes	1.00	**3.78**
		$U_{11} - L_{11}$	-----	-847.85	196	-196	436	-468	-122	-13	-81	34	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.078	0.94	Yes	0.793	0.207	1.00	Yes	1.00	**2.69**
		$U_{12} - L_{12}$	-----	-889.39	176	-153	514	-492	-58	59	49	119	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.086	0.94	Yes	0.771	0.221	1.00	Yes	1.00	**2.79**
		$U_{13} - L_{13}$	-----	-733.38	265	-264	597	-599	-55	58	-22	99	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.111	0.93	Yes	0.707	0.286	1.00	Yes	1.00	**2.53**
		$U_{14} - L_{14}$	-----	-1201.66	-394	363	625	-599	-832	-292	703	392	-----	-----	-----	-----	-----	-----	-----	-----	0.879	0.116	1	Yes	0.797	0.111	0.91	Yes	1.00	**4.76**
		$U_{15} - L_{15}$	-----	-702.91	-655	657	-136	151	-183	-151	-33	15	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.156	0.94	Yes	0.678	0.314	1.00	Yes	1.00	**3.40**
		$U_{16} - L_{16}$	-----	-736.65	-490	451	-83	49	-292	-207	-134	-53	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.116	0.97	Yes	0.789	0.208	1.00	Yes	1.00	**2.90**
		$U_{17} - L_{17}$	-----	-642.94	-542	533	-137	125	-160	-94	-85	-42	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.092	0.89	Yes	0.748	0.251	1.00	Yes	1.00	**2.50**
		$U_{18} - L_{18}$	-----	-613.50	-380	420	-130	116	-188	-60	-77	-39	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.088	0.91	Yes	0.782	0.215	1.00	Yes	1.00	**2.36**
		$U_{19} - L_{19}$	-----	-481.54	-284	287	-85	77	105	-162	-90	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.724	0.093	0.82	Yes	0.719	0.277	1.00	Yes	1.00	**3.46**
		$U_{20} - L_{20}$	-----	-384.87	-208	222	-55	54	-149	76	-124	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.103	0.9	Yes	0.737	0.253	1.00	Yes	1.00	**3.35**
		$U_{21} - L_{21}$	-----	-314.71	-245	255	-27	37	-132	96	-438	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.711	0.201	0.92	Yes	0.666	0.326	1.00	Yes	1.00	**3.50**
		$U_{22} - L_{22}$	-----	-225.67	-125	146	174	-197	244	97	-1473	-476	-----	-----	-----	-----	-----	-----	-----	-----	0.508	0.486	1	Yes	0.477	0.252	0.73	Yes	1.00	**13.00**
		$U_{23} - L_{23}$	-----	-309.20	24	-25	265	-270	-91	34	-97	-150	-----	-----	-----	-----	-----	-----	-----	-----	0.698	0.146	0.85	Yes	0.654	0.345	1.00	Yes	1.00	**3.77**
		$U_{24} - L_{24}$	-----	-377.96	44	-46	224	-237	-132	23	-84	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.110	0.89	Yes	0.724	0.270	1.00	Yes	1.00	**3.55**
		$U_{25} - L_{25}$	-----	-469.36	81	-78	305	-302	-122	32	79	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.706	0.087	0.8	Yes	0.701	0.294	1.00	Yes	1.00	**3.05**
		$U_{26} - L_{26}$	-----	-600.38	135	-134	403	-452	-154	22	-64	12	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.085	0.89	Yes	0.765	0.231	1.00	Yes	1.00	**2.35**
		$U_{27} - L_{27}$	-----	-627.80	157	-156	566	-566	-148	42	-99	54	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.082	0.86	Yes	0.731	0.263	1.00	Yes	1.00	**2.43**
		$U_{28} - L_{28}$	-----	-657.49	136	-118	442	-434	-117	38	1361	262	-----	-----	-----	-----	-----	-----	-----	-----	0.759	0.238	1	Yes	0.705	0.187	0.90	Yes	1.00	**2.21**
		$U_{29} - L_{29}$	-----	-698.75	226	-229	677	-675	-98	39	111	118	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.126	0.91	Yes	0.674	0.324	1.00	Yes	1.00	**2.92**
		$U_{30} - L_{30}$	-----	-1187.07	-456	402	424	-429	-806	-375	556	202	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.127	1	Yes	0.787	0.081	0.87	Yes	1.00	**4.17**
		$U_{31} - L_{31}$	-----	-744.49	-586	586	-187	189	-194	-140	-112	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.149	0.98	Yes	0.718	0.281	1.00	Yes	1.00	**2.85**
		$U_{32} - L_{32}$	-----	-902.75	-483	446	-123	89	-291	-194	-182	-107	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.132	1	Yes	0.782	0.207	0.99	Yes	1.00	**3.05**
		$U_{33} - L_{33}$	-----	-858.83	-404	431	-169	146	-156	-81	-138	-77	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.080	0.95	Yes	0.803	0.190	1.00	Yes	1.00	**2.91**
		$U_{34} - L_{34}$	-----	-803.94	-500	550	-156	162	-728	-250	-102	19	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.166	0.97	Yes	0.752	0.243	1.00	Yes	1.00	**4.81**
		$U_{35} - L_{35}$	-----	-710.43	-514	557	-180	186	48	293	-105	35	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.084	0.88	Yes	0.761	0.236	1.00	Yes	1.00	**4.45**
		$U_{36} - L_{36}$	-----	-473.30	-343	360	-103	116	-52	193	-103	47	-----	-----	-----	-----	-----	-----	-----	-----	0.686	0.101	0.79	Yes	0.682	0.315	1.00	Yes	1.00	**3.47**
		$U_{37} - L_{37}$	-----	-238.49	-110	133	-57	68	-1768	73	-121	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.539	0.454	1	Yes	0.505	0.170	0.68	Yes	1.00	**3.15**
		$U_{38} - L_{38}$	219.85	-226.01	-153	168	256	-257	-117	-29	-936	-608	0.395	0.599	1.00	Yes	0.217	0.329	0.55	Yes	0.509	0.401	0.91	Yes	0.478	0.328	0.81	Yes	1.00	**7.03**
		$U_{39} - L_{39}$	126.80	-301.43	-97	95	196	-218	-150	-48	-640	-420	0.228	0.464	0.70	Yes	0.125	0.255	0.39	Yes	0.681	0.310	1	Yes	0.638	0.278	0.92	Yes	1.00	**4.59**
		$U_{40} - L_{40}$	33.97	-330.25	-20	12	232	-233	-129	-59	-57	-129	0.061	0.335	0.40	Yes	0.034	0.184	0.22	Yes	0.749	0.127	0.88	Yes	0.699	0.297	1.00	Yes	1.00	**3.09**
		$U_{41} - L_{41}$	-----	-487.94	27	-34	236	-252	-102	-38	-92	-112	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.101	0.94	Yes	0.765	0.230	1.00	Yes	1.00	**2.94**
		$U_{42} - L_{42}$	-----	-582.68	71	-81	491	-501	-83	-55	58	26	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.080	0.87	Yes	0.742	0.257	1.00	Yes	1.00	**3.32**
		$U_{43} - L_{43}$	-----	-706.87	107	-124	521	-554	-58	-38	461	242	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.145	0.96	Yes	0.758	0.235	1.00	Yes	1.00	**3.54**
		$U_{44} - L_{44}$	-----	-664.23	178	-218	443	-568	-60	-10	666	113	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.201	1	Yes	0.712	0.241	0.96	Yes	1.00	**2.64**
	Structure 3	$U_0 - L_0$	-----	-578.05	-365	458	-98	161	-731	-96	-244	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.229	1	Yes	0.673	0.213	0.89	Yes	1.00	**2.71**
		$U_1 - L_1$	-----	-635.44	-420	456	-104	111	-787	-209	8	-73	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.205	1	Yes	0.740	0.212	0.96	Yes	1.00	**3.67**
		$U_2 - L_2$	-----	-545.67	-390	420	-81	86	-722	-182	93	37	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.189	0.99	Yes	0.759	0.238	1.00	Yes	1.00	**3.80**
		$U_3 - L_3$	-----	-448.31	-192	215	-28	39	-44	173	6	124	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.110	0.95	Yes	0.773	0.218	1.00	Yes	1.00	**3.32**
		$U_4 - L_4$	0.80	-332.71	-216	230	-9	12	-155	189	-74	99	0.001	0.349	0.36	Yes	0.001	0.192	0.20	Yes	0.750	0.102	0.86	Yes	0.704	0.294	1.00	Yes	1.00	**3.93**
		$U_5 - L_5$	49.47	-303.87	-264	277	35	-33	-163	172	-115	23	0.089	0.404	0.50	Yes	0.049	0.222	0.28	Yes	0.681	0.129	0.81	Yes	0.643	0.354	1.00	Yes	1.00	**4.64**
		$U_6 - L_6$	-----	-265.55	34	-37	130	-143	-149	-43	-1391	-232	-----	-----	-----	-----	-----	-----	-----	-----	0.593	0.406	1	Yes	0.562	0.183	0.75	Yes	1.00	**3.53**
		$U_7 - L_7$	-----	-358.94	61	-73	256	-271	-163	-111	-187	-173	-----	-----	-----	-----	-----	-----	-----	-----	0.726	0.148	0.88	Yes	0.688	0.310	1.00	Yes	1.00	**2.39**
		$U_8 - L_8$	-----	-520.45	103	-100	321	-327	-196	-126	-218	-182	-----	-----	-----	-----	-----	-----	-----	-----	0.752	0.124	0.88	Yes	0.714	0.279	1.00	Yes	1.00	**3.04**
		$U_9 - L_9$	-----	-653.05	123	-164	412	-503	-154	-70	57	18	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.098	0.89	Yes	0.760	0.234	1.00	Yes	1.00	**3.07**
		$U_{10} - L_{10}$	-----	-805.18	136	-120	384	-394	47	162	136	179	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.074	0.91	Yes	0.794	0.205	1.00	Yes	1.00	**3.49**
		$U_{11} - L_{11}$	-----	-632.60	186	-216	426	-502	-39	68	-72	294	-----	-----	-----	-----	-----	-----	-----	-----	0.754	0.123	0.88	Yes	0.715	0.279	1.00	Yes	1.00	**2.34**
		$U_{12} - L_{12}$	-----	-1223.46	-263	271	362	-489	-903	-208	838	321	-----	-----	-----	-----	-----	-----	-----	-----	0.883	0.111	1	Yes	0.848	0.091	0.94	Yes	1.00	**4.54**
		$U_{13} - L_{13}$	-----	-449.07	-287	310	-106	117	-162	-137	-140	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.751	0.148	0.9	Yes	0.693	0.306	1.00	Yes	1.00	**2.26**
		$U_{14} - L_{14}$	-----	-550.48	-234	233	-63	59	-275	-211	-163	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.128	0.97	Yes	0.789	0.205	1.00	Yes	1.00	**2.89**
		$U_{15} - L_{15}$	-----	-433.22	-232	242	-51	56	-199	-83	-141	-63	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.114	0.9	Yes	0.747	0.246	1.00	Yes	1.00	**2.43**
		$U_{16} - L_{16}$	-----	-246.53	-168	175	-52	52	-1532	-444	-162	-85	-----	-----	-----	-----	-----	-----	-----	-----	0.542	0.455	1	Yes	0.522	0.224	0.75	Yes	1.00	**2.93**
		$U_{17} - L_{17}$	215.12	-266.24	-205	234	324	-337	-117	88	-283	-320	0.387	0.523	0.91	Yes	0.213	0.288	0.51	Yes	0.583	0.203	0.79	Yes	0.563	0.431	1.00	Yes	1.00	**7.89**
		$U_{18} - L_{18}$	136.52	-299.82	-134	147	238	-282	-109	-40	-281	-182	0.246	0.441	0.69	Yes	0.135	0.243	0.38	Yes	0.655	0.175	0.84	Yes	0.634	0.360	1.00	Yes	1.00	**5.75**
		$U_{19} - L_{19}$	44.98	-322.73	-55	41	245	-247	-169	-95	149	53	0.081	0.365	0.45	Yes	0.044	0.201	0.25	Yes	0.705	0.134	0.84	Yes	0.683	0.316	1.00	Yes	1.00	**3.46**
		$U_{20} - L_{20}$	-----	-333.12	37	-37	162	-229	-224	-72	344	110	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.205	0.95	Yes	0.705	0.293	1.00	Yes	1.00	**2.24**

Moment (End) AI Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Diagonals	Structure 1	$U_0 - L_1$	577.17	-112.69	-116	67	20	-18	-418	-199	-40	-3	0.757	0.241	1.00	Yes	0.457	0.133	0.60	Yes	0.192	0.178	0.38	Yes	0.174	0.136	0.31	Yes	1.00	**4.82**
		$U_1 - L_2$	431.30	-142.10	-100	26	30	-24	-321	-223	-117	-54	0.776	0.221	1.00	Yes	0.427	0.122	0.55	Yes	0.326	0.203	0.53	Yes	0.301	0.128	0.43	Yes	1.00	**5.12**
		$U_2 - L_3$	394.24	-142.81	-113	17	-13	-42	-385	-493	-462	-214	0.709	0.288	1.00	Yes	0.390	0.158	0.55	Yes	0.329	0.293	0.63	Yes	0.302	0.145	0.45	Yes	1.00	**6.77**
		$U_3 - L_4$	75.61	-297.72	57	-3	-97	-131	115	241	-499	-423	0.136	0.311	0.45	Yes	0.075	0.171	0.25	Yes	0.681	0.313	1	Yes	0.630	0.167	0.80	Yes	1.00	**6.38**
		$U_4 - L_4$	539.46	-----	-6	88	-118	-18	358	292	-361	24	0.791	0.204	1.00	Yes	0.435	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.02**
		$U_4 - L_5$	683.30	-----	-150	273	-35	76	188	79	189	96	0.808	0.190	1.00	Yes	0.444	0.105	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.88**
		$U_5 - L_6$	646.03	-----	-280	260	-78	85	370	-24	297	170	0.764	0.227	1.00	Yes	0.420	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.56**
		$U_6 - L_7$	625.14	-----	-62	344	-8	116	310	215	243	175	0.739	0.252	1.00	Yes	0.406	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.74**
		$U_8 - L_9$	906.09	-----	-39	425	-12	142	-670	259	143	135	0.724	0.275	1.00	Yes	0.449	0.155	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.86**
		$U_9 - L_{10}$	1018.54	-----	-291	319	-97	85	331	292	89	104	0.814	0.185	1.00	Yes	0.504	0.104	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.18**
		$U_{10} - L_{11}$	1026.24	-----	-202	259	-74	71	0	-56	-53	-69	0.867	0.129	1.00	Yes	0.537	0.071	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.20**
		$U_{11} - L_{12}$	850.13	-----	-244	161	-79	29	-263	-280	-192	-163	0.841	0.155	1.00	Yes	0.463	0.085	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.75**
		$U_{12} - L_{13}$	620.16	-----	-191	166	-72	51	-357	-329	-229	-195	0.756	0.237	1.00	Yes	0.476	0.134	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.83**
		$U_{13} - L_{14}$	398.21	-----	-92	34	-69	0	-240	-544	-434	-535	0.716	0.276	1.00	Yes	0.394	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.45**
		$U_{15} - L_{16}$	-----	-187.21	2	-26	-59	-195	-75	-176	-1175	4	-----	-----	-----	-----	-----	-----	-----	-----	0.439	0.559	1	Yes	0.396	0.249	0.65	Yes	1.00	**11.19**
		$U_{16} - L_{15}$	401.73	-38.61	-134	92	-5	-12	-353	-352	-33	-75	0.723	0.274	1.00	Yes	0.397	0.151	0.55	Yes	0.092	0.189	0.29	Yes	0.082	0.171	0.26	Yes	1.00	**4.18**
		$U_{17} - L_{18}$	524.41	-----	-154	105	-21	3	-223	-305	-21	-88	0.769	0.228	1.00	Yes	0.423	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.57**
		$U_{18} - L_{17}$	640.77	-----	-341	263	-94	56	-257	-226	4	-43	0.758	0.240	1.00	Yes	0.417	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		$U_{19} - L_{18}$	694.51	-----	-350	257	-100	64	-366	-140	38	0	0.752	0.239	1.00	Yes	0.414	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.54**
		$U_{20} - L_{19}$	681.11	-----	-363	312	-126	104	-458	-80	-1	28	0.738	0.261	1.00	Yes	0.406	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
	Structure 2	$U_0 - L_1$	754.05	-----	-380	363	-47	56	-493	-161	-126	61	0.746	0.250	1.00	Yes	0.410	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.29**
		$U_1 - L_2$	738.90	-----	-371	286	-66	41	-630	-256	60	20	0.731	0.266	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.34**
		$U_2 - L_3$	610.36	-----	-337	256	-38	26	-471	-182	-62	-186	0.722	0.276	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.34**
		$U_3 - L_4$	555.26	-----	-185	133	-9	-3	-395	-426	-238	-223	0.740	0.258	1.00	Yes	0.407	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		$U_4 - L_5$	392.14	-78.17	-132	88	19	-25	-429	-398	-142	-88	0.705	0.293	1.00	Yes	0.388	0.161	0.55	Yes	0.193	0.226	0.42	Yes	0.165	0.169	0.34	Yes	1.00	**4.08**
		$U_5 - L_6$	357.35	-143.83	-126	61	24	-65	-602	-455	-644	-318	0.643	0.348	1.00	Yes	0.353	0.191	0.55	Yes	0.340	0.315	0.66	Yes	0.304	0.162	0.47	Yes	1.00	**5.68**
		$U_6 - L_7$	-----	-337.62	10	-31	41	-91	-214	-171	-542	-363	-----	-----	-----	-----	-----	-----	-----	-----	0.723	0.276	1	Yes	0.647	0.104	0.76	Yes	1.00	**4.48**
		$U_8 - L_7$	540.97	-----	-168	144	-193	44	74	-194	-665	46	0.690	0.308	1.00	Yes	0.434	0.176	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.21**
		$U_8 - L_9$	693.42	-----	-335	236	-125	89	-283	-432	17	-69	0.751	0.243	1.00	Yes	0.413	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.31**
		$U_{10} - L_9$	768.94	-----	-320	197	-115	96	-34	-555	46	-19	0.761	0.232	1.00	Yes	0.418	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.91**
		$U_{11} - L_{10}$	899.18	-----	-376	305	-132	123	-44	-85	145	35	0.819	0.179	1.00	Yes	0.451	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.39**
		$U_{12} - L_{11}$	887.50	-----	-351	354	-141	150	257	163	215	115	0.808	0.185	1.00	Yes	0.445	0.102	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.46**
		$U_{13} - L_{12}$	754.84	-----	-429	391	-180	173	348	203	352	183	0.747	0.252	1.00	Yes	0.411	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.22**
		$U_{14} - L_{13}$	721.39	-----	-214	448	-29	193	381	-183	468	163	0.714	0.278	1.00	Yes	0.393	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.70**
		$U_{14} - L_{15}$	610.33	-----	-144	409	56	76	249	165	30	-20	0.722	0.277	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.57**
		$U_{15} - L_{16}$	631.32	-----	-379	352	-67	72	195	173	9	34	0.746	0.250	1.00	Yes	0.411	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.75**
		$U_{16} - L_{17}$	726.26	-----	-324	383	-52	105	99	77	-6	14	0.787	0.212	1.00	Yes	0.433	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.65**
		$U_{17} - L_{18}$	691.94	-----	-310	306	-53	104	-1	-5	-27	6	0.818	0.181	1.00	Yes	0.450	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.58**
		$U_{18} - L_{19}$	565.55	-----	-268	270	-72	90	-966	-67	-74	-59	0.669	0.328	1.00	Yes	0.368	0.180	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.28**
		$U_{19} - L_{20}$	574.94	-----	-210	181	-43	52	-342	-305	-116	-68	0.733	0.258	1.00	Yes	0.403	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.07**
		$U_{20} - L_{21}$	412.51	-----	-118	104	-39	22	-315	-258	-342	-211	0.742	0.249	1.00	Yes	0.408	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.20**
		$U_{21} - L_{22}$	321.17	-181.45	-122	53	-6	-69	-380	-392	-920	-624	0.578	0.422	1.00	Yes	0.318	0.232	0.55	Yes	0.429	0.411	0.84	Yes	0.384	0.155	0.54	Yes	1.00	**9.03**
		$U_{23} - L_{22}$	349.02	-----	-112	60	-114	-55	136	-300	-773	-52	0.628	0.369	1.00	Yes	0.345	0.203	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.93**
		$U_{24} - L_{23}$	433.36	-----	-124	105	-22	21	-171	-206	46	-16	0.779	0.218	1.00	Yes	0.429	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		$U_{25} - L_{24}$	595.53	-----	-218	183	-38	45	-113	-215	103	21	0.759	0.239	1.00	Yes	0.418	0.134	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.34**
		$U_{26} - L_{25}$	674.83	-----	-297	269	-72	85	-18	-96	137	63	0.798	0.193	1.00	Yes	0.439	0.106	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.66**
		$U_{27} - L_{26}$	667.57	-----	-296	289	-90	105	231	102	185	82	0.789	0.209	1.00	Yes	0.434	0.115	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.37**
		$U_{28} - L_{27}$	703.52	-----	-317	371	-78	125	272	178	262	179	0.762	0.235	1.00	Yes	0.419	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.42**
		$U_{29} - L_{28}$	613.94	-----	-360	330	-116	114	333	-81	303	143	0.726	0.264	1.00	Yes	0.399	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.15**
		$U_{30} - L_{29}$	595.62	-----	-156	379	8	134	263	152	401	111	0.704	0.287	1.00	Yes	0.387	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.76**
		$U_{30} - L_{31}$	732.24	-----	-196	492	18	130	279	165	123	34	0.724	0.270	1.00	Yes	0.398	0.148	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		$U_{31} - L_{32}$	771.98	-----	-450	404	-122	124	180	145	53	61	0.764	0.236	1.00	Yes	0.420	0.130	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.72**
		$U_{32} - L_{33}$	913.73	-----	-358	363	-116	129	27	32	-50	-42	0.832	0.161	1.00	Yes	0.458	0.088	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.88**
		$U_{33} - L_{34}$	745.18	-----	-320	316	-113	107	-1282	-317	-158	-128	0.679	0.311	1.00	Yes	0.373	0.171	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.61**
		$U_{34} - L_{35}$	823.22	-----	-272	242	-101	90	-369	258	-193	-171	0.814	0.181	1.00	Yes	0.448	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		$U_{35} - L_{36}$	677.64	-----	-333	235	-117	88	-546	-441	-245	-186	0.734	0.260	1.00	Yes	0.404	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.55**
		$U_{36} - L_{37}$	592.96	-----	-192	158	-59	55	-314	-345	-215	-206	0.756	0.242	1.00	Yes	0.476	0.137	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.39**
		$U_{38} - L_{37}$	-----	-266.34	16	-34	-18	-136	-52	-135	-878	28	-----	-----	-----	-----	-----	-----	-----	-----	0.575	0.419	1	Yes	0.510	0.155	0.67	Yes	1.00	**7.24**
		$U_{39} - L_{38}$	387.64	-224.62	-126	63	69	-65	-255	-476	77	8	0.697	0.298	1.00	Yes	0.383	0.164	0.55	Yes	0.535	0.230	0.77	Yes	0.475	0.161	0.64	Yes	1.00	**5.53**
		$U_{40} - L_{39}$	402.62	-117.36	-134	91	29	-35	-194	-348	39	0	0.724	0.272	1.00	Yes	0.398	0.149	0.55	Yes	0.281	0.184	0.47	Yes	0.248	0.171	0.42	Yes	1.00	**4.23**
		$U_{41} - L_{40}$	584.57	-----	-190	140	-13	-5	-170	-187	27	-5	0.779	0.212	1.00	Yes	0.429	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.23**
		$U_{42} - L_{41}$	653.31	-----	-347	271	-51	30	-123	-151	-5	2	0.772	0.224	1.00	Yes	0.425	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.32**
		$U_{43} - L_{42}$	771.94	-----	-388	309	-71	45	-323	-87	-17	-44	0.764	0.228	1.00	Yes	0.420	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		$U_{44} - L_{43}$	772.26	-----	-377	368	-124	105	-405	-19	34	-11	0.764	0.235	1.00	Yes	0.420	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.50**
	Structure 3	$U_0 - L_1$	656.60	-----	-370	309	-64	67	-569	-184	-137	43	0.711	0.283	1.00	Yes	0.391	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.54**
		$U_1 - L_2$	661.73	-----	-331	234	-85	52	-686	-273	35	10	0.717	0.282	1.00	Yes	0.394	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		$U_2 - L_3$	627.10	-----	-333	251	-67	39	-278	-338	-75	-172	0.741	0.250	1.00	Yes	0.408	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.13**
		$U_3 - L_4$	507.09	-----	-151	104	-15	3	-418	-398	-217	-204	0.744	0.251	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.63**
		$U_4 - L_5$	382.72	-26.72	-127	91	-6	-8	-508	-401	-194	-132	0.688	0.309	1.00	Yes	0.379	0.170	0.55	Yes	0.063	0.225	0.29	Yes	0.057	0.162	0.22	Yes	1.00	**3.96**
		$U_5 - L_6$	-----	-75.40	0	-24	-97	-201	-240	-198	-1569	-1763	-----	-----	-----	-----	-----	-----	-----	-----	0.177	0.820	1	Yes	0.160	0.257	0.42	Yes	1.00	**12.69**
		$U_7 - L_6$	438.19	-----	-98	32	-68	-7	-81	-199	-295	-157	0.788	0.211	1.00	Yes	0.433	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.95**
		$U_8 - L_7$	641.16	-----	-196	171	-66	46	-164	-230	-29	-86	0.782	0.216	1.00	Yes	0.492	0.121	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.01**
		$U_8 - L_9$	862.56	-----	-254	170	-77	27	-13	-162	57	-39	0.853	0.142	1.00	Yes	0.469	0.078	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.81**
		$U_{10} - L_9$	1023.99	-----	-216	248	-74	68	151	43	137	57	0.865	0.134	1.00	Yes	0.535	0.075	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.83**
		$U_{11} - L_{10}$	996.56	-----	-294	310	-101	87	458	345	307	197	0.797	0.197	1.00	Yes	0.494	0.111	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.61**
		$U_{12} - L_{11}$	906.96	-----	-48	410	-16	142	-670	323	293	217	0.725	0.268	1.00	Yes	0.449	0.151	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.46**
		$U_{12} - L_{13}$	631.70	-----	-46	358	-4	107	259	196	114	92	0.747	0.251	1.00	Yes	0.411	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.40**
		$U_{13} - L_{14}$	661.89	-----	-283	290	-71	76	235	211	91	114	0.783	0.208	1.00	Yes	0.430	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.28**
		$U_{14} - L_{15}$	700.01	-----	-151	277	-31	69	45	5	37	15	0.828	0.166	1.00	Yes	0.455	0.091	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.14**
		$U_{15} - L_{16}$	498.23	-----	-3	85	-110	-17	210	250	-547	-642	0.731	0.261	1.00	Yes	0.402	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.64**
		$U_{17} - L_{16}$	-----	-318.92	56	-5	-36	-120	259	279	-502	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.729	0.265	1	Yes	0.675	0.154	0.83	Yes	1.00	**5.96**
		$U_{18} - L_{17}$	263.05	-155.31	-77	13	-54	-45	144	-431	-1466	-18	0.473	0.522	1.00	Yes	0.260	0.287	0.55	Yes	0.357	0.440	0.8	Yes	0.329	0.098	0.43	Yes	1.00	**5.44**
		$U_{19} - L_{18}$	446.11	-136.01	-100	27	34	-28	-225	-197	-121	-90	0.802	0.193	1.00	Yes	0.441	0.106	0.55	Yes	0.312	0.151	0.47	Yes	0.288	0.128	0.42	Yes	1.00	**5.21**
		$U_{20} - L_{19}$	613.59	-69.25	-78	63	-20	-1	-377	-194	31	-18	0.805	0.186	1.00	Yes	0.486	0.102	0.59	Yes	0.118	0.141	0.26	Yes	0.107	0.091	0.20	Yes	1.00	**3.98**

Moment (End) AI Inventory

Inventory Loads - HS20 Lane | Calc: BKC Date: 10/28/2009 | Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300 | LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression										Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield							
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass						
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																				
South Truss - Upper Chord	Structure 1	U_0 - U_1	73.78	-577.39	-230	184	868	-913	-167	226	674	-849	0.085	0.360	0.45	Yes	0.058	0.246	0.31	Yes	0.786	0.123	0.91	Yes	0.779	0.217	1.00	Yes	1.00	**6.48**
		U_1 - U_2	59.52	-509.38	-95	133	-321	-702	-164	159	-81	-506	0.068	0.252	0.33	Yes	0.047	0.173	0.22	Yes	0.693	0.298	1	Yes	0.687	0.167	0.86	Yes	1.00	**2.85**
		U_2 - U_3	284.14	-582.16	-48	409	-761	-198	-126	188	565	-613	0.326	0.284	0.62	Yes	0.220	0.187	0.41	Yes	0.792	0.205	1	Yes	0.785	0.181	0.97	Yes	1.00	**3.88**
		U_3 - U_4	711.31	-451.28	258	571	-417	-365	-256	6	-203	-214	0.815	0.179	1.00	Yes	0.560	0.123	0.69	Yes	0.614	0.164	0.78	Yes	0.609	0.136	0.75	Yes	1.00	**5.78**
		U_4 - U_5	687.84	-550.43	309	535	-615	-165	-117	7	-367	-169	0.788	0.208	1.00	Yes	0.541	0.142	0.69	Yes	0.749	0.207	0.96	Yes	0.742	0.146	0.89	Yes	1.00	**5.53**
		U_5 - U_6	653.28	-----	-101	828	-100	185	-269	79	-304	-206	0.749	0.248	1.00	Yes	0.505	0.162	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.68**
		U_6 - U_7	914.87	-----	273	238	37	53	1	417	70	-84	0.875	0.115	1.00	Yes	0.611	0.080	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.22**
		U_7 - U_8	1006.57	-----	-223	1535	13	764	338	689	545	590	0.697	0.303	1.00	Yes	0.486	0.207	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.67**
		U_8 - U_9	761.09	-----	1104	-173	1677	-798	243	446	740	-228	0.624	0.372	1.00	Yes	0.427	0.253	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.33**
		U_9 - U_{10}	688.09	-241.44	248	289	292	-707	1	305	568	-540	0.746	0.250	1.00	Yes	0.505	0.167	0.68	Yes	0.311	0.126	0.44	Yes	0.308	0.158	0.47	Yes	1.00	**7.07**
		U_{10} - U_{11}	68.58	-637.45	248	-173	192	-794	45	110	227	-459	0.074	0.252	0.33	Yes	0.050	0.162	0.22	Yes	0.821	0.139	0.97	Yes	0.813	0.178	1.00	Yes	1.00	**3.21**
		U_{11} - U_{12}	-----	-914.75	139	-217	-16	-803	12	93	81	-230	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.126	1	Yes	0.858	0.133	1.00	Yes	1.00	**2.10**
		U_{12} - U_{13}	-----	-1272.15	-58	-271	-499	-600	75	4	736	-464	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.135	1	Yes	0.850	0.083	0.94	Yes	1.00	**2.54**
		U_{13} - U_{14}	-----	-1424.99	-178	-486	-541	-1254	-47	-8	-71	-55	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.168	1	Yes	0.817	0.138	0.96	Yes	1.00	**3.29**
		U_{14} - U_{15}	-----	-1428.93	-404	-291	-1059	-670	35	-276	-171	-276	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.165	1	Yes	0.819	0.117	0.94	Yes	1.00	**2.59**
		U_{15} - U_{16}	-----	-1475.19	-260	-429	-734	-771	-36	-251	-316	-280	-----	-----	-----	-----	-----	-----	-----	-----	0.855	0.138	1	Yes	0.846	0.085	0.94	Yes	1.00	**2.95**
		U_{16} - U_{17}	-----	-1415.81	-371	-189	-1011	-452	25	-204	36	-219	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.176	1	Yes	0.812	0.112	0.93	Yes	1.00	**3.98**
		U_{17} - U_{18}	-----	-1103.24	-686	9	-255	-60	-229	-129	-130	72	-----	-----	-----	-----	-----	-----	-----	-----	0.874	0.120	1	Yes	0.863	0.112	0.98	Yes	1.00	**3.55**
		U_{18} - U_{19}	-----	-703.47	-655	118	-371	-50	-55	-171	572	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.198	1	Yes	0.791	0.132	0.93	Yes	1.00	**3.26**
		U_{19} - U_{20}	-----	-592.42	-888	651	-1042	-319	15	-269	-149	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.673	0.325	1	Yes	0.667	0.210	0.88	Yes	1.00	**9.53**
	Structure 2	U_0 - U_1	-----	-541.77	127	-211	2067	-1755	-29	55	1274	-508	-----	-----	-----	-----	-----	-----	-----	-----	0.644	0.242	0.89	Yes	0.640	0.351	1.00	Yes	1.00	**6.08**
		U_1 - U_2	-----	-850.02	-150	-280	-242	-919	-39	58	266	-350	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.164	1	Yes	0.820	0.139	0.96	Yes	1.00	**3.12**
		U_2 - U_3	-----	-1188.09	-146	-384	-108	-1123	-35	-34	135	-609	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.143	1	Yes	0.843	0.114	0.96	Yes	1.00	**2.75**
		U_3 - U_4	-----	-1430.91	-517	-500	-896	-1287	-122	-25	-9	-345	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.176	1	Yes	0.815	0.115	0.93	Yes	1.00	**2.35**
		U_4 - U_5	-----	-1564.06	-565	-509	-1109	-1391	-130	-71	11	-622	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.190	1	Yes	0.803	0.115	0.92	Yes	1.00	**2.31**
		U_5 - U_6	-----	-1612.75	-546	50	-1262	-837	-198	-38	-220	-440	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.157	1	Yes	0.828	0.105	0.94	Yes	1.00	**2.30**
		U_6 - U_7	-----	-1408.17	-297	-194	-1078	-1235	-170	-88	-188	-328	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.189	1	Yes	0.802	0.110	0.92	Yes	1.00	**2.12**
		U_7 - U_8	-----	-1405.94	-334	-181	-1390	-868	-79	-174	-262	-379	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.189	1	Yes	0.801	0.124	0.93	Yes	1.00	**2.13**
		U_8 - U_9	-----	-1232.22	-322	243	-1217	-312	-15	-192	-252	-309	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.154	1	Yes	0.836	0.129	0.97	Yes	1.00	**2.48**
		U_9 - U_{10}	827.32	-859.33	262	922	-989	-201	-94	-156	-305	-867	0.607	0.214	0.83	Yes	0.411	0.144	0.56	Yes	0.746	0.252	1	Yes	0.742	0.120	0.87	Yes	1.00	**5.72**
		U_{10} - U_{11}	950.45	-399.27	447	691	-741	-84	-209	-98	-605	-757	0.803	0.197	1.00	Yes	0.546	0.130	0.68	Yes	0.399	0.235	0.64	Yes	0.397	0.105	0.51	Yes	1.00	**4.80**
		U_{11} - U_{12}	922.53	-----	-446	991	-556	230	-388	-182	-608	-582	0.779	0.214	1.00	Yes	0.523	0.143	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.49**
		U_{12} - U_{13}	1219.76	-----	764	203	-654	-323	211	701	-627	-772	0.824	0.170	1.00	Yes	0.587	0.117	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.82**
		U_{13} - U_{14}	1292.78	-----	-564	3156	-217	1807	412	983	543	772	0.636	0.359	1.00	Yes	0.450	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.05**
		U_{14} - U_{15}	1255.56	-----	2496	-61	3321	-699	426	594	1023	234	0.617	0.377	1.00	Yes	0.437	0.248	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.57**
		U_{15} - U_{16}	1465.37	-----	49	424	66	-661	93	393	273	-310	0.886	0.108	1.00	Yes	0.630	0.073	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.83**
		U_{16} - U_{17}	1144.53	-----	596	301	730	-671	-82	323	287	-555	0.843	0.150	1.00	Yes	0.561	0.099	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.68**
		U_{17} - U_{18}	833.51	-125.35	433	344	363	-702	-105	285	149	-200	0.837	0.161	1.00	Yes	0.557	0.107	0.67	Yes	0.149	0.140	0.29	Yes	0.148	0.119	0.27	Yes	1.00	**3.62**
		U_{18} - U_{19}	779.07	-666.80	559	318	197	-749	-59	183	288	-598	0.782	0.215	1.00	Yes	0.513	0.138	0.66	Yes	0.792	0.139	0.94	Yes	0.787	0.127	0.92	Yes	1.00	**4.26**
		U_{19} - U_{20}	400.52	-729.85	277	176	-214	-936	-109	128	-51	-389	0.376	0.202	0.58	Yes	0.249	0.133	0.39	Yes	0.810	0.189	1	Yes	0.805	0.150	0.96	Yes	1.00	**2.78**
		U_{20} - U_{21}	349.72	-896.04	157	81	-765	-514	-69	48	582	-509	0.271	0.174	0.45	Yes	0.190	0.115	0.31	Yes	0.824	0.171	1	Yes	0.818	0.111	0.93	Yes	1.00	**2.99**
		U_{21} - U_{22}	447.86	-847.90	97	170	-605	-998	-199	-40	-35	-56	0.347	0.166	0.52	Yes	0.246	0.111	0.36	Yes	0.779	0.212	1	Yes	0.774	0.145	0.92	Yes	1.00	**3.76**
		U_{22} - U_{23}	294.20	-868.70	87	17	-873	-643	-92	-139	-194	-186	0.228	0.148	0.38	Yes	0.162	0.099	0.27	Yes	0.799	0.195	1	Yes	0.793	0.127	0.92	Yes	1.00	**2.86**
		U_{23} - U_{24}	749.85	-855.17	309	338	-905	-616	20	-8	-698	555	0.582	0.207	0.79	Yes	0.407	0.137	0.55	Yes	0.786	0.207	1	Yes	0.780	0.131	0.92	Yes	1.00	**5.51**
		U_{24} - U_{25}	880.78	-679.58	471	500	-743	-268	30	-9	-355	-78	0.826	0.167	1.00	Yes	0.547	0.109	0.66	Yes	0.754	0.140	0.9	Yes	0.750	0.119	0.87	Yes	1.00	**5.98**
		U_{25} - U_{26}	-----	-484.87	-1558	2422	-1295	-729	-1421	-180	-466	-1387	-----	-----	-----	-----	-----	-----	-----	-----	0.576	0.418	1	Yes	0.573	0.411	0.99	Yes	1.00	**19.48**
		U_{26} - U_{27}	721.97	-----	-433	905	-514	98	-778	67	-356	-629	0.725	0.267	1.00	Yes	0.483	0.177	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.30**
		U_{27} - U_{28}	1109.47	-----	-322	1154	-227	359	-199	-37	-220	-302	0.818	0.177	1.00	Yes	0.544	0.116	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.50**
		U_{28} - U_{29}	1239.48	-----	1099	338	-645	-255	841	1467	-752	-826	0.749	0.249	1.00	Yes	0.533	0.171	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.51**
		U_{29} - U_{30}	1290.92	-----	-321	3074	-7	1714	528	1052	810	1030	0.635	0.356	1.00	Yes	0.449	0.234	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.97**
		U_{30} - U_{31}	1268.62	-----	2428	-287	3431	-947	608	553	773	95	0.624	0.370	1.00	Yes	0.442	0.243	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.36**
		U_{31} - U_{32}	1302.65	-----	95	407	-198	-571	198	397	477	-229	0.880	0.117	1.00	Yes	0.627	0.081	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.36**
		U_{32} - U_{33}	942.63	-214.85	631	196	438	-866	15	240	322	-593	0.796	0.195	1.00	Yes	0.535	0.130	0.67	Yes	0.215	0.105	0.32	Yes	0.214	0.122	0.34	Yes	1.00	**3.83**
		U_{33} - U_{34}	695.40	-841.67	522	213	-24	-1095	-18	228	284	-313	0.587	0.193	0.79	Yes	0.400	0.125	0.53	Yes	0.842	0.141	0.99	Yes	0.836	0.155	1.00	Yes	1.00	**4.00**
		U_{34} - U_{35}	125.51	-999.54	408	-174	-82	-1065	46	47	246	-452	0.092	0.179	0.28	Yes	0.062	0.121	0.19	Yes	0.868	0.126	1	Yes	0.863	0.130	1.00	Yes	1.00	**2.53**
		U_{35} - U_{36}	-----	-1265.07	114	-452	-321	-1091	-15	93	78	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.130	1	Yes	0.858	0.116	0.98	Yes	1.00	**2.09**
		U_{36} - U_{37}	-----	-1445.83	-283	-306	-880	-1293	-18	-118	11	-256	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.169	1	Yes	0.823	0.115	0.94	Yes	1.00	**1.94**
		U_{37} - U_{38}	-----	-1424.56	-197	-421	-1179	-1062	-94	-194	-170	-340	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.177	1	Yes	0.811	0.105	0.92	Yes	1.00	**1.87**
		U_{38} - U_{39}	-----	-1640.37	-125	-615	-939	-1213	14	-201	-228	-326	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.148	1	Yes	0.842	0.101	0.95	Yes	1.00	**2.22**
		U_{39} - U_{40}	-----	-1585.85	-617	-513	-1415	-929	26	-104	-287	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.173	1	Yes	0.814	0.117	0.94	Yes	1.00	**2.33**
		U_{40} - U_{41}	-----	-1467.28	-492	-482	-1173	-822	107	-148	-110	-191	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.154	1	Yes	0.835	0.105	0.95	Yes	1.00	**2.56**
		U_{41} - U_{42}	-----	-1235.95	-1109	-40	-892	-144	-109	-101	-130	-108	-----	-----	-----	-----	-----	-----	-----	-----	0.882	0.115	1	Yes	0.877	0.113	1.00	Yes	1.00	**3.16**
		U_{42} - U_{43}	-----	-877.01	-893	69	-445	-58	-171	-233	459	-173	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.141	1	Yes	0.846	0.135	0.99	Yes	1.00	**3.58**
		U_{43} - U_{44}	-----	-636.62	-592	257	-859	-593	1	-206	-12	173	-----	-----	-----	-----	-----	-----	-----	-----	0.756	0.237	1	Yes	0.752	0.146	0.90	Yes	1.00	**11.75**
	Structure 3	U_0 - U_1	-----	-540.99	357	-291	1915	-1483	74	78	1351	-858	-----	-----	-----	-----	-----	-----	-----	-----	0.614	0.290	0.91	Yes	0.609	0.385	1.00	Yes	1.00	**7.53**
		U_1 - U_2	-----	-730.18	-80	-222	-63	-698	-21	12	188	-337	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.163	1	Yes	0.822	0.141	0.97	Yes	1.00	**3.00**
		U_2 - U_3	-----	-1089.04	-53	-237	34	-598	-30	-47	143	-695	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.133	1	Yes	0.852	0.097	0.95	Yes	1.00	**2.88**
		U_3 - U_4	-----	-1371.92	-219	-371	-457	-1277	-102	-37	-214	-560	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.201	1	Yes	0.786	0.141	0.93	Yes	1.00	**2.66**
		U_4 - U_5	-----	-1432.98	-438	-143	-1078	-473	-89	-49	537	-636	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.163	1	Yes	0.821	0.119	0.95	Yes	1.00	**2.64**
		U_5 - U_6	-----	-1367.61	-238	-347	-645	-1174	-177	-139	-228	-171	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.198	1	Yes	0.784	0.130	0.92	Yes	1.00	**3.43**
		U_6 - U_7	-----	-1398.79	-493	-157	-1229	-512	-121	-300	-260	-365	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.182	1	Yes	0.802	0.136	0.94	Yes	1.00	**2.75**
		U_7 - U_8	-----	-1218.95	-237	24	-702	-206	-106	-333	-368	-487	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.169	1	Yes	0.814	0.097	0.92	Yes	1.00	**3.06**
		U_8 - U_9	100.37	-771.37	2	402	-695	-9	-255	-171	-651	-772	0.080	0.207	0.29	Yes	0.054	0.139	0.20	Yes	0.730	0.265	1	Yes	0.724	0.115	0.84	Yes	1.00	**6.36**
		U_9 - U_{10}	-----	-399.42	-2149	1713	-902	64	-1375	-370	-1411	-1003	-----	-----	-----	-----	-----	-----	-----	-----	0.514	0.456	0.97	Yes	0.510	0.481	1.00	Yes	1.00	**21.69**
		U_{10} - U_{11}	710.08	-----	-21	479	30	109	-724	314	-30	-69	0.770	0.224	1.00	Yes	0.522	0.150	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.76**
		U_{11} - U_{12}	828.44	-----	-451	1462	-164	758	-30	507	385	545	0.679	0.312	1.00	Yes	0.464	0.212	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.70**
		U_{12} - U_{13}	1002.38	-----	1202	-9	1684	-584	64	461	375	-118	0.695	0.302	1.00	Yes	0.484	0.206	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.70**
		U_{13} - U_{14}	854.88	-----	218	365	13	-462	-97	373	-36	-563	0.818	0.176	1.00	Yes	0.571	0.121	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.08**
		U_{14} - U_{15}	642.45	-280.18	459	223	25	-368	-54	262	908	-614	0.736	0.262	1.00	Yes	0.497	0.174	0.68	Yes	0.381	0.177	0.56	Yes	0.378	0.109	0.49	Yes	1.00	**4.23**
		U_{15} - U_{16}	607.75	-612.73	462	294	-215	-702	-68	318	15	66	0.697	0.221	0.92	Yes	0.478	0.151	0.63	Yes	0.834	0.166	1	Yes	0.826	0.167	1.00	Yes	1.00	**6.04**
		U_{16} - U_{17}	505.60	-643.03	479	122	-402	-527	234	-29	76	-140	0.580	0.165	0.75	Yes	0.398	0.113	0.52	Yes	0.875	0.093	0.97	Yes	0.867	0.125	1.00	Yes	1.00	**5.12**
		U_{17} - U_{18}	213.61	-644.83	335	-144	-411	-530	87	54	-48	-87	0.245	0.141	0.39	Yes	0.165	0.091	0.26	Yes	0.877	0.090	0.97	Yes	0.870	0.126	1.00	Yes	1.00	**4.28**
		U_{18} - U_{19}	169.18	-518.63	177	-47	-528	-229	247	-180	676	-488	0.194	0.240	0.44	Yes	0.133	0.164	0.30	Yes	0.706	0.286	1	Yes	0.699	0.126	0.83	Yes	1.00	**7.57**
		U_{19} - U_{20}	-----	-542.13	-283	121	-493	-801	-224	-153	-180	-52	-----	-----	-----	-----	-----	-----	-----	-----	0.738	0.259	1	Yes	0.731	0.191	0.93	Yes	1.00	**11.14**

Moment (End) AI Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Lower Chord	Structure 1	L_0 - L_1	26.60	-205.35	-287	154	643	-1082	63	229	-514	-1888	0.041	0.730	0.78	Yes	0.024	0.435	0.46	Yes	0.373	0.619	1	Yes	0.370	0.325	0.70	Yes	1.00	**18.32**
		L_1 - L_2	380.70	-51.61	-21	65	87	-802	398	-181	-823	469	0.583	0.417	1.00	Yes	0.355	0.272	0.63	Yes	0.094	0.240	0.34	Yes	0.093	0.241	0.34	Yes	1.00	**3.98**
		L_2 - L_3	642.32	-173.10	-9	111	-735	-511	-194	133	211	-515	0.739	0.260	1.00	Yes	0.428	0.154	0.59	Yes	0.236	0.233	0.47	Yes	0.234	0.177	0.42	Yes	1.00	**3.64**
		L_3 - L_4	665.43	-402.70	49	441	-536	-350	346	-280	-638	287	0.766	0.232	1.00	Yes	0.455	0.146	0.61	Yes	0.550	0.147	0.7	Yes	0.545	0.130	0.68	Yes	1.00	**4.34**
		L_4 - L_5	-----	-547.73	-119	606	-288	284	329	-38	-227	216	-----	-----	-----	-----	-----	-----	-----	-----	0.842	0.146	0.99	Yes	0.834	0.160	1.00	Yes	1.00	**4.14**
		L_5 - L_6	-----	-735.66	14	661	-40	316	70	-197	53	-237	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.133	1	Yes	0.849	0.146	1.00	Yes	1.00	**2.63**
		L_6 - L_7	-----	-1175.36	-184	210	235	-100	-24	385	-253	238	-----	-----	-----	-----	-----	-----	-----	-----	0.957	0.043	1	Yes	0.946	0.037	0.99	Yes	1.00	**3.59**
		L_7 - L_8	-----	-1230.19	-68	1298	-31	707	353	556	405	268	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.209	1	Yes	0.779	0.172	0.96	Yes	1.00	**2.26**
		L_8 - L_9	-----	-1247.85	926	-22	1215	-106	219	315	526	237	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.193	1	Yes	0.790	0.161	0.96	Yes	1.00	**2.76**
		L_9 - L_{10}	-----	-1083.08	138	67	717	-759	384	-249	-481	351	-----	-----	-----	-----	-----	-----	-----	-----	0.881	0.060	0.95	Yes	0.872	0.119	1.00	Yes	1.00	**6.60**
		L_{10} - L_{11}	-----	-531.89	494	-56	330	-713	-289	41	-150	-202	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.129	0.95	Yes	0.810	0.189	1.00	Yes	1.00	**5.47**
		L_{11} - L_{12}	515.92	-86.92	345	-238	326	-849	132	-87	-563	501	0.668	0.323	1.00	Yes	0.401	0.209	0.61	Yes	0.134	0.136	0.27	Yes	0.132	0.225	0.36	Yes	1.00	**3.44**
		L_{12} - L_{13}	1065.94	-----	47	-161	-430	-550	-158	122	-48	-510	0.841	0.157	1.00	Yes	0.538	0.096	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.24**
		L_{13} - L_{14}	1320.00	-----	181	-527	-105	-1233	147	18	-545	453	0.776	0.215	1.00	Yes	0.503	0.133	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.16**
		L_{14} - L_{15}	1598.88	-----	-568	-152	-1479	-405	-148	164	446	19	0.781	0.210	1.00	Yes	0.508	0.127	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.79**
		L_{15} - L_{16}	1725.04	-----	-303	-362	-923	-1036	117	-133	-1	333	0.843	0.148	1.00	Yes	0.541	0.087	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.31**
		L_{16} - L_{17}	1290.57	-----	-1077	118	-449	25	233	-140	-146	118	0.816	0.179	1.00	Yes	0.529	0.110	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.03**
		L_{17} - L_{18}	963.89	-----	-605	86	-374	-38	-246	-152	-103	-300	0.839	0.155	1.00	Yes	0.537	0.094	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.22**
		L_{18} - L_{19}	458.87	-----	-859	469	-270	198	4	-89	-158	153	0.702	0.291	1.00	Yes	0.475	0.181	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.07**
		L_{19} - L_{20}	401.01	-134.74	-745	425	-316	86	-125	-28	312	70	0.678	0.315	1.00	Yes	0.418	0.186	0.61	Yes	0.270	0.199	0.47	Yes	0.268	0.243	0.52	Yes	1.00	**6.35**
	Structure 2	L_0 - L_1	70.78	-431.52	-99	-49	514	-1717	36	124	-279	-969	0.086	0.509	0.60	Yes	0.051	0.322	0.38	Yes	0.620	0.375	1	Yes	0.617	0.349	0.97	Yes	1.00	**11.84**
		L_1 - L_2	451.29	-----	125	-231	597	-1480	169	-114	-892	730	0.548	0.448	1.00	Yes	0.326	0.283	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.80**
		L_2 - L_3	1040.24	-----	-77	-213	93	-970	-80	143	293	-123	0.820	0.171	1.00	Yes	0.538	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		L_3 - L_4	1352.99	-----	-27	-450	-7	-1388	190	-33	-399	487	0.795	0.201	1.00	Yes	0.535	0.126	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.69**
		L_4 - L_5	1808.92	-----	-416	-346	-1092	-1237	-96	157	506	83	0.843	0.151	1.00	Yes	0.558	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.62**
		L_5 - L_6	1891.69	-----	-203	-418	-727	-1753	197	-96	-142	473	0.812	0.185	1.00	Yes	0.545	0.114	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.28**
		L_6 - L_7	1897.95	-----	-525	-173	-1812	-1377	-160	221	362	-562	0.803	0.194	1.00	Yes	0.534	0.115	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.95**
		L_7 - L_8	1386.16	-55.76	-290	413	-1337	-407	226	-138	-596	333	0.795	0.196	1.00	Yes	0.522	0.118	0.64	Yes	0.038	0.146	0.19	Yes	0.038	0.148	0.19	Yes	1.00	**2.79**
		L_8 - L_9	1107.68	-1048.18	245	844	-948	159	-50	217	-35	46	0.775	0.148	0.93	Yes	0.522	0.093	0.62	Yes	0.869	0.069	0.94	Yes	0.863	0.128	1.00	Yes	1.00	**6.25**
		L_9 - L_{10}	457.27	-814.80	-108	865	-594	59	137	-175	-127	-125	0.408	0.159	0.57	Yes	0.238	0.099	0.34	Yes	0.861	0.072	0.94	Yes	0.856	0.138	1.00	Yes	1.00	**3.73**
		L_{10} - L_{11}	80.17	-728.88	-356	812	-566	433	405	53	-175	-227	0.080	0.197	0.28	Yes	0.047	0.122	0.17	Yes	0.862	0.106	0.97	Yes	0.856	0.142	1.00	Yes	1.00	**3.31**
		L_{11} - L_{12}	-----	-1007.30	-331	1271	-369	662	112	-279	-163	-576	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.152	0.99	Yes	0.826	0.173	1.00	Yes	1.00	**2.25**
		L_{12} - L_{13}	-----	-1495.41	-485	-214	173	-842	6	259	-355	36	-----	-----	-----	-----	-----	-----	-----	-----	0.910	0.088	1	Yes	0.902	0.085	0.99	Yes	1.00	**3.42**
		L_{13} - L_{14}	-----	-1501.01	-941	2707	-530	1557	189	371	504	462	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.190	0.96	Yes	0.755	0.236	1.00	Yes	1.00	**1.88**
		L_{14} - L_{15}	-----	-1507.01	1625	-531	2670	-891	356	303	377	221	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.178	0.95	Yes	0.758	0.233	1.00	Yes	1.00	**1.68**
		L_{15} - L_{16}	-----	-1508.15	-889	175	-380	-366	136	-264	-28	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.910	0.082	1	Yes	0.902	0.088	1.00	Yes	1.00	**3.87**
		L_{16} - L_{17}	-----	-1141.41	1175	145	1341	-655	-343	-6	-101	-407	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.135	0.98	Yes	0.831	0.165	1.00	Yes	1.00	**5.14**
		L_{17} - L_{18}	-----	-833.86	458	269	741	-724	130	-246	-422	376	-----	-----	-----	-----	-----	-----	-----	-----	0.882	0.075	0.96	Yes	0.876	0.118	1.00	Yes	1.00	**4.02**
		L_{18} - L_{19}	-----	-647.85	682	123	345	-579	-239	38	270	-82	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.109	0.98	Yes	0.863	0.132	1.00	Yes	1.00	**3.61**
		L_{19} - L_{20}	533.60	-581.38	504	284	283	-1150	179	-218	-551	664	0.604	0.323	0.93	Yes	0.358	0.203	0.57	Yes	0.780	0.114	0.9	Yes	0.775	0.222	1.00	Yes	1.00	**4.39**
		L_{20} - L_{21}	967.96	-450.30	438	74	-809	-999	-189	42	7	-717	0.772	0.223	1.00	Yes	0.506	0.137	0.65	Yes	0.425	0.181	0.61	Yes	0.422	0.146	0.57	Yes	1.00	**4.19**
		L_{21} - L_{22}	946.94	-277.75	182	15	-592	-1301	143	-189	-486	449	0.755	0.242	1.00	Yes	0.505	0.153	0.66	Yes	0.262	0.192	0.46	Yes	0.261	0.190	0.46	Yes	1.00	**3.51**
		L_{22} - L_{23}	911.34	-339.00	69	187	-1492	-380	-75	191	446	-51	0.727	0.266	1.00	Yes	0.486	0.167	0.66	Yes	0.320	0.212	0.54	Yes	0.318	0.218	0.54	Yes	1.00	**3.95**
		L_{23} - L_{24}	996.45	-901.28	344	722	-1004	-593	167	-180	-292	467	0.795	0.197	1.00	Yes	0.521	0.119	0.65	Yes	0.851	0.132	0.99	Yes	0.846	0.147	1.00	Yes	1.00	**8.11**
		L_{24} - L_{25}	650.08	-3.84	-819	694	-517	156	641	-307	-83	70	0.736	0.256	1.00	Yes	0.436	0.160	0.60	Yes	0.005	0.090	0.1	Yes	0.005	0.158	0.17	Yes	1.00	**5.40**
		L_{25} - L_{26}	356.15	-601.04	-438	1027	-297	142	-74	50	-34	-116	0.403	0.216	0.62	Yes	0.233	0.129	0.37	Yes	0.806	0.123	0.93	Yes	0.801	0.198	1.00	Yes	1.00	**4.95**
		L_{26} - L_{27}	-----	-836.40	-210	735	195	388	124	65	-86	318	-----	-----	-----	-----	-----	-----	-----	-----	0.884	0.097	0.99	Yes	0.878	0.118	1.00	Yes	1.00	**2.88**
		L_{27} - L_{28}	-----	-1124.62	-213	1446	-219	746	167	-46	57	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.142	0.97	Yes	0.819	0.178	1.00	Yes	1.00	**2.44**
		L_{28} - L_{29}	-----	-1436.31	-61	-279	104	-1374	100	308	-40	74	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.132	1	Yes	0.859	0.137	1.00	Yes	1.00	**4.78**
		L_{29} - L_{30}	-----	-1498.61	-1085	2778	-649	1489	220	363	634	721	-----	-----	-----	-----	-----	-----	-----	-----	0.761	0.202	0.97	Yes	0.754	0.243	1.00	Yes	1.00	**2.06**
		L_{30} - L_{31}	-----	-1529.82	1748	-548	2535	-875	511	408	241	60	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.180	0.96	Yes	0.770	0.221	1.00	Yes	1.00	**1.31**
		L_{31} - L_{32}	-----	-1511.62	-589	183	-287	-761	210	-271	-86	292	-----	-----	-----	-----	-----	-----	-----	-----	0.912	0.085	1	Yes	0.904	0.076	0.98	Yes	1.00	**4.26**
		L_{32} - L_{33}	-----	-1047.18	994	-98	860	-602	-301	23	86	-65	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.109	0.98	Yes	0.859	0.135	1.00	Yes	1.00	**2.70**
		L_{33} - L_{34}	-----	-740.13	579	-6	582	-690	91	-130	-214	316	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.064	0.94	Yes	0.869	0.121	1.00	Yes	1.00	**2.48**
		L_{34} - L_{35}	566.47	-771.71	848	-94	172	-1169	-203	86	384	-119	0.506	0.233	0.74	Yes	0.294	0.144	0.44	Yes	0.816	0.110	0.93	Yes	0.810	0.187	1.00	Yes	1.00	**4.51**
		L_{35} - L_{36}	1082.40	-403.17	628	-99	255	-1237	160	-135	-511	731	0.757	0.236	1.00	Yes	0.510	0.149	0.66	Yes	0.334	0.133	0.47	Yes	0.332	0.167	0.50	Yes	1.00	**4.16**
		L_{36} - L_{37}	1378.71	-----	325	-242	-527	-1477	-198	148	502	-488	0.791	0.204	1.00	Yes	0.519	0.122	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.12**
		L_{37} - L_{38}	1815.77	-----	-296	-616	-1604	-1873	117	-181	-1013	531	0.768	0.227	1.00	Yes	0.511	0.137	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.37**
		L_{38} - L_{39}	1836.88	-----	-566	-213	-1855	-697	-106	174	633	139	0.788	0.204	1.00	Yes	0.529	0.126	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.66**
		L_{39} - L_{40}	1815.21	-----	-403	-296	-1385	-949	135	-117	129	323	0.846	0.153	1.00	Yes	0.560	0.091	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.57**
		L_{40} - L_{41}	1373.88	-----	-1326	103	-1155	-48	117	-252	225	-169	0.815	0.178	1.00	Yes	0.550	0.114	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.10**
		L_{41} - L_{42}	1031.63	-----	-1008	205	-212	-83	-207	-72	142	-68	0.824	0.171	1.00	Yes	0.542	0.099	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.84**
		L_{42} - L_{43}	578.95	-----	-1289	585	-270	141	198	12	-135	156	0.703	0.295	1.00	Yes	0.418	0.190	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.02**
		L_{43} - L_{44}	128.04	-264.19	-3051	1339	74	-137	383	111	-57	-16	0.156	0.684	0.84	Yes	0.092	0.441	0.54	Yes	0.380	0.426	0.81	Yes	0.378	0.621	1.00	Yes	1.00	**25.13**
	Structure 3	L_0 - L_1	-----	-444.73	45	-179	304	-633	27	124	-41	-186	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.142	0.95	Yes	0.801	0.190	1.00	Yes	1.00	**4.64**
		L_1 - L_2	162.18	-39.17	136	-187	960	-1695	161	-114	-740	1158	0.248	0.749	1.00	Yes	0.168	0.477	0.65	Yes	0.071	0.683	0.76	Yes	0.071	0.509	0.58	Yes	1.00	**13.20**
		L_2 - L_3	889.16	-----	-18	-201	186	-755	-64	168	579	-109	0.774	0.220	1.00	Yes	0.496	0.134	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.89**
		L_3 - L_4	1146.73	-----	19	-407	118	-1326	192	-4	-342	825	0.725	0.268	1.00	Yes	0.470	0.166	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.33**
		L_4 - L_5	1638.60	-----	-386	-249	-1282	-927	-38	223	219	-632	0.801	0.199	1.00	Yes	0.514	0.118	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.26**
		L_5 - L_6	1595.09	-----	-141	-459	-562	-1408	254	-31	-425	620	0.779	0.213	1.00	Yes	0.506	0.130	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		L_6 - L_7	1307.58	-----	-1326	332	-944	120	548	-68	-203	20	0.769	0.228	1.00	Yes	0.498	0.140	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.75**
		L_7 - L_8	1109.34	-78.96	-89	187	-539	-181	145	-198	-144	146	0.875	0.119	1.00	Yes	0.560	0.071	0.64	Yes	0.074	0.097	0.18	Yes	0.073	0.096	0.17	Yes	1.00	**5.27**
		L_8 - L_9	579.61	-----	-729	632	-485	245	292	-320	-176	-90	0.751	0.249	1.00	Yes	0.450	0.162	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.96**
		L_9 - L_{10}	79.19	-538.39	-375	662	-280	222	-11	-95	-64	-342	0.103	0.235	0.34	Yes	0.060	0.141	0.21	Yes	0.828	0.088	0.92	Yes	0.820	0.175	1.00	Yes	1.00	**4.45**
		L_{10} - L_{11}	-----	-1103.13	-543	682	121	-129	169	298	-410	-360	-----	-----	-----	-----	-----	-----	-----	-----	0.898	0.063	0.97	Yes	0.888	0.107	1.00	Yes	1.00	**7.40**
		L_{11} - L_{12}	-----	-1251.98	-89	1311	-46	697	93	157	357	136	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.192	1	Yes	0.793	0.174	0.97	Yes	1.00	**2.52**
		L_{12} - L_{13}	-----	-1135.62	1055	-16	1326	-96	-94	80	19	2	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.268	1	Yes	0.719	0.176	0.90	Yes	1.00	**2.80**
		L_{13} - L_{14}	-----	-1108.89	19	212	314	-540	227	-260	-148	175	-----	-----	-----	-----	-----	-----	-----	-----	0.903	0.095	1	Yes	0.893	0.085	0.98	Yes	1.00	**4.52**
		L_{14} - L_{15}	-----	-715.31	565	103	156	-275	-256	76	-179	-576	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.145	1	Yes	0.839	0.128	0.97	Yes	1.00	**2.97**
		L_{15} - L_{16}	190.26	-558.38	481	145	177	-509	259	-223	-651	527	0.246	0.251	0.50	Yes	0.148	0.159	0.31	Yes	0.858	0.133	1	Yes	0.851	0.135	0.99	Yes	1.00	**3.54**
		L_{16} - L_{17}	683.64	-267.80	389	-36	-547	-465	-171	163	487	-116	0.786	0.210	1.00	Yes	0.467	0.133	0.61	Yes	0.366	0.170	0.54	Yes	0.362	0.132	0.50	Yes	1.00	**4.75**
		L_{17} - L_{18}	701.46	-141.64	96	-72	-622	-519	96	-109	-222	117	0.807	0.186	1.00	Yes	0.467	0.111	0.58	Yes	0.193	0.198	0.4	Yes	0.192	0.150	0.35	Yes	1.00	**5.46**
		L_{18} - L_{19}	473.86	-----	-679	78	-34	-87	231	155	-325	79	0.725	0.274	1.00	Yes	0.442	0.182	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.43**
		L_{19} - L_{20}	236.21	-76.37	-1401	1404	356	-471	-992	-269	204	56	0.362	0.634	1.00	Yes	0.213	0.383	0.60	Yes	0.139	0.448	0.59	Yes	0.138	0.421	0.56	Yes	1.00	**33.32**

Moment (End) AI Inventory

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression											
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in	-----	-----	-----	-----	-----	-----	-----	-----	0.668	0.324	1	Yes	0.633	0.194	0.83	Yes	1.00	**1.54**
South Truss - Verticals	Structure 1	U_0 - L_0			-----	-299.00	-57	152	-8	42	-779	-250	232	74	-----	-----	-----	-----	-----	-----	-----	-----	0.668	0.324	1	Yes	0.633	0.194	0.83	Yes	1.00	**1.54**
		U_1 - L_1			41.38	-305.99	-235	226	43	-35	-939	-388	610	209	0.074	0.572	0.65	Yes	0.041	0.315	0.36	Yes	0.669	0.326	1	Yes	0.647	0.300	0.95	Yes	1.00	**3.18**
		U_2 - L_2			68.71	-133.74	-28	60	66	-71	-2705	-817	747	242	0.124	0.874	1.00	Yes	0.068	0.481	0.55	Yes	0.292	0.670	0.97	Yes	0.283	0.091	0.38	Yes	1.00	**2.40**
		U_3 - L_3			217.02	-----	36	-30	195	-205	-1174	-365	-448	-454	0.390	0.601	1.00	Yes	0.215	0.331	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.59**
		U_4 - L_4			-----	-185.78	74	-75	365	-376	686	333	-593	-227	-----	-----	-----	-----	-----	-----	-----	-----	0.408	0.584	1	Yes	0.393	0.481	0.88	Yes	1.00	**8.82**
		U_5 - L_5			-----	-360.82	79	-85	180	-198	1099	627	157	214	-----	-----	-----	-----	-----	-----	-----	-----	0.653	0.338	1	Yes	0.622	0.201	0.83	Yes	1.00	**2.65**
		U_6 - L_6			-----	-423.91	78	-66	171	-179	1458	726	-1340	-318	-----	-----	-----	-----	-----	-----	-----	-----	0.642	0.351	1	Yes	0.608	0.157	0.77	Yes	1.00	**2.40**
		U_7 - L_7			-----	-326.12	119	-133	231	-254	949	246	493	100	-----	-----	-----	-----	-----	-----	-----	-----	0.545	0.450	1	Yes	0.503	0.250	0.76	Yes	1.00	**1.55**
		U_8 - L_8			-----	-1231.18	-357	423	150	-187	-997	-485	768	96	-----	-----	-----	-----	-----	-----	-----	-----	0.892	0.107	1	Yes	0.857	0.079	0.94	Yes	1.00	**4.34**
		U_9 - L_9			-----	-654.09	-408	455	-230	262	-370	-125	588	221	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.176	0.96	Yes	0.739	0.253	1.00	Yes	1.00	**2.08**
		U_{10} - L_{10}			-----	-785.74	-341	375	-163	144	-166	50	696	311	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.179	1	Yes	0.775	0.194	0.97	Yes	1.00	**3.15**
		U_{11} - L_{11}			-----	-662.94	-381	481	-166	217	-729	-119	622	359	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.193	0.99	Yes	0.772	0.223	1.00	Yes	1.00	**2.92**
		U_{12} - L_{12}			-----	-423.46	-210	226	-137	138	-1965	-533	664	369	-----	-----	-----	-----	-----	-----	-----	-----	0.612	0.383	1	Yes	0.581	0.193	0.78	Yes	1.00	**1.83**
		U_{13} - L_{13}			-----	-319.79	-174	200	-85	102	-816	-54	546	251	-----	-----	-----	-----	-----	-----	-----	-----	0.647	0.352	1	Yes	0.613	0.228	0.85	Yes	1.00	**3.34**
		U_{14} - L_{14}			-----	-159.95	-104	120	-9	11	-2098	-606	-1784	-525	-----	-----	-----	-----	-----	-----	-----	-----	0.357	0.640	1	Yes	0.338	0.154	0.50	Yes	1.00	**7.14**
		U_{15} - L_{15}			30.94	-256.30	-31	27	176	-201	456	96	-1307	-415	0.056	0.635	0.70	Yes	0.031	0.349	0.39	Yes	0.574	0.417	1	Yes	0.542	0.257	0.80	Yes	1.00	**5.39**
		U_{16} - L_{16}			-----	-317.98	37	-42	238	-250	485	106	-666	-199	-----	-----	-----	-----	-----	-----	-----	-----	0.717	0.272	0.99	Yes	0.673	0.319	1.00	Yes	1.00	**4.24**
		U_{17} - L_{17}			-----	-418.95	77	-90	199	-220	505	197	-104	-11	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.211	1	Yes	0.723	0.223	0.95	Yes	1.00	**2.67**
		U_{18} - L_{18}			-----	-460.66	179	-185	373	-386	684	174	465	134	-----	-----	-----	-----	-----	-----	-----	-----	0.675	0.323	1	Yes	0.641	0.219	0.86	Yes	1.00	**2.61**
		U_{19} - L_{19}			-----	-563.71	186	-199	403	-428	596	119	569	95	-----	-----	-----	-----	-----	-----	-----	-----	0.704	0.289	1	Yes	0.656	0.199	0.86	Yes	1.00	**3.05**
		U_{20} - L_{20}			-----	-447.86	236	-283	348	-407	437	57	386	51	-----	-----	-----	-----	-----	-----	-----	-----	0.654	0.343	1	Yes	0.573	0.215	0.79	Yes	1.00	**1.52**
	Structure 2	U_0 - L_0			-----	-641.90	-256	443	-155	257	-860	-146	61	10	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.228	1	Yes	0.688	0.188	0.88	Yes	1.00	**1.62**
		U_1 - L_1			-----	-709.32	-544	547	-188	196	-423	-106	619	151	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.145	0.96	Yes	0.760	0.232	1.00	Yes	1.00	**2.71**
		U_2 - L_2			-----	-597.84	-433	458	-135	150	-392	159	619	266	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.175	0.98	Yes	0.762	0.234	1.00	Yes	1.00	**2.50**
		U_3 - L_3			-----	-458.67	-207	227	-66	76	-227	136	546	255	-----	-----	-----	-----	-----	-----	-----	-----	0.781	0.211	1	Yes	0.719	0.207	0.93	Yes	1.00	**2.07**
		U_4 - L_4			-----	-318.09	-182	196	-3	14	-613	9	574	224	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.272	1	Yes	0.673	0.250	0.93	Yes	1.00	**2.79**
		U_5 - L_5			115.01	-254.84	-135	167	89	-84	-1144	-160	579	168	0.207	0.545	0.76	Yes	0.114	0.300	0.42	Yes	0.576	0.416	1	Yes	0.539	0.214	0.76	Yes	1.00	**4.29**
		U_6 - L_6			196.68	-----	-52	58	119	-131	-1631	-365	598	162	0.354	0.640	1.00	Yes	0.195	0.352	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.97**
		U_7 - L_7			-----	-176.34	56	-63	246	-286	-256	-114	-746	-169	-----	-----	-----	-----	-----	-----	-----	-----	0.398	0.596	1	Yes	0.373	0.365	0.74	Yes	1.00	**8.88**
		U_8 - L_8			-----	-466.53	169	-184	344	-367	611	183	-590	-236	-----	-----	-----	-----	-----	-----	-----	-----	0.676	0.191	0.87	Yes	0.672	0.321	1.00	Yes	1.00	**2.77**
		U_9 - L_9			-----	-693.64	278	-280	564	-587	1046	567	-541	-160	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.205	0.98	Yes	0.743	0.249	1.00	Yes	1.00	**3.27**
		U_{10} - L_{10}			-----	-753.26	236	-235	517	-523	1157	715	-213	95	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.251	1	Yes	0.704	0.231	0.94	Yes	1.00	**2.88**
		U_{11} - L_{11}			-----	-725.34	227	-219	442	-452	1200	692	392	376	-----	-----	-----	-----	-----	-----	-----	-----	0.730	0.261	1	Yes	0.678	0.199	0.88	Yes	1.00	**2.40**
		U_{12} - L_{12}			-----	-724.84	183	-164	415	-413	1485	652	746	443	-----	-----	-----	-----	-----	-----	-----	-----	0.695	0.304	1	Yes	0.628	0.178	0.81	Yes	1.00	**2.37**
		U_{13} - L_{13}			-----	-621.47	218	-216	518	-512	1171	308	110	-14	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.303	1	Yes	0.599	0.248	0.85	Yes	1.00	**2.58**
		U_{14} - L_{14}			-----	-1153.80	-494	456	523	-501	-1335	-712	820	90	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.148	1	Yes	0.765	0.093	0.86	Yes	1.00	**4.76**
		U_{15} - L_{15}			-----	-685.70	-632	615	-249	259	-683	-162	624	56	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.231	1	Yes	0.661	0.302	0.97	Yes	1.00	**2.99**
		U_{16} - L_{16}			-----	-711.75	-494	480	-159	126	-473	-93	795	158	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.172	1	Yes	0.763	0.210	0.98	Yes	1.00	**2.72**
		U_{17} - L_{17}			-----	-643.57	-521	526	-191	183	-493	8	673	150	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.166	0.96	Yes	0.749	0.244	1.00	Yes	1.00	**2.68**
		U_{18} - L_{18}			-----	-581.44	-455	489	-173	161	-607	-32	660	167	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.172	0.95	Yes	0.741	0.250	1.00	Yes	1.00	**2.62**
		U_{19} - L_{19}			-----	-478.73	-285	288	-108	104	-725	-51	563	174	-----	-----	-----	-----	-----	-----	-----	-----	0.720	0.207	0.93	Yes	0.715	0.277	1.00	Yes	1.00	**2.57**
		U_{20} - L_{20}			-----	-358.60	-184	196	-59	62	-722	-139	587	136	-----	-----	-----	-----	-----	-----	-----	-----	0.735	0.262	1	Yes	0.687	0.224	0.92	Yes	1.00	**3.50**
		U_{21} - L_{21}			-----	-278.35	-164	186	-31	33	-1020	-214	661	111	-----	-----	-----	-----	-----	-----	-----	-----	0.629	0.364	1	Yes	0.589	0.238	0.83	Yes	1.00	**4.78**
		U_{22} - L_{22}			-----	-161.70	-46	54	111	-128	-1842	-582	-2216	-732	-----	-----	-----	-----	-----	-----	-----	-----	0.364	0.634	1	Yes	0.342	0.163	0.51	Yes	1.00	**6.67**
		U_{23} - L_{23}			-----	-311.25	35	-39	210	-232	644	239	-699	-201	-----	-----	-----	-----	-----	-----	-----	-----	0.703	0.295	1	Yes	0.659	0.297	0.96	Yes	1.00	**3.76**
		U_{24} - L_{24}			-----	-315.65	78	-81	164	-175	634	240	-1066	-134	-----	-----	-----	-----	-----	-----	-----	-----	0.647	0.346	1	Yes	0.605	0.200	0.81	Yes	1.00	**1.56**
		U_{25} - L_{25}			-----	-470.40	113	-111	304	-298	629	252	-49	89	-----	-----	-----	-----	-----	-----	-----	-----	0.708	0.194	0.91	Yes	0.702	0.292	1.00	Yes	1.00	**2.15**
		U_{26} - L_{26}			-----	-580.34	172	-168	483	-501	717	314	51	216	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.188	0.97	Yes	0.740	0.256	1.00	Yes	1.00	**2.55**
		U_{27} - L_{27}			-----	-586.67	195	-189	504	-508	1280	599	331	309	-----	-----	-----	-----	-----	-----	-----	-----	0.724	0.271	1	Yes	0.683	0.236	0.92	Yes	1.00	**2.58**
		U_{28} - L_{28}			-----	-596.66	116	-85	434	-416	1783	592	635	366	-----	-----	-----	-----	-----	-----	-----	-----	0.689	0.303	1	Yes	0.639	0.184	0.83	Yes	1.00	**2.88**
		U_{29} - L_{29}			-----	-605.86	111	-118	597	-595	1256	182	-157	-80	-----	-----	-----	-----	-----	-----	-----	-----	0.675	0.315	1	Yes	0.584	0.286	0.87	Yes	1.00	**3.53**
		U_{30} - L_{30}			-----	-1176.56	-524	462	254	-267	-746	-245	640	-113	-----	-----	-----	-----	-----	-----	-----	-----	0.894	0.106	1	Yes	0.810	0.097	0.91	Yes	1.00	**4.40**
		U_{31} - L_{31}			-----	-630.02	-471	465	-309	305	-1345	-75	464	90	-----	-----	-----	-----	-----	-----	-----	-----	0.702	0.297	1	Yes	0.607	0.226	0.84	Yes	1.00	**1.65**
		U_{32} - L_{32}			-----	-860.85	-465	464	-212	180	-548	-54	578	160	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.164	1	Yes	0.746	0.199	0.95	Yes	1.00	**2.74**
		U_{33} - L_{33}			-----	-822.49	-488	497	-247	227	-647	8	521	205	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.171	1	Yes	0.769	0.219	0.99	Yes	1.00	**2.95**
		U_{34} - L_{34}			-----	-776.85	-489	526	-246	238	-1026	-80	475	195	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.230	1	Yes	0.726	0.232	0.96	Yes	1.00	**3.31**
		U_{35} - L_{35}			-----	-694.92	-531	576	-270	274	-1120	-198	596	301	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.222	1	Yes	0.745	0.244	0.99	Yes	1.00	**3.59**
		U_{36} - L_{36}			-----	-471.72	-330	359	-151	168	-1150	-158	558	264	-----	-----	-----	-----	-----	-----	-----	-----	0.684	0.306	0.99	Yes	0.679	0.314	1.00	Yes	1.00	**3.32**
		U_{37} - L_{37}			-----	-144.21	-173	205	-69	81	-1638	-295	466	131	-----	-----	-----	-----	-----	-----	-----	-----	0.326	0.673	1	Yes	0.305	0.262	0.57	Yes	1.00	**5.67**
		U_{38} - L_{38}			176.19	-89.19	-121	132	130	-135	478	144	-1740	-620	0.317	0.677	1.00	Yes	0.174	0.372	0.55	Yes	0.201	0.471	0.68	Yes	0.189	0.173	0.37	Yes	1.00	**5.07**
		U_{39} - L_{39}			70.46	-293.97	-63	57	191	-216	521	154	-850	-248	0.127	0.522	0.65	Yes	0.070	0.287	0.36	Yes	0.664	0.330	1	Yes	0.622	0.276	0.90	Yes	1.00	**3.94**
		U_{40} - L_{40}			-----	-326.18	24	-33	215	-221	590	168	-186	-58	-----	-----	-----	-----	-----	-----	-----	-----	0.740	0.254	1	Yes	0.690	0.282	0.98	Yes	1.00	**2.67**
		U_{41} - L_{41}			-----	-463.00	80	-88	232	-246	570	188	60	53	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.208	1	Yes	0.726	0.224	0.95	Yes	1.00	**2.19**
		U_{42} - L_{42}			-----	-579.09	156	-166	493	-502	665	169	55	94	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.171	0.95	Yes	0.738	0.257	1.00	Yes	1.00	**2.85**
		U_{43} - L_{43}			-----	-708.48	175	-193	522	-549	635	186	359	157	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.155	0.97	Yes	0.759	0.233	1.00	Yes	1.00	**3.40**
		U_{44} - L_{44}			-----	-669.51	242	-297	503	-618	539	91	308	52	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.189	1	Yes	0.718	0.262	0.98	Yes	1.00	**2.87**
	Structure 3	U_0 - L_0			-----	-546.01	-219	365	-133	231	-499	-65	109	14	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.211	1	Yes	0.684	0.188	0.88	Yes	1.00	**1.44**
		U_1 - L_1			-----	-648.97	-516	509	-208	207	-466	-43	619	144	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.162	0.98	Yes	0.755	0.239	1.00	Yes	1.00	**2.76**
		U_2 - L_2			-----	-547.71	-379	405	-159	170	-501	105	661	306	-----	-----	-----	-----	-----	-----	-----	-----	0.802	0.194	1	Yes	0.762	0.230	1.00	Yes	1.00	**2.46**
		U_3 - L_3			-----	-409.80	-187	209	-70	85	-386	97	568	271	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.233	1	Yes	0.707	0.212	0.92	Yes	1.00	**1.94**
		U_4 - L_4			-----	-228.97	-121	138	-47	53	-1980	-95	585	230	-----	-----	-----	-----	-----	-----	-----	-----	0.516	0.477	1	Yes	0.484	0.177	0.67	Yes	1.00	**1.94**
		U_5 - L_5			51.69	-139.52	-83	100	36	-32	-1818	-266	642	208	0.093	0.655	0.75	Yes	0.051	0.360	0.42	Yes	0.313	0.685	1	Yes	0.295	0.128	0.43	Yes	1.00	**5.63**
		U_6 - L_6			-----	-179.23	51	-57	275	-309	616	187	-1066	-365	-----	-----	-----	-----	-----	-----	-----	-----	0.400	0.598	1	Yes	0.379	0.395	0.78	Yes	1.00	**9.22**
		U_7 - L_7			-----	-369.33	102	-118	226	-254	543	180	-274	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.229	0.98	Yes	0.708	0.290	1.00	Yes	1.00	**2.76**
		U_8 - L_8			-----	-488.13	157	-154	315	-316	1045	590	-111	68	-----	-----	-----	-----	-----	-----	-----	-----	0.705	0.290	1	Yes	0.670	0.270	0.94	Yes	1.00	**3.02**
		U_9 - L_9			-----	-597.56	182	-227	373	-462	1316	788	260	303	-----	-----	-----	-----	-----	-----	-----	-----	0.717	0.280	1	Yes	0.696	0.214	0.91	Yes	1.00	**3.16**
		U_{10} - L_{10}			-----	-633.41	153	-141	312	-327	1672	921	645	513	-----	-----	-----	-----	-----	-----	-----	-----	0.656	0.339	1	Yes	0.625	0.170	0.80	Yes	1.00	**2.98**
		U_{11} - L_{11}			-----	-506.09	213	-248	339	-391	1100	519	718	369	-----	-----	-----	-----	-----	-----	-----	-----	0.603	0.396	1	Yes	0.572	0.217	0.79	Yes	1.00	**1.43**
		U_{12} - L_{12}			-----	-1183.97	-309	323	295	-400	-1155	-349	1077	294	-----	-----	-----	-----	-----	-----	-----	-----	0.855	0.136	1	Yes	0.821	0.075	0.90	Yes	1.00	**4.89**
		U_{13} - L_{13}			-----	-444.02	-291	310	-154	169	-386	-113	532	56	-----	-----	-----	-----	-----	-----	-----	-----	0.742	0.212	0.96	Yes	0.685	0.305	1.00	Yes	1.00	**1.94**
		U_{14} - L_{14}			-----	-446.22	-171	191	-101	89	-1323	-369	748	258	-----	-----	-----	-----	-----	-----	-----	-----	0.676	0.317	1	Yes	0.640	0.167	0.81	Yes	1.00	**2.06**
		U_{15} - L_{15}			-----	-386.66	-153	180	-79	85	-803	-644	722	241	-----	-----	-----	-----	-----	-----	-----	-----	0.700	0.296	1	Yes	0.667	0.182	0.85	Yes	1.00	**3.84**
		U_{16} - L_{16}			-----	-165.04	-189	194	-72	75	-1819	-815	-507	23	-----	-----	-----	-----	-----	-----	-----	-----	0.363	0.635	1	Yes	0.349	0.247	0.60	Yes	1.00	**6.87**
		U_{17} - L_{17}			181.73	-89.44	-181	202	35	-57	480	178	-1417	-617	0.327	0.669	1.00	Yes	0.180	0.368	0.55	Yes	0.196	0.420	0.62	Yes	0.189	0.259	0.45	Yes	1.00	**6.39**
		U_{18} - L_{18}			152.08	-254.48	-157	172	200	-235	468	147	-1336	-493	0.274	0.687	0.97	Yes	0.150	0.378	0.53	Yes	0.556	0.439	1	Yes	0.538	0.300	0.84	Yes	1.00	**7.21**
		U_{19} - L_{19}			21.36	-296.56	-50	32	179	-200	422	211	480	237	0.038	0.394	0.44	Yes	0.021	0.217	0.24	Yes	0.648	0.347	1	Yes	0.628	0.256	0.89	Yes	1.00	**4.48**
		U_{20} - L_{20}			-----	-241.19	79	-90	176	-210	593	190	588	189	-----	-----	-----	-----	-----	-----	-----	-----	0.539	0.458	1	Yes	0.510	0.268	0.78	Yes	1.00	**1.99**

Inventory Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 2.167 1.625

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension							Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Diagonals	Structure 1	$U_0 - L_1$	564.15	-72.53	4	32	3	-15	-865	-483	135	200	0.740	0.255	1.00	Yes	0.447	0.140	0.59	Yes	0.124	0.267	0.4	Yes	0.112	0.037	0.15	Yes	1.00	**3.70**
		$U_1 - L_2$	322.41	-----	-87	6	-88	-29	-871	-437	-1056	-994	0.580	0.419	1.00	Yes	0.319	0.230	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.02**
		$U_2 - L_3$	-----	-248.39	0	-15	-12	-48	182	53	-1551	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.572	0.421	1	Yes	0.526	0.062	0.59	Yes	1.00	**3.27**
		$U_3 - L_4$	-----	-296.64	28	-11	10	-74	502	301	-794	-270	-----	-----	-----	-----	-----	-----	-----	-----	0.678	0.321	1	Yes	0.628	0.095	0.73	Yes	1.00	**3.71**
		$U_4 - L_4$	562.81	-----	-64	96	-44	27	305	192	-321	-131	0.825	0.172	1.00	Yes	0.454	0.094	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.97**
		$U_5 - L_5$	651.04	-----	-119	283	-44	103	187	357	-250	30	0.770	0.226	1.00	Yes	0.423	0.124	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.32**
		$U_7 - L_6$	611.47	-----	-245	290	-26	89	-58	28	-613	55	0.723	0.277	1.00	Yes	0.398	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.67**
		$U_8 - L_7$	633.32	-----	-42	360	31	93	139	-34	-218	-136	0.749	0.245	1.00	Yes	0.412	0.135	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.63**
		$U_9 - L_9$	956.03	-----	-33	405	-3	180	-380	-218	282	160	0.764	0.229	1.00	Yes	0.473	0.128	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.65**
		$U_9 - L_{10}$	982.51	-----	-286	280	-122	116	-667	-421	346	153	0.785	0.212	1.00	Yes	0.487	0.120	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.37**
		$U_{10} - L_{11}$	934.41	-----	-213	212	-95	91	-850	-687	81	-102	0.789	0.210	1.00	Yes	0.489	0.120	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.35**
		$U_{11} - L_{12}$	743.12	-----	-233	85	-107	43	-826	-996	64	-113	0.735	0.257	1.00	Yes	0.404	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.71**
		$U_{12} - L_{13}$	566.45	-----	-203	141	-81	61	-646	-580	158	16	0.690	0.303	1.00	Yes	0.434	0.173	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.91**
		$U_{13} - L_{14}$	283.95	-----	-50	41	-84	-40	155	-62	-1292	-742	0.511	0.481	1.00	Yes	0.281	0.265	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.27**
		$U_{15} - L_{14}$	-----	-147.68	22	-15	-144	-241	-461	507	1192	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.346	0.647	1	Yes	0.312	0.308	0.63	Yes	1.00	**35.95**
		$U_{16} - L_{15}$	390.36	-21.30	-155	88	-12	-8	323	27	-299	-125	0.702	0.292	1.00	Yes	0.386	0.161	0.55	Yes	0.050	0.175	0.23	Yes	0.045	0.198	0.25	Yes	1.00	**5.67**
		$U_{17} - L_{16}$	527.51	-----	-149	95	-44	21	94	-1	-312	-110	0.774	0.223	1.00	Yes	0.425	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.36**
		$U_{18} - L_{17}$	619.03	-----	-339	255	-127	86	76	55	-406	-118	0.732	0.266	1.00	Yes	0.403	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.72**
		$U_{19} - L_{18}$	691.79	-----	-328	248	-129	94	-96	46	-461	-207	0.749	0.243	1.00	Yes	0.412	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.86**
		$U_{20} - L_{19}$	683.13	-----	-417	333	-178	142	-179	-137	-271	-141	0.740	0.258	1.00	Yes	0.407	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.78**
	Structure 2	$U_0 - L_1$	713.63	-----	-187	277	-97	122	-1066	-353	-126	20	0.706	0.288	1.00	Yes	0.388	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.35**
		$U_1 - L_2$	708.64	-----	-383	292	-151	106	-798	-576	172	-5	0.701	0.297	1.00	Yes	0.386	0.163	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.31**
		$U_2 - L_3$	578.53	-----	-309	247	-104	76	-765	-544	156	-2	0.684	0.314	1.00	Yes	0.376	0.173	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.26**
		$U_3 - L_4$	513.79	-----	-166	109	-44	19	-756	-483	193	28	0.685	0.310	1.00	Yes	0.377	0.171	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.28**
		$U_4 - L_5$	311.70	-76.37	-125	72	13	-26	-951	-458	271	61	0.561	0.435	1.00	Yes	0.308	0.239	0.55	Yes	0.189	0.418	0.61	Yes	0.162	0.160	0.33	Yes	1.00	**3.42**
		$U_5 - L_6$	243.63	-239.36	-84	2	69	-69	-1412	-497	403	128	0.438	0.515	0.96	Yes	0.241	0.284	0.53	Yes	0.565	0.430	1	Yes	0.506	0.107	0.62	Yes	1.00	**5.14**
		$U_6 - L_7$	-----	-378.64	-3	-44	41	-102	-253	-555	-625	-181	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.185	1	Yes	0.725	0.116	0.85	Yes	1.00	**4.21**
		$U_8 - L_7$	547.87	-----	-176	144	-99	55	287	127	-601	-694	0.699	0.299	1.00	Yes	0.440	0.171	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.25**
		$U_8 - L_8$	580.05	-----	-291	225	-199	128	1314	161	-447	-413	0.628	0.365	1.00	Yes	0.346	0.201	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.34**
		$U_{10} - L_9$	789.49	-----	-276	252	-151	137	85	552	-200	-27	0.781	0.211	1.00	Yes	0.430	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.44**
		$U_{11} - L_{10}$	878.05	-----	-310	343	-146	164	243	285	-389	141	0.800	0.199	1.00	Yes	0.440	0.109	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.90**
		$U_{12} - L_{11}$	829.12	-----	-300	362	-126	176	-14	282	-603	65	0.755	0.236	1.00	Yes	0.415	0.130	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.65**
		$U_{13} - L_{12}$	728.06	-----	-415	381	-158	163	-241	161	-529	-7	0.720	0.272	1.00	Yes	0.396	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.59**
		$U_{14} - L_{13}$	701.51	-----	-184	448	-9	121	603	121	-157	-117	0.694	0.298	1.00	Yes	0.382	0.164	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.10**
		$U_{14} - L_{15}$	579.15	-----	-153	363	6	152	-102	-43	562	256	0.685	0.307	1.00	Yes	0.377	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.79**
		$U_{15} - L_{16}$	585.96	-----	-347	319	-154	149	52	-370	603	197	0.693	0.306	1.00	Yes	0.381	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**1.96**
		$U_{16} - L_{17}$	685.18	-----	-327	356	-121	156	-427	-306	356	126	0.742	0.252	1.00	Yes	0.408	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.57**
		$U_{17} - L_{18}$	628.09	-----	-282	279	-105	134	-502	-322	389	126	0.743	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.33**
		$U_{18} - L_{19}$	602.92	-----	-275	248	-77	109	-682	-478	366	146	0.713	0.279	1.00	Yes	0.392	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.68**
		$U_{19} - L_{20}$	529.71	-----	-173	166	-36	58	-825	-399	448	231	0.675	0.323	1.00	Yes	0.371	0.186	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.91**
		$U_{20} - L_{21}$	352.86	-----	-114	97	-15	25	-744	-330	417	223	0.635	0.361	1.00	Yes	0.349	0.199	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.27**
		$U_{21} - L_{22}$	61.81	-97.56	-7	43	-27	-109	456	275	-2300	-912	0.111	0.805	0.92	Yes	0.061	0.443	0.51	Yes	0.230	0.768	1	Yes	0.206	0.139	0.35	Yes	1.00	**7.70**
		$U_{23} - L_{22}$	363.15	-----	-114	49	-44	-25	689	168	202	-62	0.653	0.346	1.00	Yes	0.359	0.190	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.52**
		$U_{24} - L_{23}$	408.96	-----	-129	102	-41	30	249	85	-327	-190	0.736	0.259	1.00	Yes	0.405	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.38**
		$U_{25} - L_{24}$	565.65	-----	-180	165	-74	72	130	571	-323	-170	0.721	0.278	1.00	Yes	0.397	0.159	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.45**
		$U_{26} - L_{25}$	659.62	-----	-260	292	-67	124	279	248	-197	79	0.780	0.216	1.00	Yes	0.429	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.63**
		$U_{27} - L_{26}$	630.88	-----	-266	306	-81	129	107	272	-432	141	0.746	0.252	1.00	Yes	0.410	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.45**
		$U_{28} - L_{27}$	660.32	-----	-281	351	-70	128	-49	222	-637	32	0.715	0.284	1.00	Yes	0.393	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.64**
		$U_{29} - L_{28}$	583.21	-----	-342	322	-62	78	10	577	-638	-77	0.690	0.309	1.00	Yes	0.379	0.170	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.84**
		$U_{30} - L_{29}$	579.60	-----	-139	375	61	39	532	94	-288	-250	0.685	0.309	1.00	Yes	0.377	0.170	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.11**
		$U_{30} - L_{31}$	727.25	-----	-259	437	-53	218	-476	-245	446	201	0.719	0.274	1.00	Yes	0.396	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.82**
		$U_{31} - L_{32}$	737.24	-----	-427	379	-229	211	-431	-250	315	82	0.729	0.262	1.00	Yes	0.401	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.08**
		$U_{32} - L_{33}$	823.48	-----	-339	333	-154	193	-765	-533	306	83	0.750	0.249	1.00	Yes	0.413	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.44**
		$U_{33} - L_{34}$	807.54	-----	-285	307	-168	160	-933	-509	154	-49	0.736	0.258	1.00	Yes	0.405	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.48**
		$U_{34} - L_{35}$	758.31	-----	-261	257	-149	130	-859	-514	48	-107	0.750	0.249	1.00	Yes	0.413	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.61**
		$U_{35} - L_{36}$	645.31	-----	-291	237	-214	122	-885	-484	5	-364	0.699	0.294	1.00	Yes	0.384	0.162	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.42**
		$U_{36} - L_{37}$	513.35	-----	-173	143	-82	64	-912	-608	90	-69	0.655	0.341	1.00	Yes	0.412	0.197	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.39**
		$U_{38} - L_{37}$	-----	-358.58	12	-42	33	-92	-324	-197	386	-90	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.224	1	Yes	0.687	0.105	0.80	Yes	1.00	**4.56**
		$U_{39} - L_{38}$	378.43	-212.22	-124	41	60	-66	547	-90	-365	-80	0.681	0.317	1.00	Yes	0.374	0.175	0.55	Yes	0.506	0.315	0.83	Yes	0.449	0.159	0.61	Yes	1.00	**5.45**
		$U_{40} - L_{39}$	393.90	-39.36	-139	90	3	-16	155	40	-378	-100	0.708	0.288	1.00	Yes	0.390	0.158	0.55	Yes	0.094	0.168	0.27	Yes	0.083	0.178	0.27	Yes	1.00	**3.50**
		$U_{41} - L_{40}$	559.79	-----	-178	125	-51	25	7	7	-413	-181	0.746	0.249	1.00	Yes	0.410	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.49**
		$U_{42} - L_{41}$	623.27	-----	-329	264	-112	83	-29	38	-409	-173	0.737	0.260	1.00	Yes	0.405	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.58**
		$U_{43} - L_{42}$	772.32	-----	-376	309	-125	93	-89	84	-388	-200	0.764	0.232	1.00	Yes	0.420	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.26**
		$U_{44} - L_{43}$	790.46	-----	-406	383	-154	146	54	58	-167	22	0.782	0.213	1.00	Yes	0.430	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.48**
	Structure 3	$U_0 - L_1$	650.41	-----	-179	234	-79	104	-1033	-377	-144	3	0.704	0.289	1.00	Yes	0.387	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.46**
		$U_1 - L_2$	637.16	-----	-339	243	-159	108	-803	-540	162	-42	0.690	0.305	1.00	Yes	0.380	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.31**
		$U_2 - L_3$	564.38	-----	-305	241	-124	86	-881	-622	129	-28	0.667	0.332	1.00	Yes	0.367	0.183	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.49**
		$U_3 - L_4$	459.78	-----	-133	73	-43	21	-667	-803	150	-28	0.674	0.322	1.00	Yes	0.371	0.177	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.23**
		$U_4 - L_5$	280.49	-87.94	-140	64	11	-24	-1087	-672	334	91	0.504	0.493	1.00	Yes	0.277	0.271	0.55	Yes	0.208	0.406	0.62	Yes	0.186	0.178	0.37	Yes	1.00	**8.08**
		$U_5 - L_6$	-----	-210.31	-3	-33	18	-105	135	-30	-1072	-422	-----	-----	-----	-----	-----	-----	-----	-----	0.493	0.503	1	Yes	0.445	0.134	0.58	Yes	1.00	**4.06**
		$U_7 - L_6$	416.96	-----	-91	40	-45	12	113	-134	-428	-207	0.750	0.240	1.00	Yes	0.412	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.96**
		$U_8 - L_7$	629.45	-----	-203	165	-93	70	242	113	-241	-103	0.767	0.225	1.00	Yes	0.483	0.126	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.55**
		$U_8 - L_8$	832.48	-----	-231	155	-106	54	438	380	-266	-35	0.824	0.173	1.00	Yes	0.453	0.095	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.04**
		$U_{10} - L_9$	959.35	-----	-187	246	-92	100	468	511	-202	50	0.810	0.181	1.00	Yes	0.502	0.102	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.43**
		$U_{11} - L_{10}$	969.53	-----	-274	311	-71	102	461	410	-618	-46	0.775	0.217	1.00	Yes	0.480	0.123	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.78**
		$U_{12} - L_{11}$	937.56	-----	-22	401	20	132	400	273	-505	-111	0.750	0.243	1.00	Yes	0.464	0.137	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.38**
		$U_{13} - L_{12}$	586.63	-----	-51	321	-21	149	0	-46	668	200	0.694	0.304	1.00	Yes	0.381	0.167	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.90**
		$U_{13} - L_{14}$	639.33	-----	-279	249	-116	118	-221	-449	424	136	0.756	0.241	1.00	Yes	0.416	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**2.93**
		$U_{14} - L_{15}$	505.91	-----	-150	211	-74	101	-1507	-242	79	-434	0.598	0.393	1.00	Yes	0.329	0.216	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.74**
		$U_{15} - L_{16}$	371.50	-----	-7	87	-76	-10	485	258	-1565	-925	0.545	0.452	1.00	Yes	0.300	0.249	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.09**
		$U_{17} - L_{16}$	-----	-342.73	55	-8	-40	-66	-247	4	239	-447	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.207	1	Yes	0.725	0.085	0.81	Yes	1.00	**6.05**
		$U_{18} - L_{17}$	190.29	-355.19	-87	-5	70	-43	-100	-292	-203	-64	0.342	0.195	0.54	Yes	0.188	0.108	0.30	Yes	0.818	0.175	1	Yes	0.752	0.111	0.87	Yes	1.00	**8.37**
		$U_{19} - L_{18}$	460.45	-219.49	-84	6	40	-30	109	52	-207	-118	0.828	0.167	1.00	Yes	0.455	0.092	0.55	Yes	0.503	0.163	0.67	Yes	0.464	0.107	0.58	Yes	1.00	**7.04**
		$U_{20} - L_{19}$	615.99	-75.74	-142	81	-25	-3	-3	23	-71	-4	0.808	0.184	1.00	Yes	0.488	0.101	0.59	Yes	0.129	0.094	0.23	Yes	0.117	0.166	0.29	Yes	1.00	**6.07**

Moment (End) Al Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

				Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
						Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
				Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
				(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Upper Chord	Structure 1	U_0 - U_1		85.23	-595.87	-171	162	-436	-567	8	12	-66	-131	0.098	0.157	0.26	Yes	0.067	0.108	0.18	Yes	0.811	0.185	1.00	Yes	0.804	0.135	0.94	Yes	1.00	**7.96**
		U_1 - U_2		77.58	-599.74	-54	119	-159	-625	-7	-7	-16	-154	0.089	0.175	0.27	Yes	0.061	0.120	0.19	Yes	0.816	0.181	1.00	Yes	0.809	0.149	0.96	Yes	1.00	**4.33**
		U_2 - U_3		188.21	-638.50	-107	306	-455	-300	10	26	-26	129	0.216	0.130	0.35	Yes	0.146	0.085	0.24	Yes	0.869	0.128	1.00	Yes	0.861	0.108	0.97	Yes	1.00	**4.00**
		U_3 - U_4		357.75	-558.99	84	318	-389	-615	5	38	156	61	0.410	0.173	0.59	Yes	0.281	0.118	0.40	Yes	0.761	0.233	1.00	Yes	0.754	0.146	0.90	Yes	1.00	**3.93**
		U_4 - U_5		381.41	-585.16	140	311	-874	-149	21	-31	93	-52	0.437	0.223	0.67	Yes	0.300	0.153	0.46	Yes	0.796	0.196	1.00	Yes	0.789	0.208	1.00	Yes	1.00	**4.15**
		U_5 - U_6		281.88	-486.67	-486	1273	-498	-66	383	-886	1341	-1448	0.323	0.547	0.88	Yes	0.218	0.362	0.58	Yes	0.662	0.330	1.00	Yes	0.656	0.303	0.96	Yes	1.00	**15.61**
		U_6 - U_7		897.68	-----	397	233	-334	25	-319	-132	388	-118	0.858	0.138	1.00	Yes	0.600	0.095	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.14**
		U_7 - U_8		1000.83	-----	-390	1801	-91	784	-210	-222	-241	-116	0.693	0.297	1.00	Yes	0.484	0.203	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		U_8 - U_9		769.22	-----	724	-97	1685	-782	-656	-155	-383	-58	0.630	0.363	1.00	Yes	0.431	0.247	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.07**
		U_9 - U_{10}		767.61	-----	247	339	267	-284	-261	29	-18	569	0.833	0.167	1.00	Yes	0.564	0.112	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.84**
		U_{10} - U_{11}		365.93	-617.35	370	-27	299	-923	23	102	215	143	0.397	0.241	0.64	Yes	0.265	0.155	0.42	Yes	0.795	0.165	0.96	Yes	0.788	0.207	1.00	Yes	1.00	**5.70**
		U_{11} - U_{12}		-----	-892.21	230	-103	49	-654	112	403	154	613	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.150	1.00	Yes	0.837	0.109	0.95	Yes	1.00	**3.53**
		U_{12} - U_{13}		-----	-1278.79	10	-234	-193	-576	345	205	539	331	-----	-----	-----	-----	-----	-----	-----	-----	0.865	0.133	1.00	Yes	0.854	0.079	0.94	Yes	1.00	**3.54**
		U_{13} - U_{14}		-----	-1353.93	-154	-388	-463	-1410	225	177	384	504	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.214	1.00	Yes	0.776	0.156	0.94	Yes	1.00	**2.82**
		U_{14} - U_{15}		-----	-1352.48	-280	-254	-1313	-605	213	29	590	170	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.211	1.00	Yes	0.775	0.145	0.93	Yes	1.00	**2.81**
		U_{15} - U_{16}		-----	-1477.18	-197	-411	-554	-793	79	46	428	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.135	1.00	Yes	0.847	0.088	0.94	Yes	1.00	**3.40**
		U_{16} - U_{17}		-----	-1406.00	-329	-185	-1140	-440	182	-34	623	85	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.177	1.00	Yes	0.806	0.126	0.94	Yes	1.00	**4.42**
		U_{17} - U_{18}		-----	-1102.81	-674	105	-355	-86	460	-58	252	-264	-----	-----	-----	-----	-----	-----	-----	-----	0.874	0.122	1.00	Yes	0.863	0.110	0.98	Yes	1.00	**4.09**
		U_{18} - U_{19}		-----	-736.62	-713	-38	-191	-74	465	-278	15	-116	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.156	1.00	Yes	0.829	0.143	0.98	Yes	1.00	**4.40**
		U_{19} - U_{20}		-----	-466.03	-1532	2315	-532	35	410	-1337	67	-61	-----	-----	-----	-----	-----	-----	-----	-----	0.529	0.330	0.86	Yes	0.524	0.466	1.00	Yes	1.00	**9.42**
	Structure 2	U_0 - U_1		-----	-653.22	-105	-10	-185	-1303	9	-61	-54	-117	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.221	1.00	Yes	0.771	0.221	1.00	Yes	1.00	**9.20**
		U_1 - U_2		-----	-875.76	-54	-147	47	-877	-72	-219	-34	-152	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.141	1.00	Yes	0.845	0.133	0.98	Yes	1.00	**4.93**
		U_2 - U_3		-----	-1214.62	-109	-227	-74	-1141	-23	409	-83	106	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.132	1.00	Yes	0.862	0.116	0.98	Yes	1.00	**4.36**
		U_3 - U_4		-----	-1456.17	-401	-372	-804	-1057	260	366	172	130	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.157	1.00	Yes	0.829	0.094	0.93	Yes	1.00	**3.75**
		U_4 - U_5		-----	-1549.12	-452	-328	-827	-1388	809	319	241	139	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.193	1.00	Yes	0.795	0.115	0.92	Yes	1.00	**3.33**
		U_5 - U_6		-----	-1647.62	-391	72	-1153	-773	182	-247	264	380	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.143	1.00	Yes	0.846	0.096	0.95	Yes	1.00	**3.28**
		U_6 - U_7		-----	-1394.03	-261	-83	-956	-1429	-151	-196	335	134	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.192	1.00	Yes	0.794	0.127	0.93	Yes	1.00	**2.65**
		U_7 - U_8		-----	-1411.60	-178	-153	-1539	-827	-115	-192	208	53	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.187	1.00	Yes	0.804	0.137	0.95	Yes	1.00	**2.71**
		U_8 - U_9		-----	-1281.51	-243	160	-964	-401	-109	-208	312	-229	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.121	1.00	Yes	0.869	0.102	0.98	Yes	1.00	**3.00**
		U_9 - U_{10}		519.23	-989.12	142	614	-1056	-264	-222	-195	462	-273	0.381	0.179	0.56	Yes	0.258	0.121	0.38	Yes	0.859	0.133	1.00	Yes	0.854	0.128	0.99	Yes	1.00	**5.52**
		U_{10} - U_{11}		656.70	-826.87	290	469	-1087	-96	-216	-183	334	-135	0.555	0.194	0.75	Yes	0.377	0.126	0.51	Yes	0.827	0.170	1.00	Yes	0.822	0.153	0.98	Yes	1.00	**4.85**
		U_{11} - U_{12}		834.16	-438.14	-1636	1217	-672	122	382	-182	-83	-515	0.705	0.294	1.00	Yes	0.473	0.196	0.67	Yes	0.438	0.134	0.58	Yes	0.435	0.231	0.67	Yes	1.00	**9.54**
		U_{12} - U_{13}		1263.85	-----	557	159	-756	-303	-475	-411	423	-451	0.853	0.140	1.00	Yes	0.608	0.096	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.34**
		U_{13} - U_{14}		1240.75	-----	-865	3532	-274	1458	-416	-870	-428	-454	0.610	0.386	1.00	Yes	0.432	0.254	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.53**
		U_{14} - U_{15}		1284.55	-----	1302	68	3210	-321	-819	-610	-1042	-628	0.632	0.368	1.00	Yes	0.447	0.242	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.27**
		U_{15} - U_{16}		1409.13	-----	42	561	-3	-173	-908	-672	-304	470	0.852	0.141	1.00	Yes	0.606	0.097	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.92**
		U_{16} - U_{17}		1155.97	-----	596	435	886	-606	-322	-75	310	213	0.852	0.145	1.00	Yes	0.567	0.096	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.63**
		U_{17} - U_{18}		801.64	-----	418	391	607	-578	0	200	55	629	0.805	0.195	1.00	Yes	0.536	0.129	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.60**
		U_{18} - U_{19}		814.94	-517.76	525	421	393	-716	62	113	350	275	0.818	0.173	1.00	Yes	0.537	0.110	0.65	Yes	0.615	0.182	0.80	Yes	0.611	0.122	0.74	Yes	1.00	**5.59**
		U_{19} - U_{20}		615.95	-783.65	390	335	-126	-539	0	-62	128	420	0.578	0.143	0.73	Yes	0.383	0.094	0.48	Yes	0.870	0.129	1.00	Yes	0.865	0.086	0.96	Yes	1.00	**4.72**
		U_{20} - U_{21}		486.78	-949.94	218	211	-237	-571	-84	-73	291	169	0.378	0.115	0.50	Yes	0.264	0.075	0.34	Yes	0.873	0.122	1.00	Yes	0.867	0.083	0.95	Yes	1.00	**4.21**
		U_{21} - U_{22}		311.93	-834.70	75	153	-510	-1122	-29	30	185	341	0.242	0.200	0.45	Yes	0.172	0.134	0.31	Yes	0.767	0.228	1.00	Yes	0.762	0.163	0.93	Yes	1.00	**3.10**
		U_{22} - U_{23}		313.34	-837.37	163	56	-1108	-507	-3	-10	407	84	0.243	0.205	0.45	Yes	0.172	0.138	0.32	Yes	0.770	0.226	1.00	Yes	0.764	0.161	0.93	Yes	1.00	**3.11**
		U_{23} - U_{24}		975.70	-887.40	431	419	-506	-740	-224	-28	680	-803	0.757	0.195	0.96	Yes	0.530	0.130	0.66	Yes	0.816	0.176	1.00	Yes	0.810	0.107	0.92	Yes	1.00	**7.96**
		U_{24} - U_{25}		815.42	-803.79	452	424	-671	-238	-211	1	354	-159	0.765	0.155	0.92	Yes	0.507	0.102	0.61	Yes	0.892	0.107	1.00	Yes	0.887	0.107	1.00	Yes	1.00	**6.42**
		U_{25} - U_{26}		873.10	-137.19	446	478	-169	56	-275	3	162	-257	0.876	0.121	1.00	Yes	0.575	0.078	0.66	Yes	0.163	0.125	0.29	Yes	0.162	0.081	0.25	Yes	1.00	**6.39**
		U_{26} - U_{27}		488.95	-210.08	-2419	1564	-532	100	605	-362	-290	-274	0.491	0.499	1.00	Yes	0.327	0.331	0.66	Yes	0.250	0.259	0.51	Yes	0.248	0.411	0.66	Yes	1.00	**14.74**
		U_{27} - U_{28}		1061.99	-----	-457	1273	-139	253	148	-543	-30	-279	0.783	0.217	1.00	Yes	0.521	0.143	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.08**
		U_{28} - U_{29}		1494.48	-----	-299	127	-382	-85	107	-552	143	-370	0.903	0.090	1.00	Yes	0.643	0.062	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.68**
		U_{29} - U_{30}		1305.75	-----	-399	3309	-18	1049	-504	-747	-310	-207	0.642	0.357	1.00	Yes	0.455	0.235	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.74**
		U_{30} - U_{31}		1294.16	-----	1087	51	3237	-594	-613	-340	-901	-450	0.636	0.361	1.00	Yes	0.451	0.237	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.76**
		U_{31} - U_{32}		1276.97	-----	45	497	-50	-315	-523	-273	-4	733	0.862	0.132	1.00	Yes	0.615	0.092	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.29**
		U_{32} - U_{33}		999.69	-----	514	340	783	-839	-110	-23	186	279	0.844	0.152	1.00	Yes	0.567	0.102	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.48**
		U_{33} - U_{34}		882.29	-719.92	480	373	-70	-915	-12	212	417	979	0.745	0.248	1.00	Yes	0.507	0.165	0.68	Yes	0.720	0.218	0.94	Yes	0.715	0.129	0.85	Yes	1.00	**5.86**
		U_{34} - U_{35}		448.63	-940.73	412	123	-61	-1077	180	149	591	461	0.329	0.195	0.53	Yes	0.223	0.132	0.36	Yes	0.817	0.177	1.00	Yes	0.812	0.131	0.95	Yes	1.00	**4.18**
		U_{35} - U_{36}		210.11	-1246.61	213	-104	-313	-906	96	85	360	437	0.121	0.132	0.26	Yes	0.085	0.088	0.18	Yes	0.852	0.146	1.00	Yes	0.846	0.096	0.95	Yes	1.00	**3.76**
		U_{36} - U_{37}		-----	-1378.37	-40	52	-744	-1564	84	-3	406	267	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.201	1.00	Yes	0.785	0.139	0.93	Yes	1.00	**3.30**
		U_{37} - U_{38}		-----	-1385.48	145	-126	-1464	-956	41	22	325	233	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.205	1.00	Yes	0.789	0.130	0.92	Yes	1.00	**3.32**
		U_{38} - U_{39}		-----	-1645.64	189	-263	-733	-1272	129	-26	543	-69	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.149	1.00	Yes	0.845	0.105	0.96	Yes	1.00	**3.88**
		U_{39} - U_{40}		-----	-1568.57	-213	-298	-1529	-946	60	11	443	93	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.186	1.00	Yes	0.805	0.127	0.94	Yes	1.00	**3.90**
		U_{40} - U_{41}		-----	-1461.16	-216	-306	-1168	-799	58	-76	394	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.154	1.00	Yes	0.832	0.104	0.94	Yes	1.00	**4.18**
		U_{41} - U_{42}		-----	-1224.48	-1142	-3	-98	-157	393	-132	-71	-80	-----	-----	-----	-----	-----	-----	-----	-----	0.874	0.119	1.00	Yes	0.869	0.116	0.99	Yes	1.00	**4.78**
		U_{42} - U_{43}		-----	-811.21	-464	-34	-942	-321	-248	-268	489	-254	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.206	1.00	Yes	0.783	0.143	0.93	Yes	1.00	**7.81**
		U_{43} - U_{44}		-----	-533.20	-1743	2179	56	-318	151	-1063	-55	73	-----	-----	-----	-----	-----	-----	-----	-----	0.634	0.242	0.88	Yes	0.630	0.370	1.00	Yes	1.00	**8.08**
	Structure 3	U_0 - U_1		-----	-686.76	-24	-141	-209	-1115	-3	-38	-161	-226	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.219	1.00	Yes	0.773	0.224	1.00	Yes	1.00	**12.10**
		U_1 - U_2		-----	-755.83	-38	-132	140	-665	-63	-233	-67	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.138	1.00	Yes	0.850	0.134	0.99	Yes	1.00	**4.92**
		U_2 - U_3		-----	-1097.45	-79	-157	36	-659	-51	342	-119	185	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.122	1.00	Yes	0.859	0.107	0.97	Yes	1.00	**4.53**
		U_3 - U_4		-----	-1433.65	-166	-291	-386	-921	353	555	232	266	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.159	1.00	Yes	0.822	0.102	0.93	Yes	1.00	**4.43**
		U_4 - U_5		-----	-1487.75	-400	-52	-646	-549	689	230	341	167	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.135	1.00	Yes	0.853	0.071	0.93	Yes	1.00	**3.77**
		U_5 - U_6		-----	-1364.75	-188	-282	-581	-1400	141	-149	259	312	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.204	1.00	Yes	0.782	0.154	0.94	Yes	1.00	**3.02**
		U_6 - U_7		-----	-1381.98	-379	-106	-1480	-457	-89	-186	400	58	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.198	1.00	Yes	0.792	0.163	0.96	Yes	1.00	**3.09**
		U_7 - U_8		3.91	-1243.51	-107	166	-590	-529	-105	-231	609	-1004	0.002	0.161	0.17	Yes	0.002	0.106	0.11	Yes	0.841	0.155	1.00	Yes	0.831	0.081	0.92	Yes	1.00	**7.55**
		U_8 - U_9		145.51	-901.45	5	343	-827	-49	-101	-175	243	-328	0.116	0.176	0.30	Yes	0.079	0.118	0.20	Yes	0.853	0.137	1.00	Yes	0.846	0.137	0.99	Yes	1.00	**6.48**
		U_9 - U_{10}		-----	-534.95	-1389	857	-200	80	452	-377	-39	-88	-----	-----	-----	-----	-----	-----	-----	-----	0.689	0.217	0.91	Yes	0.683	0.311	1.00	Yes	1.00	**11.18**
		U_{10} - U_{11}		688.71	-----	-390	685	14	60	235	-608	-34	-131	0.747	0.251	1.00	Yes	0.506	0.168	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.23**
		U_{11} - U_{12}		816.92	-----	-542	1574	-155	559	-211	-522	-217	-189	0.669	0.328	1.00	Yes	0.458	0.223	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.87**
		U_{12} - U_{13}		828.20	-----	703	202	2251	-933	-783	-462	-643	-258	0.574	0.421	1.00	Yes	0.400	0.287	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.55**
		U_{13} - U_{14}		880.69	-----	226	463	69	-96	-409	-212	-117	291	0.842	0.155	1.00	Yes	0.589	0.106	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.17**
		U_{14} - U_{15}		741.77	-241.52	484	359	306	-354	-144	-37	154	35	0.850	0.141	1.00	Yes	0.573	0.092	0.67	Yes	0.329	0.154	0.49	Yes	0.326	0.115	0.45	Yes	1.00	**5.49**
		U_{15} - U_{16}		506.39	-563.57	396	279	-144	-834	-70	135	91	458	0.580	0.276	0.86	Yes	0.398	0.189	0.59	Yes	0.767	0.228	1.00	Yes	0.760	0.198	0.96	Yes	1.00	**4.83**
		U_{16} - U_{17}		504.99	-572.27	465	177	-618	-407	59	81	446	216	0.579	0.222	0.81	Yes	0.397	0.152	0.55	Yes	0.779	0.216	1.00	Yes	0.772	0.147	0.92	Yes	1.00	**4.86**
		U_{17} - U_{18}		302.87	-616.87	415	-37	-290	-480	-96	65	316	-19	0.347	0.167	0.52	Yes	0.234	0.110	0.35	Yes	0.839	0.154	1.00	Yes	0.832	0.114	0.95	Yes	1.00	**4.58**
		U_{18} - U_{19}		144.56	-542.00	230	-28	-628	-332	-95	40	511	-17	0.166	0.236	0.41	Yes	0.114	0.161	0.28	Yes	0.737	0.254	1.00	Yes	0.731	0.149	0.89	Yes	1.00	**4.42**
		U_{19} - U_{20}		89.17	-525.34	-1091	1217	296	-458	415	-760	-215	239	0.102	0.418	0.52	Yes	0.070	0.286	0.36	Yes	0.715	0.161	0.88	Yes	0.708	0.289	1.00	Yes	1.00	**8.21**

Moment (End) Al Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Lower Chord	Structure 1	L_0 - L_1	-----	-163.68	-642	534	1899	-2325	-78	-286	-61	-223	-----	-----	-----	-----	-----	-----	-----	-----	0.297	0.547	0.85	Yes	0.295	0.698	1.00	Yes	1.00	**45.49**
		L_1 - L_2	484.69	-70.17	137	68	157	-742	-24	-65	-154	-85	0.742	0.256	1.00	Yes	0.453	0.172	0.63	Yes	0.127	0.130	0.26	Yes	0.126	0.223	0.35	Yes	1.00	**6.25**
		L_2 - L_3	721.85	-153.35	26	120	-468	-619	-41	47	-97	-53	0.830	0.165	1.00	Yes	0.480	0.099	0.58	Yes	0.210	0.185	0.40	Yes	0.208	0.149	0.36	Yes	1.00	**5.62**
		L_3 - L_4	696.63	-238.60	114	343	-284	-755	87	72	-71	-76	0.801	0.196	1.00	Yes	0.476	0.127	0.61	Yes	0.326	0.182	0.51	Yes	0.323	0.182	0.51	Yes	1.00	**4.56**
		L_4 - L_5	289.90	-335.29	-1430	1210	-586	282	-543	427	-863	1345	0.375	0.618	1.00	Yes	0.225	0.395	0.63	Yes	0.515	0.276	0.80	Yes	0.511	0.379	0.89	Yes	1.00	**10.58**
		L_5 - L_6	-----	-700.69	-84	670	-123	195	228	133	486	125	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.178	1.00	Yes	0.808	0.148	0.96	Yes	1.00	**4.38**
		L_6 - L_7	-----	-1130.57	-525	433	217	106	-69	165	125	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.920	0.038	0.96	Yes	0.910	0.083	1.00	Yes	1.00	**5.37**
		L_7 - L_8	-----	-1272.18	-3	1365	10	600	37	-2	-64	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.184	1.00	Yes	0.806	0.181	0.99	Yes	1.00	**2.91**
		L_8 - L_9	-----	-1264.96	739	-16	1145	-71	-491	-347	-23	-234	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.184	1.00	Yes	0.801	0.152	0.96	Yes	1.00	**4.72**
		L_9 - L_{10}	-----	-1095.36	4	142	727	-502	265	230	-181	-265	-----	-----	-----	-----	-----	-----	-----	-----	0.891	0.076	0.97	Yes	0.882	0.114	1.00	Yes	1.00	**7.93**
		L_{10} - L_{11}	-----	-559.94	535	-2	400	-509	97	6	94	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.861	0.098	0.96	Yes	0.853	0.142	1.00	Yes	1.00	**5.31**
		L_{11} - L_{12}	559.39	-392.23	565	-111	486	-934	94	-35	17	-146	0.724	0.273	1.00	Yes	0.435	0.180	0.62	Yes	0.603	0.101	0.71	Yes	0.598	0.247	0.85	Yes	1.00	**7.20**
		L_{12} - L_{13}	1132.82	-64.88	219	-45	-167	-505	24	28	64	13	0.894	0.097	1.00	Yes	0.572	0.058	0.63	Yes	0.061	0.089	0.16	Yes	0.060	0.090	0.15	Yes	1.00	**6.61**
		L_{13} - L_{14}	1293.80	-----	354	-443	307	-1642	10	-3	-2	-143	0.761	0.238	1.00	Yes	0.493	0.145	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.36**
		L_{14} - L_{15}	1539.72	-----	-421	-15	-1812	-297	-93	-94	-323	31	0.752	0.241	1.00	Yes	0.489	0.146	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.61**
		L_{15} - L_{16}	1703.13	-----	-205	-352	-982	-1098	-129	-53	18	-375	0.832	0.159	1.00	Yes	0.534	0.093	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.85**
		L_{16} - L_{17}	1156.51	-----	-1356	194	-422	51	-682	93	-62	-49	0.731	0.260	1.00	Yes	0.474	0.161	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.20**
		L_{17} - L_{18}	854.47	-----	-910	391	-399	-97	-278	-562	250	-30	0.744	0.247	1.00	Yes	0.476	0.150	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.51**
		L_{18} - L_{19}	276.73	-200.33	-1273	915	-194	226	-914	374	28	-35	0.424	0.572	1.00	Yes	0.286	0.364	0.66	Yes	0.364	0.209	0.58	Yes	0.361	0.382	0.75	Yes	1.00	**11.81**
		L_{19} - L_{20}	69.47	-462.65	-548	257	-100	-29	143	32	-30	-7	0.106	0.194	0.31	Yes	0.065	0.130	0.20	Yes	0.840	0.121	0.97	Yes	0.833	0.164	1.00	Yes	1.00	**5.35**
	Structure 2	L_0 - L_1	8.92	-275.98	-184	174	1142	-2946	-45	-156	-22	-75	0.011	0.625	0.64	Yes	0.006	0.405	0.42	Yes	0.397	0.411	0.81	Yes	0.394	0.600	1.00	Yes	1.00	**24.34**
		L_1 - L_2	584.33	-----	129	-137	531	-1322	-62	-9	-94	-58	0.710	0.285	1.00	Yes	0.422	0.184	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.30**
		L_2 - L_3	1044.91	-----	-69	-99	144	-1047	61	82	-15	-24	0.834	0.163	1.00	Yes	0.549	0.093	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.58**
		L_3 - L_4	1410.17	-----	31	-378	-1	-1280	-18	40	-40	-16	0.837	0.155	1.00	Yes	0.565	0.100	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.06**
		L_4 - L_5	1828.31	-----	-385	-188	-819	-1307	90	222	-65	-139	0.852	0.139	1.00	Yes	0.564	0.082	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.92**
		L_5 - L_6	1931.01	-----	-125	-297	-755	-1764	127	-17	-115	-130	0.829	0.165	1.00	Yes	0.556	0.100	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.14**
		L_6 - L_7	1944.06	-----	-376	-24	-1700	-1856	-176	42	-95	198	0.823	0.175	1.00	Yes	0.547	0.102	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.66**
		L_7 - L_8	1391.81	-56.69	-185	344	-1567	-496	-128	7	-172	-297	0.798	0.197	1.00	Yes	0.524	0.116	0.65	Yes	0.039	0.190	0.23	Yes	0.038	0.173	0.22	Yes	1.00	**3.75**
		L_8 - L_9	1045.28	-653.59	100	703	-1044	100	-6	24	-341	1279	0.731	0.261	1.00	Yes	0.492	0.168	0.67	Yes	0.542	0.140	0.69	Yes	0.538	0.141	0.68	Yes	1.00	**6.43**
		L_9 - L_{10}	622.44	-818.16	-34	866	-863	10	40	113	442	-385	0.556	0.192	0.75	Yes	0.323	0.118	0.45	Yes	0.865	0.099	0.97	Yes	0.859	0.139	1.00	Yes	1.00	**5.87**
		L_{10} - L_{11}	-----	-750.38	-567	633	-223	369	-236	173	-38	20	-----	-----	-----	-----	-----	-----	-----	-----	0.887	0.056	0.95	Yes	0.881	0.111	1.00	Yes	1.00	**5.60**
		L_{11} - L_{12}	-----	-1014.25	-522	1171	-312	438	47	12	132	282	-----	-----	-----	-----	-----	-----	-----	-----	0.838	0.118	0.96	Yes	0.832	0.159	1.00	Yes	1.00	**3.60**
		L_{12} - L_{13}	-----	-1513.55	-400	-71	-384	-604	176	-94	69	108	-----	-----	-----	-----	-----	-----	-----	-----	0.913	0.081	1.00	Yes	0.905	0.060	0.97	Yes	1.00	**3.87**
		L_{13} - L_{14}	-----	-1515.52	-847	2684	-348	1243	-84	-284	-194	-335	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.180	0.95	Yes	0.763	0.234	1.00	Yes	1.00	**2.75**
		L_{14} - L_{15}	-----	-1518.32	1381	-418	2620	-940	-392	-264	-342	-187	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.173	0.95	Yes	0.764	0.229	1.00	Yes	1.00	**2.73**
		L_{15} - L_{16}	-----	-1492.59	-803	490	-191	-268	-655	-259	-672	-550	-----	-----	-----	-----	-----	-----	-----	-----	0.900	0.092	1.00	Yes	0.893	0.080	0.98	Yes	1.00	**11.20**
		L_{16} - L_{17}	-----	-1135.12	1255	196	1386	-472	509	269	-145	-330	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.158	1.00	Yes	0.827	0.171	1.00	Yes	1.00	**6.34**
		L_{17} - L_{18}	-----	-854.49	419	329	635	-408	126	-39	-98	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.904	0.077	0.99	Yes	0.897	0.102	1.00	Yes	1.00	**4.70**
		L_{18} - L_{19}	-----	-651.49	641	197	510	-423	-8	32	134	61	-----	-----	-----	-----	-----	-----	-----	-----	0.874	0.120	1.00	Yes	0.868	0.124	1.00	Yes	1.00	**4.31**
		L_{19} - L_{20}	247.64	-657.30	541	339	322	-630	40	-23	155	-91	0.281	0.145	0.43	Yes	0.166	0.092	0.26	Yes	0.881	0.115	1.00	Yes	0.876	0.122	1.00	Yes	1.00	**5.51**
		L_{20} - L_{21}	976.26	-870.04	772	357	-248	-1095	-119	-114	-39	-32	0.789	0.176	0.97	Yes	0.519	0.101	0.62	Yes	0.833	0.130	0.97	Yes	0.827	0.163	1.00	Yes	1.00	**9.15**
		L_{21} - L_{22}	845.88	-429.78	297	239	-267	-1953	-82	-5	-36	-190	0.684	0.311	1.00	Yes	0.458	0.188	0.65	Yes	0.411	0.254	0.67	Yes	0.409	0.291	0.70	Yes	1.00	**5.18**
		L_{22} - L_{23}	847.68	-363.48	224	271	-1921	-381	35	-22	-245	187	0.685	0.313	1.00	Yes	0.459	0.189	0.65	Yes	0.348	0.255	0.61	Yes	0.346	0.286	0.64	Yes	1.00	**5.16**
		L_{23} - L_{24}	973.91	-811.81	381	646	-842	-853	49	135	710	-257	0.787	0.205	1.00	Yes	0.517	0.122	0.64	Yes	0.777	0.188	0.97	Yes	0.772	0.127	0.90	Yes	1.00	**9.97**
		L_{24} - L_{25}	230.01	-638.21	526	377	-769	-12	163	-75	-286	291	0.261	0.193	0.46	Yes	0.154	0.122	0.28	Yes	0.856	0.090	0.95	Yes	0.851	0.148	1.00	Yes	1.00	**8.16**
		L_{25} - L_{26}	188.56	-650.61	281	640	-345	50	80	210	146	-133	0.214	0.156	0.37	Yes	0.123	0.092	0.22	Yes	0.872	0.117	0.99	Yes	0.867	0.124	1.00	Yes	1.00	**7.41**
		L_{26} - L_{27}	-----	-848.02	-453	656	-40	196	-209	133	30	22	-----	-----	-----	-----	-----	-----	-----	-----	0.897	0.058	0.96	Yes	0.890	0.105	1.00	Yes	1.00	**4.03**
		L_{27} - L_{28}	-----	-1161.19	-311	1227	-138	394	187	108	193	285	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.130	0.99	Yes	0.846	0.151	1.00	Yes	1.00	**3.66**
		L_{28} - L_{29}	-----	-1524.69	-118	-133	-121	-687	264	-65	-19	-26	-----	-----	-----	-----	-----	-----	-----	-----	0.920	0.074	1.00	Yes	0.912	0.068	0.99	Yes	1.00	**3.74**
		L_{29} - L_{30}	-----	-1536.44	-907	2584	-361	937	-72	-187	-91	-179	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.158	0.94	Yes	0.773	0.226	1.00	Yes	1.00	**3.03**
		L_{30} - L_{31}	-----	-1466.37	971	-343	2931	-1012	-214	-154	-201	-84	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.182	0.93	Yes	0.738	0.256	1.00	Yes	1.00	**3.63**
		L_{31} - L_{32}	-----	-1478.88	-455	602	238	-846	-589	37	-533	64	-----	-----	-----	-----	-----	-----	-----	-----	0.900	0.099	1.00	Yes	0.892	0.085	0.98	Yes	1.00	**12.02**
		L_{32} - L_{33}	-----	-1039.41	1028	163	801	-774	-176	-126	398	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.129	0.99	Yes	0.852	0.140	1.00	Yes	1.00	**6.62**
		L_{33} - L_{34}	40.40	-723.71	406	208	441	-812	-30	-83	111	-32	0.040	0.157	0.20	Yes	0.024	0.099	0.13	Yes	0.856	0.067	0.93	Yes	0.850	0.142	1.00	Yes	1.00	**5.36**
		L_{34} - L_{35}	696.18	-760.83	745	100	185	-1211	-19	50	246	173	0.621	0.223	0.85	Yes	0.362	0.139	0.51	Yes	0.804	0.153	0.96	Yes	0.799	0.194	1.00	Yes	1.00	**6.96**
		L_{35} - L_{36}	1177.42	-448.54	478	90	131	-1094	89	-64	219	-33	0.824	0.168	1.00	Yes	0.555	0.105	0.66	Yes	0.372	0.113	0.49	Yes	0.369	0.148	0.52	Yes	1.00	**6.06**
		L_{36} - L_{37}	1409.82	-149.62	336	66	-438	-1598	-100	-4	-92	106	0.808	0.185	1.00	Yes	0.531	0.108	0.64	Yes	0.102	0.175	0.28	Yes	0.101	0.176	0.28	Yes	1.00	**4.82**
		L_{37} - L_{38}	1912.14	-----	29	-291	-1756	-1878	-27	-6	-94	-337	0.809	0.186	1.00	Yes	0.538	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.17**
		L_{38} - L_{39}	1884.51	-----	-165	-140	-1828	-1016	-49	1	-115	461	0.809	0.191	1.00	Yes	0.543	0.117	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.58**
		L_{39} - L_{40}	1769.98	-----	-147	-287	-1422	-1028	-43	-32	23	-537	0.825	0.171	1.00	Yes	0.546	0.103	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.18**
		L_{40} - L_{41}	1320.18	-----	-1164	36	-1524	-299	-502	218	-534	216	0.776	0.221	1.00	Yes	0.522	0.138	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.83**
		L_{41} - L_{42}	1014.05	-----	-1220	239	-44	-191	-112	-193	-34	-65	0.799	0.197	1.00	Yes	0.524	0.117	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.80**
		L_{42} - L_{43}	376.26	-----	-1798	604	-71	-98	-518	673	-112	-140	0.481	0.509	1.00	Yes	0.287	0.293	0.59	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.39**
		L_{43} - L_{44}	219.43	-475.13	-1573	541	-60	-17	643	188	-153	-45	0.267	0.426	0.70	Yes	0.159	0.271	0.43	Yes	0.683	0.269	0.96	Yes	0.679	0.320	1.00	Yes	1.00	**11.47**
	Structure 3	L_0 - L_1	137.08	-392.53	8	-107	579	-866	-7	-34	33	148	0.218	0.294	0.52	Yes	0.134	0.196	0.34	Yes	0.741	0.152	0.90	Yes	0.735	0.261	1.00	Yes	1.00	**9.60**
		L_1 - L_2	289.04	-----	77	-121	1024	-1721	-66	3	116	180	0.442	0.554	1.00	Yes	0.299	0.344	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**20.01**
		L_2 - L_3	916.18	-----	-67	-138	269	-967	33	27	123	119	0.798	0.202	1.00	Yes	0.511	0.121	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.04**
		L_3 - L_4	1295.71	-----	57	-346	117	-1182	29	51	41	5	0.819	0.178	1.00	Yes	0.532	0.109	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.10**
		L_4 - L_5	1765.47	-----	-381	-159	-911	-957	116	232	-113	-174	0.863	0.132	1.00	Yes	0.554	0.077	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.80**
		L_5 - L_6	1556.94	-----	-82	-345	-296	-1894	142	78	-98	-139	0.761	0.238	1.00	Yes	0.494	0.144	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.94**
		L_6 - L_7	1307.87	-----	-344	338	-1149	-20	-189	26	-698	801	0.769	0.225	1.00	Yes	0.498	0.139	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.42**
		L_7 - L_8	1117.02	-----	-66	151	-533	-311	-25	44	169	4	0.881	0.114	1.00	Yes	0.564	0.068	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.55**
		L_8 - L_9	232.91	-----	-1879	1320	-261	195	-788	1096	-47	45	0.302	0.689	1.00	Yes	0.181	0.446	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**18.13**
		L_9 - L_{10}	60.44	-541.29	-488	635	-315	128	164	128	249	115	0.078	0.212	0.30	Yes	0.046	0.127	0.18	Yes	0.832	0.090	0.93	Yes	0.825	0.168	1.00	Yes	1.00	**5.75**
		L_{10} - L_{11}	-----	-1080.53	-784	715	196	72	-211	85	148	-211	-----	-----	-----	-----	-----	-----	-----	-----	0.879	0.049	0.93	Yes	0.870	0.123	1.00	Yes	1.00	**8.75**
		L_{11} - L_{12}	-----	-1257.99	-73	1246	-40	474	-234	-401	-169	-208	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.186	1.00	Yes	0.797	0.165	0.97	Yes	1.00	**3.15**
		L_{12} - L_{13}	-----	-1237.02	589	-11	1300	-60	-459	-354	-450	-278	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.201	1.00	Yes	0.783	0.172	0.96	Yes	1.00	**3.18**
		L_{13} - L_{14}	-----	-1159.52	-132	295	301	-239	-127	198	-285	-102	-----	-----	-----	-----	-----	-----	-----	-----	0.944	0.050	1.00	Yes	0.933	0.047	0.99	Yes	1.00	**5.19**
		L_{14} - L_{15}	-----	-750.24	572	170	330	-158	142	-29	99	-133	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.125	1.00	Yes	0.866	0.127	1.00	Yes	1.00	**3.50**
		L_{15} - L_{16}	75.46	-551.04	420	197	332	-509	-4	-46	-84	-109	0.098	0.154	0.26	Yes	0.059	0.101	0.16	Yes	0.847	0.146	1.00	Yes	0.840	0.135	0.98	Yes	1.00	**3.14**
		L_{16} - L_{17}	692.13	-394.14	471	74	-696	-419	113	-69	23	179	0.796	0.197	1.00	Yes	0.473	0.127	0.60	Yes	0.538	0.148	0.69	Yes	0.533	0.168	0.71	Yes	1.00	**5.12**
		L_{17} - L_{18}	707.54	-268.30	204	51	-621	-594	-3	18	174	-89	0.814	0.178	1.00	Yes	0.471	0.106	0.58	Yes	0.367	0.203	0.57	Yes	0.363	0.150	0.52	Yes	1.00	**5.82**
		L_{18} - L_{19}	427.07	-104.81	-812	85	171	-41	-281	466	68	-174	0.654	0.344	1.00	Yes	0.399	0.227	0.63	Yes	0.190	0.182	0.38	Yes	0.189	0.244	0.44	Yes	1.00	**6.35**
		L_{19} - L_{20}	45.30	-297.69	-1277	746	203	-324	1132	308	22	6	0.069	0.626	0.70	Yes	0.041	0.377	0.42	Yes	0.541	0.454	1.00	Yes	0.536	0.383	0.92	Yes	1.00	**23.96**

Moment (End) Al Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 (Vehicle) 1.300 (Pedestrian)
LL Factor: 1.300 1.300

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-280.28	-175	229	-43	70	41	13	-64	-20	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.148	0.85	Yes	0.655	0.340	1.00	Yes	1.00	**2.71**
		$U_1 - L_1$	60.39	-335.96	-200	223	53	-42	-82	6	-13	-27	0.109	0.309	0.42	Yes	0.060	0.170	0.23	Yes	0.734	0.102	0.84	Yes	0.711	0.285	1.00	Yes	1.00	**5.20**
		$U_2 - L_2$	158.37	-304.74	-218	271	136	-152	58	62	141	42	0.285	0.387	0.68	Yes	0.157	0.213	0.37	Yes	0.666	0.141	0.81	Yes	0.645	0.347	1.00	Yes	1.00	**7.70**
		$U_3 - L_3$	286.45	-264.90	-257	299	225	-264	202	141	343	102	0.515	0.481	1.00	Yes	0.283	0.264	0.55	Yes	0.580	0.182	0.77	Yes	0.561	0.382	0.95	Yes	1.00	**12.27**
		$U_4 - L_4$	-----	-352.19	65	-64	194	-195	-5	-23	473	166	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.182	0.96	Yes	0.745	0.249	1.00	Yes	1.00	**5.04**
		$U_5 - L_5$	-----	-419.49	77	-90	239	-265	-202	-62	96	63	-----	-----	-----	-----	-----	-----	-----	-----	0.759	0.129	0.89	Yes	0.724	0.269	1.00	Yes	1.00	**3.26**
		$U_6 - L_6$	-----	-464.21	84	-79	216	-237	-209	-34	810	194	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.248	1.00	Yes	0.701	0.230	0.94	Yes	1.00	**2.94**
		$U_7 - L_7$	-----	-406.24	128	-143	277	-299	-138	38	171	60	-----	-----	-----	-----	-----	-----	-----	-----	0.723	0.142	0.87	Yes	0.663	0.331	1.00	Yes	1.00	**2.28**
		$U_8 - L_8$	-----	-1195.73	-337	394	407	-494	-970	-289	1089	330	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.128	1.00	Yes	0.829	0.092	0.93	Yes	1.00	**6.10**
		$U_9 - L_9$	-----	-631.36	-400	455	-176	205	-235	-172	-249	-99	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.132	0.91	Yes	0.730	0.265	1.00	Yes	1.00	**3.33**
		$U_{10} - L_{10}$	-----	-716.05	-331	343	-123	105	-785	-637	-728	-393	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.222	1.00	Yes	0.736	0.192	0.93	Yes	1.00	**4.32**
		$U_{11} - L_{11}$	-----	-659.56	-384	487	-146	197	-377	-371	-544	-376	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.170	0.97	Yes	0.768	0.226	1.00	Yes	1.00	**3.95**
		$U_{12} - L_{12}$	-----	-531.06	-309	314	-126	121	-109	-190	-330	-237	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.150	0.92	Yes	0.729	0.269	1.00	Yes	1.00	**3.64**
		$U_{13} - L_{13}$	-----	-366.99	-232	259	-79	99	-1	-7	-44	4	-----	-----	-----	-----	-----	-----	-----	-----	0.742	0.098	0.85	Yes	0.703	0.296	1.00	Yes	1.00	**2.92**
		$U_{14} - L_{14}$	-----	-366.64	-137	158	-44	52	448	67	-36	-16	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.175	1.00	Yes	0.776	0.202	0.98	Yes	1.00	**5.78**
		$U_{15} - L_{15}$	88.87	-292.62	-63	60	269	-290	-67	-48	282	201	0.160	0.453	0.62	Yes	0.088	0.249	0.34	Yes	0.656	0.217	0.88	Yes	0.619	0.371	1.00	Yes	1.00	**7.17**
		$U_{16} - L_{16}$	-----	-306.44	23	-27	213	-226	-80	-100	1095	-53	-----	-----	-----	-----	-----	-----	-----	-----	0.691	0.305	1.00	Yes	0.648	0.289	0.94	Yes	1.00	**3.77**
		$U_{17} - L_{17}$	-----	-433.57	56	-71	220	-241	-120	-109	199	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.110	0.93	Yes	0.748	0.244	1.00	Yes	1.00	**3.05**
		$U_{18} - L_{18}$	-----	-534.93	137	-144	419	-436	-130	-115	212	-205	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.090	0.88	Yes	0.744	0.247	1.00	Yes	1.00	**3.34**
		$U_{19} - L_{19}$	-----	-633.66	163	-163	557	-537	-113	-42	251	-56	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.115	0.91	Yes	0.738	0.259	1.00	Yes	1.00	**3.85**
		$U_{20} - L_{20}$	-----	-561.25	159	-258	273	-462	22	3	531	70	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.221	1.00	Yes	0.687	0.222	0.91	Yes	1.00	**2.48**
	Structure 2	$U_0 - L_0$	-----	-662.09	-457	562	-144	187	28	5	-74	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.119	0.96	Yes	0.742	0.254	1.00	Yes	1.00	**3.78**
		$U_1 - L_1$	-----	-725.90	-479	513	-94	102	-102	23	-121	-28	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.077	0.91	Yes	0.778	0.218	1.00	Yes	1.00	**4.78**
		$U_2 - L_2$	-----	-588.46	-454	471	-83	93	-10	-1	-95	-45	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.079	0.87	Yes	0.750	0.241	1.00	Yes	1.00	**4.13**
		$U_3 - L_3$	-----	-493.72	-222	240	-42	49	-43	-19	100	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.079	0.92	Yes	0.774	0.219	1.00	Yes	1.00	**3.60**
		$U_4 - L_4$	-----	-341.39	-203	210	4	4	-84	-8	284	85	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.162	0.94	Yes	0.722	0.268	1.00	Yes	1.00	**3.82**
		$U_5 - L_5$	100.52	-332.51	-194	225	76	-71	-47	-34	314	189	0.181	0.378	0.56	Yes	0.099	0.208	0.31	Yes	0.751	0.210	0.97	Yes	0.704	0.287	1.00	Yes	1.00	**5.35**
		$U_6 - L_6$	270.12	-282.58	-299	312	172	-192	163	-38	362	253	0.486	0.504	0.99	Yes	0.267	0.277	0.55	Yes	0.636	0.245	0.89	Yes	0.598	0.399	1.00	Yes	1.00	**11.17**
		$U_7 - L_7$	-----	-267.29	52	-59	278	-322	37	6	998	199	-----	-----	-----	-----	-----	-----	-----	-----	0.604	0.389	1.00	Yes	0.566	0.411	0.98	Yes	1.00	**15.31**
		$U_8 - L_8$	-----	-455.33	115	-127	370	-387	-62	-112	125	-58	-----	-----	-----	-----	-----	-----	-----	-----	0.660	0.111	0.78	Yes	0.656	0.339	1.00	Yes	1.00	**4.53**
		$U_9 - L_9$	-----	-697.23	199	-199	549	-584	-105	-119	1383	171	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.201	0.98	Yes	0.747	0.248	1.00	Yes	1.00	**4.71**
		$U_{10} - L_{10}$	-----	-789.35	182	-183	550	-585	-134	-68	339	-172	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.101	0.89	Yes	0.738	0.258	1.00	Yes	1.00	**4.67**
		$U_{11} - L_{11}$	-----	-815.17	185	-183	512	-533	-162	-42	141	-175	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.098	0.92	Yes	0.762	0.235	1.00	Yes	1.00	**4.03**
		$U_{12} - L_{12}$	-----	-884.19	145	-115	518	-531	-127	32	235	-44	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.106	0.96	Yes	0.766	0.228	1.00	Yes	1.00	**4.08**
		$U_{13} - L_{13}$	-----	-680.41	215	-219	547	-541	-137	8	796	100	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.241	1.00	Yes	0.656	0.262	0.92	Yes	1.00	**3.11**
		$U_{14} - L_{14}$	-----	-1110.85	-308	284	656	-627	-640	-23	1041	657	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.183	1.00	Yes	0.737	0.116	0.86	Yes	1.00	**5.40**
		$U_{15} - L_{15}$	-----	-699.91	-669	664	-76	89	-33	60	-315	34	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.163	0.95	Yes	0.675	0.320	1.00	Yes	1.00	**5.58**
		$U_{16} - L_{16}$	-----	-700.35	-463	413	-61	34	-602	-241	-819	-248	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.183	1.00	Yes	0.751	0.196	0.95	Yes	1.00	**3.98**
		$U_{17} - L_{17}$	-----	-640.14	-543	533	-118	108	-298	-302	-483	-306	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.156	0.95	Yes	0.745	0.252	1.00	Yes	1.00	**3.57**
		$U_{18} - L_{18}$	-----	-605.55	-412	437	-113	100	69	-203	-188	-188	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.086	0.90	Yes	0.772	0.224	1.00	Yes	1.00	**3.21**
		$U_{19} - L_{19}$	-----	-477.83	-286	289	-73	71	-122	-150	-176	-100	-----	-----	-----	-----	-----	-----	-----	-----	0.719	0.105	0.83	Yes	0.714	0.278	1.00	Yes	1.00	**3.91**
		$U_{20} - L_{20}$	-----	-382.28	-214	226	-42	40	-20	-99	-201	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.130	0.92	Yes	0.732	0.258	1.00	Yes	1.00	**4.02**
		$U_{21} - L_{21}$	-----	-315.21	-239	256	-29	31	43	3	-83	-16	-----	-----	-----	-----	-----	-----	-----	-----	0.712	0.115	0.83	Yes	0.667	0.327	1.00	Yes	1.00	**4.57**
		$U_{22} - L_{22}$	-----	-286.49	-170	199	130	-146	947	268	1049	299	-----	-----	-----	-----	-----	-----	-----	-----	0.645	0.354	1.00	Yes	0.606	0.254	0.87	Yes	1.00	**17.38**
		$U_{23} - L_{23}$	-----	-304.94	14	-15	261	-276	-100	-3	235	159	-----	-----	-----	-----	-----	-----	-----	-----	0.689	0.174	0.87	Yes	0.645	0.353	1.00	Yes	1.00	**5.71**
		$U_{24} - L_{24}$	-----	-340.43	43	-48	198	-215	-70	-7	1003	95	-----	-----	-----	-----	-----	-----	-----	-----	0.698	0.300	1.00	Yes	0.652	0.246	0.90	Yes	1.00	**3.44**
		$U_{25} - L_{25}$	-----	-469.69	53	-49	309	-305	-92	10	383	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.120	0.83	Yes	0.701	0.297	1.00	Yes	1.00	**3.74**
		$U_{26} - L_{26}$	-----	-594.75	81	-74	430	-467	-137	27	449	22	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.122	0.92	Yes	0.758	0.239	1.00	Yes	1.00	**3.35**
		$U_{27} - L_{27}$	-----	-630.14	81	-79	561	-565	-187	53	250	156	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.094	0.88	Yes	0.733	0.262	1.00	Yes	1.00	**3.62**
		$U_{28} - L_{28}$	-----	-683.90	54	-34	477	-454	-231	74	1117	157	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.207	1.00	Yes	0.733	0.202	0.94	Yes	1.00	**3.54**
		$U_{29} - L_{29}$	-----	-694.73	101	-112	664	-654	-174	36	483	103	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.218	1.00	Yes	0.670	0.318	0.99	Yes	1.00	**4.69**
		$U_{30} - L_{30}$	-----	-1153.75	-703	637	717	-709	-1008	225	1377	114	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.132	1.00	Yes	0.780	0.129	0.91	Yes	1.00	**8.34**
		$U_{31} - L_{31}$	-----	-738.13	-585	582	-98	98	-47	34	-314	-20	-----	-----	-----	-----	-----	-----	-----	-----	0.823	0.163	0.99	Yes	0.712	0.280	1.00	Yes	1.00	**4.86**
		$U_{32} - L_{32}$	-----	-837.44	-440	399	-79	53	-482	-234	-687	-264	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.189	1.00	Yes	0.726	0.189	0.92	Yes	1.00	**4.31**
		$U_{33} - L_{33}$	-----	-837.07	-410	426	-119	105	-34	-272	-432	-344	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.145	1.00	Yes	0.789	0.191	0.98	Yes	1.00	**4.24**
		$U_{34} - L_{34}$	-----	-807.36	-505	541	-125	111	-222	-390	-322	-334	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.126	0.93	Yes	0.755	0.239	1.00	Yes	1.00	**5.66**
		$U_{35} - L_{35}$	-----	-707.40	-518	555	-148	144	-32	-102	-122	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.071	0.86	Yes	0.758	0.236	1.00	Yes	1.00	**5.23**
		$U_{36} - L_{36}$	-----	-475.57	-341	359	-82	92	105	35	89	71	-----	-----	-----	-----	-----	-----	-----	-----	0.690	0.102	0.80	Yes	0.685	0.314	1.00	Yes	1.00	**4.33**
		$U_{37} - L_{37}$	-----	-259.55	-296	350	-42	50	660	159	74	31	-----	-----	-----	-----	-----	-----	-----	-----	0.586	0.327	0.92	Yes	0.549	0.447	1.00	Yes	1.00	**14.80**
		$U_{38} - L_{38}$	299.78	-176.80	-229	253	257	-254	218	118	431	372	0.539	0.453	1.00	Yes	0.297	0.249	0.55	Yes	0.398	0.189	0.59	Yes	0.374	0.328	0.71	Yes	1.00	**13.93**
		$U_{39} - L_{39}$	94.02	-278.16	-82	80	158	-184	61	0	1245	51	0.169	0.596	0.77	Yes	0.093	0.328	0.43	Yes	0.628	0.365	1.00	Yes	0.589	0.236	0.83	Yes	1.00	**4.98**
		$U_{40} - L_{40}$	33.66	-339.69	-30	23	214	-218	14	-22	305	-81	0.061	0.366	0.43	Yes	0.033	0.202	0.24	Yes	0.770	0.123	0.90	Yes	0.719	0.278	1.00	Yes	1.00	**4.02**
		$U_{41} - L_{41}$	-----	-484.88	12	-16	238	-253	10	-20	204	-121	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.085	0.92	Yes	0.760	0.230	1.00	Yes	1.00	**3.70**
		$U_{42} - L_{42}$	-----	-586.20	34	-43	471	-485	12	-27	269	-168	-----	-----	-----	-----	-----	-----	-----	-----	0.785	0.076	0.87	Yes	0.747	0.248	1.00	Yes	1.00	**4.01**
		$U_{43} - L_{43}$	-----	-700.50	51	-66	576	-573	-58	-58	332	91	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.106	0.91	Yes	0.751	0.244	1.00	Yes	1.00	**4.42**
		$U_{44} - L_{44}$	-----	-635.55	109	-121	283	-455	-161	-27	934	158	-----	-----	-----	-----	-----	-----	-----	-----	0.761	0.231	1.00	Yes	0.681	0.193	0.88	Yes	1.00	**3.31**
	Structure 3	$U_0 - L_0$	-----	-617.32	-466	539	-134	181	211	28	-59	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.149	0.99	Yes	0.741	0.258	1.00	Yes	1.00	**4.36**
		$U_1 - L_1$	-----	-664.92	-447	473	-104	117	-22	127	-121	-3	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.081	0.92	Yes	0.774	0.219	1.00	Yes	1.00	**5.19**
		$U_2 - L_2$	-----	-543.91	-405	423	-102	108	20	26	-143	-44	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.088	0.89	Yes	0.757	0.240	1.00	Yes	1.00	**4.36**
		$U_3 - L_3$	-----	-446.89	-196	218	-41	54	1	-22	49	-62	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.083	0.92	Yes	0.771	0.221	1.00	Yes	1.00	**3.70**
		$U_4 - L_4$	-----	-328.28	-217	231	-11	17	-40	15	231	50	-----	-----	-----	-----	-----	-----	-----	-----	0.740	0.146	0.89	Yes	0.695	0.296	1.00	Yes	1.00	**4.44**
		$U_5 - L_5$	60.06	-307.33	-247	267	47	-44	-5	19	229	155	0.108	0.408	0.52	Yes	0.059	0.224	0.29	Yes	0.689	0.184	0.88	Yes	0.650	0.342	1.00	Yes	1.00	**5.85**
		$U_6 - L_6$	-----	-285.30	36	-38	88	-94	1163	392	383	61	-----	-----	-----	-----	-----	-----	-----	-----	0.637	0.362	1.00	Yes	0.604	0.121	0.73	Yes	1.00	**4.33**
		$U_7 - L_7$	-----	-358.83	69	-81	246	-266	-8	-83	86	-19	-----	-----	-----	-----	-----	-----	-----	-----	0.725	0.107	0.84	Yes	0.687	0.304	1.00	Yes	1.00	**3.54**
		$U_8 - L_8$	-----	-511.74	111	-108	308	-317	-61	-120	1120	217	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.256	1.00	Yes	0.702	0.271	0.98	Yes	1.00	**3.69**
		$U_9 - L_9$	-----	-652.24	130	-168	416	-513	-180	-136	240	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.121	0.91	Yes	0.759	0.238	1.00	Yes	1.00	**4.03**
		$U_{10} - L_{10}$	-----	-781.22	134	-109	393	-432	-13	40	335	-9	-----	-----	-----	-----	-----	-----	-----	-----	0.809	0.088	0.90	Yes	0.771	0.224	1.00	Yes	1.00	**4.67**
		$U_{11} - L_{11}$	-----	-644.01	168	-193	429	-488	-111	-11	362	135	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.147	0.92	Yes	0.727	0.271	1.00	Yes	1.00	**3.26**
		$U_{12} - L_{12}$	-----	-1151.45	-253	267	441	-580	-678	-108	1139	526	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.164	1.00	Yes	0.798	0.108	0.91	Yes	1.00	**5.82**
		$U_{13} - L_{13}$	-----	-444.10	-292	315	-70	81	-27	45	-209	-2	-----	-----	-----	-----	-----	-----	-----	-----	0.742	0.144	0.89	Yes	0.685	0.310	1.00	Yes	1.00	**3.85**
		$U_{14} - L_{14}$	-----	-514.57	-230	247	-46	25	-720	-480	-725	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.217	1.00	Yes	0.738	0.216	0.96	Yes	1.00	**4.81**
		$U_{15} - L_{15}$	-----	-436.60	-227	237	-51	50	-311	-269	-455	-297	-----	-----	-----	-----	-----	-----	-----	-----	0.790	0.190	0.99	Yes	0.753	0.241	1.00	Yes	1.00	**3.70**
		$U_{16} - L_{16}$	-----	-351.14	-191	197	-52	52	173	-41	-114	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.772	0.121	0.90	Yes	0.743	0.252	1.00	Yes	1.00	**5.12**
		$U_{17} - L_{17}$	308.48	-211.55	-268	309	202	-221	-25	99	-46	139	0.555	0.435	1.00	Yes	0.305	0.240	0.55	Yes	0.464	0.130	0.60	Yes	0.448	0.395	0.85	Yes	1.00	**13.11**
		$U_{18} - L_{18}$	142.62	-249.34	-131	147	153	-198	-149	22	1610	372	0.257	0.719	0.98	Yes	0.141	0.395	0.54	Yes	0.545	0.451	1.00	Yes	0.528	0.253	0.79	Yes	1.00	**5.75**
		$U_{19} - L_{19}$	84.25	-312.85	-87	72	260	-243	-91	20	253	52	0.152	0.406	0.56	Yes	0.083	0.223	0.31	Yes	0.684	0.143	0.83	Yes	0.662	0.333	1.00	Yes	1.00	**4.58**
		$U_{20} - L_{20}$	10.80	-308.25	13	-15	61	-169	-74	-24	674	216	0.019	0.412	0.44	Yes	0.012	0.226	0.24	Yes	0.688	0.305	1.00	Yes	0.652	0.216	0.87	Yes	1.00	**2.66**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

				Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
		Vehicle	Pedestrian	Max. Tension	Max. Comp.	Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
						Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
				(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
North Truss - Diagonals	Structure 1	U_0 - L_1		630.75	-72.64	-127	74	-4	-11	-35	-93	17	49	0.827	0.172	1.00	Yes	0.500	0.095	0.60	Yes	0.124	0.097	0.23	Yes	0.112	0.148	0.27	Yes	1.00	**5.94**
		U_1 - L_2		460.98	-168.46	-90	8	31	-25	-163	-120	34	20	0.829	0.162	1.00	Yes	0.456	0.089	0.55	Yes	0.386	0.149	0.54	Yes	0.356	0.115	0.48	Yes	1.00	**6.38**
		U_2 - L_3		422.63	-107.43	-156	2	-34	-47	-122	-138	83	-2	0.760	0.240	1.00	Yes	0.418	0.132	0.55	Yes	0.247	0.208	0.46	Yes	0.227	0.200	0.43	Yes	1.00	**10.76**
		U_3 - L_4		-----	-322.08	55	-6	-70	-113	124	126	-154	-378	-----	-----	-----	-----	-----	-----	-----	-----	0.736	0.259	1.00	Yes	0.682	0.144	0.83	Yes	1.00	**7.00**
		U_4 - L_5		535.70	-----	-7	67	-105	0	48	4	-418	-368	0.793	0.204	1.00	Yes	0.436	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.18**
		U_5 - L_6		622.82	-----	-152	258	-49	101	-640	-182	33	-33	0.736	0.263	1.00	Yes	0.405	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		U_6 - L_7		665.50	-----	-285	285	-95	102	-114	-230	153	48	0.787	0.204	1.00	Yes	0.433	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.63**
		U_7 - L_8		642.64	-----	-55	356	-12	133	37	-13	170	99	0.760	0.234	1.00	Yes	0.418	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.94**
		U_8 - L_9		917.64	-----	28	423	21	144	584	341	346	99	0.734	0.263	1.00	Yes	0.454	0.148	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.26**
		U_9 - L_{10}		969.19	-----	-267	309	-78	89	627	545	172	131	0.775	0.217	1.00	Yes	0.480	0.123	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.12**
		U_{10} - L_{11}		969.10	-----	-186	255	-84	96	398	463	31	146	0.819	0.179	1.00	Yes	0.507	0.101	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.68**
		U_{11} - L_{12}		845.30	-----	-231	153	-91	39	356	366	41	103	0.836	0.162	1.00	Yes	0.460	0.089	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.38**
		U_{12} - L_{13}		648.60	-----	-203	173	-85	63	163	73	-13	-34	0.791	0.209	1.00	Yes	0.497	0.117	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.71**
		U_{13} - L_{14}		457.36	-----	-106	30	-32	11	26	-60	-65	-112	0.823	0.168	1.00	Yes	0.452	0.092	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.63**
		U_{15} - L_{14}		147.12	-31.72	-1	-30	-187	-223	-129	-135	-1524	-660	0.265	0.726	1.00	Yes	0.146	0.399	0.55	Yes	0.074	0.702	0.78	Yes	0.067	0.285	0.36	Yes	1.00	**21.03**
		U_{16} - L_{15}		297.99	-12.88	-119	72	-11	-6	-1058	-212	-83	-81	0.536	0.458	1.00	Yes	0.295	0.252	0.55	Yes	0.031	0.328	0.36	Yes	0.027	0.152	0.18	Yes	1.00	**4.17**
		U_{17} - L_{16}		490.36	-----	-138	89	-32	12	-576	-535	-105	-126	0.719	0.274	1.00	Yes	0.395	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.08**
		U_{18} - L_{17}		584.00	-----	-303	244	-109	73	-743	-523	-106	-113	0.690	0.306	1.00	Yes	0.380	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.33**
		U_{19} - L_{18}		641.94	-----	-338	248	-130	85	-757	-534	-60	-101	0.695	0.297	1.00	Yes	0.382	0.163	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.20**
		U_{20} - L_{19}		674.50	-----	-170	227	-94	91	-901	-378	-87	-35	0.731	0.265	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.53**
	Structure 2	U_0 - L_1		799.46	-----	-425	393	-96	81	-22	-70	-55	-29	0.791	0.208	1.00	Yes	0.435	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.01**
		U_1 - L_2		802.33	-----	-394	327	-72	51	-128	-43	-81	-6	0.794	0.202	1.00	Yes	0.437	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.08**
		U_2 - L_3		661.06	-----	-350	278	-62	45	-21	-18	1	111	0.782	0.218	1.00	Yes	0.430	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.31**
		U_3 - L_4		593.56	-----	-191	137	-24	4	-39	-46	135	75	0.791	0.203	1.00	Yes	0.435	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.14**
		U_4 - L_5		428.93	-86.74	-149	102	17	-25	-112	-13	105	-95	0.771	0.222	1.00	Yes	0.424	0.122	0.55	Yes	0.214	0.091	0.31	Yes	0.184	0.190	0.38	Yes	1.00	**4.95**
		U_5 - L_6		424.30	-219.37	-138	60	66	-64	-72	2	11	-173	0.763	0.227	1.00	Yes	0.420	0.125	0.55	Yes	0.518	0.179	0.70	Yes	0.464	0.177	0.65	Yes	1.00	**7.06**
		U_6 - L_7		-----	-385.51	9	-31	31	-109	-107	-202	124	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.825	0.165	1.00	Yes	0.739	0.125	0.87	Yes	1.00	**8.28**
		U_8 - L_7		477.31	-----	-161	119	-96	34	-467	-380	-1174	-797	0.609	0.384	1.00	Yes	0.383	0.223	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.72**
		U_8 - L_9		608.52	-----	-309	195	-126	91	-1069	-455	-158	-170	0.659	0.334	1.00	Yes	0.363	0.184	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.39**
		U_{10} - L_9		757.95	-----	-320	202	-111	87	-614	-667	-110	-140	0.750	0.248	1.00	Yes	0.412	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.73**
		U_{11} - L_{10}		825.02	-----	-336	266	-127	118	-717	-543	-31	-106	0.752	0.241	1.00	Yes	0.413	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		U_{12} - L_{11}		876.81	-----	-344	366	-138	151	-336	-263	55	-19	0.799	0.201	1.00	Yes	0.439	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.49**
		U_{13} - L_{12}		744.16	-----	-428	380	-143	146	-419	-240	375	157	0.736	0.261	1.00	Yes	0.405	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.00**
		U_{14} - L_{13}		713.54	-----	-203	443	4	147	-89	-245	589	218	0.706	0.294	1.00	Yes	0.388	0.161	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.94**
		U_{14} - L_{15}		581.93	-----	-112	392	60	38	464	44	243	-62	0.688	0.306	1.00	Yes	0.378	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.65**
		U_{15} - L_{16}		628.50	-----	-374	358	-30	38	208	131	-66	-19	0.743	0.249	1.00	Yes	0.409	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.47**
		U_{16} - L_{17}		705.07	-----	-305	372	-38	80	41	242	-219	101	0.764	0.230	1.00	Yes	0.420	0.127	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.64**
		U_{17} - L_{18}		647.00	-----	-282	296	-48	81	184	326	-46	176	0.765	0.227	1.00	Yes	0.421	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.27**
		U_{18} - L_{19}		619.25	-----	-303	308	-19	76	499	244	86	120	0.732	0.265	1.00	Yes	0.403	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.03**
		U_{19} - L_{20}		596.69	-----	-206	173	-10	40	235	213	15	86	0.761	0.233	1.00	Yes	0.418	0.131	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.78**
		U_{20} - L_{21}		438.23	-----	-133	112	-11	24	128	50	-24	32	0.788	0.207	1.00	Yes	0.433	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.49**
		U_{21} - L_{22}		411.39	-23.08	-133	57	-45	-51	286	104	211	-43	0.740	0.253	1.00	Yes	0.407	0.139	0.55	Yes	0.055	0.156	0.22	Yes	0.049	0.170	0.22	Yes	1.00	**10.68**
		U_{23} - L_{22}		352.39	-125.44	-126	40	-23	-70	-687	-335	-577	-165	0.634	0.360	1.00	Yes	0.349	0.198	0.55	Yes	0.299	0.327	0.63	Yes	0.265	0.161	0.43	Yes	1.00	**10.86**
		U_{24} - L_{23}		332.51	-----	-109	84	-26	19	-876	-168	-284	-167	0.598	0.393	1.00	Yes	0.329	0.216	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.83**
		U_{25} - L_{24}		547.44	-----	-192	161	-54	53	-604	-595	-326	-199	0.698	0.295	1.00	Yes	0.384	0.169	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.16**
		U_{26} - L_{25}		615.49	-----	-269	251	-60	76	-622	-422	20	-28	0.728	0.265	1.00	Yes	0.400	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.13**
		U_{27} - L_{26}		653.48	-----	-282	292	-39	81	-327	-243	262	120	0.773	0.225	1.00	Yes	0.425	0.124	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.43**
		U_{28} - L_{27}		651.99	-----	-300	355	-40	80	-668	-107	276	160	0.706	0.292	1.00	Yes	0.388	0.160	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.36**
		U_{29} - L_{28}		605.67	-----	-351	337	-53	61	-141	-241	453	236	0.716	0.281	1.00	Yes	0.394	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.54**
		U_{30} - L_{29}		611.70	-----	-153	388	29	62	-162	-70	285	156	0.723	0.271	1.00	Yes	0.398	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.83**
		U_{30} - L_{31}		701.58	-----	-172	485	33	60	513	78	282	-22	0.694	0.302	1.00	Yes	0.382	0.166	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.71**
		U_{31} - L_{32}		726.82	-----	-414	384	-62	71	227	136	-45	18	0.755	0.242	1.00	Yes	0.415	0.124	0.54	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.30**
		U_{32} - L_{33}		871.45	-----	-339	362	-55	97	94	325	-184	131	0.794	0.198	1.00	Yes	0.437	0.109	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.17**
		U_{33} - L_{34}		828.87	-----	-371	364	-70	91	611	443	17	220	0.755	0.241	1.00	Yes	0.415	0.133	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.21**
		U_{34} - L_{35}		809.70	-----	-328	227	-87	73	263	205	79	25	0.801	0.191	1.00	Yes	0.441	0.105	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.97**
		U_{35} - L_{36}		730.58	-----	-351	242	-100	72	124	44	-1	-53	0.791	0.200	1.00	Yes	0.435	0.110	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.73**
		U_{36} - L_{37}		606.60	-----	-201	172	-48	44	226	100	-54	-107	0.773	0.226	1.00	Yes	0.487	0.127	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.98**
		U_{38} - L_{37}		-----	-364.95	8	-23	37	-92	-151	-128	-359	-92	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.208	1.00	Yes	0.699	0.104	0.81	Yes	1.00	**6.49**
		U_{38} - L_{39}		253.36	-197.99	-96	24	60	-57	-1437	-252	-32	-16	0.456	0.538	1.00	Yes	0.251	0.296	0.55	Yes	0.472	0.494	0.97	Yes	0.419	0.122	0.55	Yes	1.00	**6.28**
		U_{40} - L_{39}		370.09	-107.48	-137	87	26	-28	-498	-547	-37	-35	0.666	0.333	1.00	Yes	0.366	0.183	0.55	Yes	0.257	0.281	0.54	Yes	0.227	0.175	0.41	Yes	1.00	**4.83**
		U_{41} - L_{40}		529.28	-----	-170	120	-8	-6	-638	-411	-71	-60	0.706	0.289	1.00	Yes	0.388	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.68**
		U_{42} - L_{41}		588.62	-----	-312	253	-34	19	-688	-480	-46	-45	0.696	0.301	1.00	Yes	0.383	0.166	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.77**
		U_{43} - L_{42}		715.30	-----	-384	301	-50	31	-735	-540	12	-31	0.708	0.288	1.00	Yes	0.389	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.02**
		U_{44} - L_{43}		727.83	-----	-198	284	-87	70	-956	-303	81	-19	0.720	0.275	1.00	Yes	0.396	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.20**
	Structure 3	U_0 - L_1		699.04	-----	-421	338	-108	90	29	-132	-65	-53	0.757	0.237	1.00	Yes	0.416	0.130	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.14**
		U_1 - L_2		726.43	-----	-342	268	-92	60	-175	-74	-127	-45	0.787	0.204	1.00	Yes	0.433	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.42**
		U_2 - L_3		664.50	-----	-352	270	-88	54	-16	-5	-47	80	0.786	0.214	1.00	Yes	0.432	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.12**
		U_3 - L_4		557.56	-----	-161	111	-24	5	1	-31	77	48	0.818	0.181	1.00	Yes	0.450	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.53**
		U_4 - L_5		431.14	-49.72	-148	103	-2	-14	-94	-54	51	-107	0.775	0.220	1.00	Yes	0.426	0.121	0.55	Yes	0.118	0.091	0.21	Yes	0.105	0.189	0.30	Yes	1.00	**5.68**
		U_5 - L_6		378.81	-20.71	-2	-25	-203	-135	-59	-194	-173	-182	0.681	0.316	1.00	Yes	0.375	0.174	0.55	Yes	0.049	0.279	0.33	Yes	0.044	0.260	0.31	Yes	1.00	**16.48**
		U_7 - L_6		394.78	-----	-38	32	-106	-10	-156	-206	-514	-400	0.710	0.285	1.00	Yes	0.391	0.157	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.18**
		U_8 - L_7		536.21	-----	-182	141	-70	49	-952	-374	-198	-183	0.654	0.344	1.00	Yes	0.411	0.198	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.47**
		U_8 - L_9		792.20	-----	-234	127	-80	29	-688	-720	-169	-205	0.784	0.216	1.00	Yes	0.431	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.06**
		U_{10} - L_9		948.85	-----	-204	231	-75	68	-627	-541	-89	-139	0.801	0.189	1.00	Yes	0.496	0.107	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.54**
		U_{11} - L_{10}		993.09	-----	-281	306	-95	86	-475	-354	54	-20	0.794	0.197	1.00	Yes	0.492	0.111	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.72**
		U_{12} - L_{11}		975.85	-----	-15	422	-3	129	-230	-136	216	144	0.780	0.218	1.00	Yes	0.483	0.121	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.11**
		U_{12} - L_{13}		624.07	-----	-19	367	38	84	260	10	199	-27	0.738	0.256	1.00	Yes	0.406	0.141	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.61**
		U_{13} - L_{14}		670.82	-----	-274	304	-51	66	172	154	-96	21	0.793	0.205	1.00	Yes	0.436	0.113	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.39**
		U_{14} - L_{15}		668.92	-----	-133	273	-22	67	107	252	-59	75	0.791	0.202	1.00	Yes	0.435	0.111	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.47**
		U_{15} - L_{16}		568.18	-----	7	78	-112	8	130	213	45	150	0.833	0.164	1.00	Yes	0.458	0.090	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.93**
		U_{17} - L_{16}		-----	-272.28	56	8	-93	-148	521	317	-607	-280	-----	-----	-----	-----	-----	-----	-----	-----	0.623	0.373	1.00	Yes	0.576	0.190	0.77	Yes	1.00	**10.52**
		U_{18} - L_{17}		-----	-242.46	3	-11	4	-45	12	18	-1628	-107	-----	-----	-----	-----	-----	-----	-----	-----	0.558	0.441	1.00	Yes	0.513	0.057	0.58	Yes	1.00	**8.20**
		U_{19} - L_{18}		382.22	-183.70	-102	21	36	-24	-614	-558	248	194	0.687	0.309	1.00	Yes	0.378	0.170	0.55	Yes	0.421	0.318	0.74	Yes	0.389	0.131	0.52	Yes	1.00	**4.86**
		U_{20} - L_{19}		324.85	-403.59	-107	54	-25	-28	-459	-459	552	538	0.426	0.264	0.70	Yes	0.257	0.145	0.41	Yes	0.689	0.301	1.00	Yes	0.623	0.125	0.75	Yes	1.00	**12.15**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 Vehicle 1.300 Pedestrian
LL Factor: 1.300 1.300

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Upper Chord	Structure 1	$U_0 - U_1$	108.72	-597.31	-250	223	168	-797	-27	-63	357	-456	0.125	0.267	0.40	Yes	0.086	0.182	0.27	Yes	0.813	0.172	0.99	Yes	0.805	0.189	1.00	Yes	1.00	**11.94**
		$U_1 - U_2$	131.85	-577.98	-40	174	-211	-634	-49	41	258	-167	0.151	0.194	0.35	Yes	0.104	0.133	0.24	Yes	0.786	0.209	1	Yes	0.779	0.151	0.94	Yes	1.00	**6.14**
		$U_2 - U_3$	286.19	-653.30	-39	393	-381	-322	-60	-89	384	-138	0.328	0.158	0.49	Yes	0.221	0.104	0.33	Yes	0.889	0.105	1	Yes	0.881	0.093	0.98	Yes	1.00	**6.66**
		$U_3 - U_4$	370.27	-551.31	124	297	-322	-763	-116	-96	19	-171	0.424	0.210	0.64	Yes	0.291	0.144	0.44	Yes	0.750	0.244	1	Yes	0.743	0.181	0.93	Yes	1.00	**5.34**
		$U_4 - U_5$	432.47	-586.96	135	345	-843	-156	-118	47	-101	-192	0.496	0.233	0.73	Yes	0.340	0.160	0.50	Yes	0.799	0.199	1	Yes	0.792	0.201	1.00	Yes	1.00	**6.49**
		$U_5 - U_6$	241.67	-491.27	-172	847	-488	138	-88	-270	53	-852	0.277	0.345	0.63	Yes	0.187	0.228	0.42	Yes	0.668	0.326	1	Yes	0.662	0.201	0.87	Yes	1.00	**9.62**
		$U_6 - U_7$	888.45	-----	350	216	-473	8	-354	146	-100	-106	0.850	0.149	1.00	Yes	0.594	0.103	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.20**
		$U_7 - U_8$	968.60	-----	-458	1870	-62	684	-360	295	-243	174	0.671	0.320	1.00	Yes	0.468	0.218	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.68**
		$U_8 - U_9$	805.59	-----	1032	-61	1705	-874	-104	99	143	430	0.660	0.339	1.00	Yes	0.452	0.231	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.55**
		$U_9 - U_{10}$	721.05	-57.85	257	347	199	-570	69	306	426	537	0.782	0.214	1.00	Yes	0.530	0.143	0.68	Yes	0.074	0.249	0.33	Yes	0.074	0.128	0.21	Yes	1.00	**11.66**
		$U_{10} - U_{11}$	290.82	-613.75	316	-4	281	-967	191	54	530	51	0.315	0.302	0.62	Yes	0.210	0.195	0.41	Yes	0.790	0.209	1	Yes	0.783	0.217	1.00	Yes	1.00	**8.41**
		$U_{11} - U_{12}$	-----	-892.16	202	-95	-48	-729	141	47	407	211	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.149	1	Yes	0.837	0.121	0.96	Yes	1.00	**5.40**
		$U_{12} - U_{13}$	-----	-1301.60	1	-152	-175	-604	219	-25	368	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.880	0.115	1	Yes	0.869	0.083	0.96	Yes	1.00	**5.82**
		$U_{13} - U_{14}$	-----	-1358.82	-112	-357	-433	-1673	151	60	178	-5	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.211	1	Yes	0.779	0.185	0.97	Yes	1.00	**4.27**
		$U_{14} - U_{15}$	-----	-1344.39	-254	-188	-1557	-579	182	-56	265	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.213	1	Yes	0.771	0.172	0.95	Yes	1.00	**4.19**
		$U_{15} - U_{16}$	-----	-1464.18	-60	-414	-450	-990	19	-62	187	-556	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.147	1	Yes	0.839	0.109	0.95	Yes	1.00	**5.03**
		$U_{16} - U_{17}$	-----	-1426.71	-314	-186	-1278	-460	48	-170	180	-236	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.172	1	Yes	0.818	0.141	0.96	Yes	1.00	**5.41**
		$U_{17} - U_{18}$	-----	-1076.50	-619	16	-164	-109	-140	-417	-151	-182	-----	-----	-----	-----	-----	-----	-----	-----	0.853	0.139	1	Yes	0.842	0.101	0.95	Yes	1.00	**5.22**
		$U_{18} - U_{19}$	-----	-655.53	-578	27	-419	-37	-227	-295	-1085	-495	-----	-----	-----	-----	-----	-----	-----	-----	0.744	0.255	1	Yes	0.738	0.116	0.86	Yes	1.00	**4.34**
		$U_{19} - U_{20}$	-----	-630.98	-1357	915	-120	-171	-783	-364	9	37	-----	-----	-----	-----	-----	-----	-----	-----	0.716	0.279	1	Yes	0.710	0.273	0.99	Yes	1.00	**18.05**
	Structure 2	$U_0 - U_1$	-----	-655.79	161	-48	-27	-1314	105	191	299	-85	-----	-----	-----	-----	-----	-----	-----	-----	0.779	0.198	0.98	Yes	0.774	0.223	1.00	Yes	1.00	**9.79**
		$U_1 - U_2$	-----	-811.99	-109	-101	-92	-844	347	685	285	-120	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.205	1	Yes	0.784	0.128	0.92	Yes	1.00	**4.96**
		$U_2 - U_3$	-----	-1177.70	-85	-166	-218	-1113	633	-10	151	20	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.152	1	Yes	0.836	0.113	0.95	Yes	1.00	**5.13**
		$U_3 - U_4$	-----	-1440.61	-342	-235	-909	-1124	97	-346	432	338	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.164	1	Yes	0.820	0.100	0.93	Yes	1.00	**4.82**
		$U_4 - U_5$	-----	-1562.16	-334	-258	-1013	-1474	-113	-393	589	36	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.192	1	Yes	0.802	0.122	0.93	Yes	1.00	**4.70**
		$U_5 - U_6$	-----	-1650.52	-320	132	-1205	-649	-164	-336	166	-283	-----	-----	-----	-----	-----	-----	-----	-----	0.854	0.137	1	Yes	0.847	0.100	0.95	Yes	1.00	**5.09**
		$U_6 - U_7$	-----	-1372.65	-215	-31	-856	-1495	-113	-277	-5	-405	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.204	1	Yes	0.782	0.133	0.92	Yes	1.00	**3.95**
		$U_7 - U_8$	-----	-1382.98	-123	-152	-1589	-746	-208	-232	-145	-339	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.204	1	Yes	0.787	0.142	0.93	Yes	1.00	**4.01**
		$U_8 - U_9$	-----	-1262.52	-279	181	-805	-603	-159	-101	112	-481	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.129	1	Yes	0.856	0.086	0.95	Yes	1.00	**4.45**
		$U_9 - U_{10}$	217.11	-960.69	-41	369	-1365	-119	-196	-42	143	-132	0.159	0.187	0.35	Yes	0.108	0.127	0.24	Yes	0.834	0.162	1	Yes	0.829	0.166	1.00	Yes	1.00	**4.52**
		$U_{10} - U_{11}$	731.61	-836.96	247	509	-980	-119	-202	-38	-221	-385	0.618	0.185	0.81	Yes	0.421	0.121	0.55	Yes	0.837	0.159	1	Yes	0.832	0.138	0.97	Yes	1.00	**7.20**
		$U_{11} - U_{12}$	814.17	-----	-1322	1106	-143	222	-971	-829	-293	-261	0.688	0.305	1.00	Yes	0.462	0.203	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.32**
		$U_{12} - U_{13}$	1252.76	-----	421	58	70	-577	-466	7	-797	-519	0.846	0.149	1.00	Yes	0.603	0.103	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.78**
		$U_{13} - U_{14}$	1244.83	-----	-1187	3754	-339	1646	-259	115	-457	-25	0.612	0.379	1.00	Yes	0.433	0.248	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.43**
		$U_{14} - U_{15}$	1226.92	-----	1880	213	3644	-950	-692	-274	97	738	0.603	0.388	1.00	Yes	0.427	0.254	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.95**
		$U_{15} - U_{16}$	1310.12	-----	211	841	-273	-898	-390	105	731	1237	0.792	0.207	1.00	Yes	0.563	0.142	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.14**
		$U_{16} - U_{17}$	1105.64	-----	654	530	676	-886	79	-5	686	497	0.815	0.183	1.00	Yes	0.542	0.121	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.87**
		$U_{17} - U_{18}$	782.93	-----	437	463	634	-1085	-78	-39	203	185	0.786	0.214	1.00	Yes	0.523	0.142	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.47**
		$U_{18} - U_{19}$	804.52	-528.74	598	514	377	-871	-218	-70	269	-183	0.808	0.187	1.00	Yes	0.530	0.119	0.65	Yes	0.628	0.173	0.81	Yes	0.624	0.148	0.78	Yes	1.00	**9.11**
		$U_{19} - U_{20}$	537.84	-753.87	424	323	-272	-709	-158	65	383	245	0.504	0.165	0.67	Yes	0.334	0.108	0.45	Yes	0.837	0.154	1	Yes	0.832	0.114	0.95	Yes	1.00	**6.84**
		$U_{20} - U_{21}$	494.02	-950.54	255	286	-198	-717	5	39	270	-248	0.383	0.133	0.52	Yes	0.268	0.087	0.36	Yes	0.874	0.125	1	Yes	0.868	0.104	0.98	Yes	1.00	**6.92**
		$U_{21} - U_{22}$	269.35	-827.33	98	108	-513	-1346	-34	47	75	-96	0.209	0.205	0.42	Yes	0.148	0.137	0.29	Yes	0.761	0.230	1	Yes	0.755	0.195	0.95	Yes	1.00	**4.57**
		$U_{22} - U_{23}$	252.99	-824.03	112	95	-1348	-518	-130	-34	90	-131	0.196	0.210	0.41	Yes	0.139	0.139	0.28	Yes	0.758	0.235	1	Yes	0.752	0.195	0.95	Yes	1.00	**4.56**
		$U_{23} - U_{24}$	379.16	-903.42	246	166	-469	-597	-212	-2	24	-555	0.294	0.147	0.45	Yes	0.206	0.098	0.31	Yes	0.831	0.161	1	Yes	0.825	0.086	0.92	Yes	1.00	**5.78**
		$U_{24} - U_{25}$	429.31	-755.35	232	318	-878	-210	-207	44	88	-146	0.403	0.168	0.58	Yes	0.267	0.111	0.38	Yes	0.839	0.154	1	Yes	0.833	0.141	0.98	Yes	1.00	**5.85**
		$U_{25} - U_{26}$	857.36	-156.77	528	577	-527	-116	-282	170	-268	-198	0.861	0.139	1.00	Yes	0.565	0.089	0.66	Yes	0.186	0.126	0.32	Yes	0.185	0.098	0.29	Yes	1.00	**10.26**
		$U_{26} - U_{27}$	374.93	-419.22	-2927	1259	-1015	149	-526	-267	-137	-400	0.376	0.574	0.96	Yes	0.251	0.380	0.64	Yes	0.498	0.222	0.73	Yes	0.495	0.497	1.00	Yes	1.00	**18.25**
		$U_{27} - U_{28}$	1027.06	-----	-613	1403	-4	273	-576	-578	-243	-126	0.757	0.237	1.00	Yes	0.504	0.156	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.45**
		$U_{28} - U_{29}$	1382.59	-----	538	36	-715	-332	-162	579	-977	-680	0.836	0.164	1.00	Yes	0.595	0.113	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.75**
		$U_{29} - U_{30}$	1271.83	-----	-611	3669	-159	1505	-494	254	-256	187	0.625	0.374	1.00	Yes	0.443	0.245	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.39**
		$U_{30} - U_{31}$	1214.60	-----	2017	84	3499	-1363	-467	-179	581	1066	0.597	0.397	1.00	Yes	0.423	0.261	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.56**
		$U_{31} - U_{32}$	1187.35	-----	148	575	-416	-690	-118	173	874	1138	0.802	0.195	1.00	Yes	0.572	0.136	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.35**
		$U_{32} - U_{33}$	890.72	-----	576	342	790	-1198	162	45	638	271	0.752	0.247	1.00	Yes	0.505	0.165	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.03**
		$U_{33} - U_{34}$	760.98	-814.63	521	390	-190	-1057	22	41	527	302	0.643	0.213	0.86	Yes	0.437	0.139	0.58	Yes	0.814	0.178	1	Yes	0.810	0.149	0.96	Yes	1.00	**7.60**
		$U_{34} - U_{35}$	380.35	-980.87	465	76	-196	-1175	105	39	384	-13	0.279	0.185	0.47	Yes	0.189	0.125	0.32	Yes	0.851	0.143	1	Yes	0.846	0.143	0.99	Yes	1.00	**5.40**
		$U_{35} - U_{36}$	106.87	-1288.79	247	-163	-358	-882	58	50	310	-47	0.062	0.119	0.19	Yes	0.043	0.079	0.13	Yes	0.880	0.116	1	Yes	0.874	0.094	0.97	Yes	1.00	**5.25**
		$U_{36} - U_{37}$	-----	-1378.48	-73	7	-771	-1627	165	-23	455	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.205	1	Yes	0.785	0.145	0.93	Yes	1.00	**4.44**
		$U_{37} - U_{38}$	-----	-1373.19	118	-175	-1535	-896	21	40	242	61	-----	-----	-----	-----	-----	-----	-----	-----	0.787	0.207	1	Yes	0.782	0.137	0.92	Yes	1.00	**4.41**
		$U_{38} - U_{39}$	-----	-1604.19	125	-361	-424	-1698	88	-82	284	-442	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.164	1	Yes	0.824	0.141	0.97	Yes	1.00	**4.75**
		$U_{39} - U_{40}$	-----	-1523.44	-271	-453	-1857	-903	-114	-118	200	-291	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.211	1	Yes	0.782	0.154	0.94	Yes	1.00	**4.47**
		$U_{40} - U_{41}$	-----	-1476.11	-345	-410	-940	-857	-90	-97	-199	-416	-----	-----	-----	-----	-----	-----	-----	-----	0.846	0.150	1	Yes	0.841	0.084	0.93	Yes	1.00	**5.12**
		$U_{41} - U_{42}$	-----	-1096.84	-1056	-7	-994	-235	-344	-1228	-93	-217	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.210	1	Yes	0.778	0.108	0.89	Yes	1.00	**6.43**
		$U_{42} - U_{43}$	-----	-857.83	-829	-38	-699	-69	-392	-422	-51	-254	-----	-----	-----	-----	-----	-----	-----	-----	0.834	0.166	1	Yes	0.828	0.126	0.96	Yes	1.00	**6.03**
		$U_{43} - U_{44}$	-----	-595.08	-1375	658	58	-289	-728	-332	43	34	-----	-----	-----	-----	-----	-----	-----	-----	0.707	0.288	1	Yes	0.703	0.233	0.94	Yes	1.00	**14.05**
	Structure 3	$U_0 - U_1$	-----	-664.63	158	-138	35	-1217	63	122	423	-146	-----	-----	-----	-----	-----	-----	-----	-----	0.755	0.211	0.97	Yes	0.748	0.245	1.00	Yes	1.00	**12.89**
		$U_1 - U_2$	-----	-703.71	-68	-105	-13	-617	249	510	316	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.191	1	Yes	0.792	0.124	0.92	Yes	1.00	**5.20**
		$U_2 - U_3$	-----	-1055.72	-81	-106	21	-668	516	0	787	-29	-----	-----	-----	-----	-----	-----	-----	-----	0.836	0.162	1	Yes	0.826	0.109	0.94	Yes	1.00	**6.08**
		$U_3 - U_4$	-----	-1425.89	-141	-194	-498	-1081	124	-246	483	326	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.166	1	Yes	0.817	0.119	0.94	Yes	1.00	**6.12**
		$U_4 - U_5$	-----	-1514.25	-354	-16	-628	-627	31	-233	138	-542	-----	-----	-----	-----	-----	-----	-----	-----	0.877	0.113	1	Yes	0.868	0.069	0.94	Yes	1.00	**6.20**
		$U_5 - U_6$	-----	-1337.84	-156	-234	-563	-1613	-45	-203	-9	-235	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.219	1	Yes	0.767	0.178	0.95	Yes	1.00	**4.33**
		$U_6 - U_7$	-----	-1388.35	-307	-81	-1419	-480	-94	-236	7	-317	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.193	1	Yes	0.796	0.157	0.96	Yes	1.00	**5.04**
		$U_7 - U_8$	-----	-1256.32	-138	-15	-507	-420	-137	-131	-1	-663	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.142	1	Yes	0.839	0.070	0.91	Yes	1.00	**5.29**
		$U_8 - U_9$	-----	-899.20	-463	200	-833	-1	-59	-248	83	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.144	1	Yes	0.844	0.138	0.99	Yes	1.00	**4.76**
		$U_9 - U_{10}$	-----	-341.06	-2477	1786	-184	74	-422	-1084	-169	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.439	0.499	0.94	Yes	0.435	0.555	1.00	Yes	1.00	**29.94**
		$U_{10} - U_{11}$	712.45	-----	-124	447	4	53	-732	-362	-226	-113	0.773	0.218	1.00	Yes	0.523	0.146	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.97**
		$U_{11} - U_{12}$	834.37	-----	-569	1569	-178	612	-424	-16	-295	9	0.684	0.315	1.00	Yes	0.468	0.215	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.55**
		$U_{12} - U_{13}$	1012.79	-----	1093	86	1650	-655	-444	-56	-73	300	0.702	0.295	1.00	Yes	0.489	0.201	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.37**
		$U_{13} - U_{14}$	877.00	-----	240	398	-28	-308	-174	308	272	497	0.839	0.153	1.00	Yes	0.586	0.105	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.74**
		$U_{14} - U_{15}$	712.15	-263.94	463	292	324	-387	32	185	390	-35	0.816	0.176	1.00	Yes	0.551	0.116	0.67	Yes	0.359	0.176	0.54	Yes	0.356	0.110	0.47	Yes	1.00	**7.49**
		$U_{15} - U_{16}$	383.00	-572.24	309	167	-123	-959	-21	158	108	115	0.439	0.255	0.70	Yes	0.301	0.175	0.48	Yes	0.779	0.213	1	Yes	0.772	0.228	1.00	Yes	1.00	**5.58**
		$U_{16} - U_{17}$	455.55	-624.00	395	136	-569	-419	8	108	175	-102	0.522	0.165	0.69	Yes	0.358	0.113	0.48	Yes	0.849	0.142	1	Yes	0.841	0.135	0.98	Yes	1.00	**6.85**
		$U_{17} - U_{18}$	217.34	-618.41	338	-107	-211	-619	-81	230	95	-350	0.249	0.206	0.46	Yes	0.168	0.135	0.31	Yes	0.841	0.149	1	Yes	0.834	0.147	0.99	Yes	1.00	**5.55**
		$U_{18} - U_{19}$	42.23	-558.76	48	-11	-740	-175	428	75	202	4	0.048	0.248	0.30	Yes	0.033	0.170	0.21	Yes	0.760	0.236	1	Yes	0.753	0.176	0.93	Yes	1.00	**4.99**
		$U_{19} - U_{20}$	129.14	-586.84	-852	457	367	-694	58	-207	53	114	0.148	0.237	0.39	Yes	0.102	0.163	0.27	Yes	0.798	0.169	0.97	Yes	0.791	0.203	1.00	Yes	1.00	**16.77**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 Vehicle 1.300 Pedestrian
LL Factor: 1.300 1.300

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Lower Chord	Structure 1	L_0 - L_1	127.14	-123.33	-375	289	1055	-1455	50	185	-457	-1679	0.195	0.797	1.00	Yes	0.115	0.478	0.60	Yes	0.224	0.560	0.79	Yes	0.222	0.437	0.66	Yes	1.00	**33.63**
		L_1 - L_2	444.93	-92.38	37	88	-38	-685	53	1	-495	227	0.681	0.312	1.00	Yes	0.415	0.205	0.63	Yes	0.168	0.176	0.35	Yes	0.166	0.206	0.38	Yes	1.00	**7.73**
		L_2 - L_3	712.20	-248.29	46	206	-448	-655	-3	-21	122	127	0.819	0.179	1.00	Yes	0.474	0.107	0.59	Yes	0.339	0.220	0.56	Yes	0.336	0.158	0.50	Yes	1.00	**9.29**
		L_3 - L_4	654.87	-293.34	83	327	-310	-937	-18	-2	-121	88	0.753	0.246	1.00	Yes	0.447	0.159	0.61	Yes	0.401	0.224	0.63	Yes	0.397	0.226	0.63	Yes	1.00	**6.68**
		L_4 - L_5	-----	-363.83	-1651	1217	-64	271	77	22	40	-91	-----	-----	-----	-----	-----	-----	-----	-----	0.559	0.189	0.75	Yes	0.554	0.437	1.00	Yes	1.00	**13.10**
		L_5 - L_6	-----	-724.18	-73	706	-290	197	10	88	203	155	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.147	1	Yes	0.836	0.156	1.00	Yes	1.00	**5.48**
		L_6 - L_7	-----	-1119.78	-613	319	148	-94	-110	-46	349	41	-----	-----	-----	-----	-----	-----	-----	-----	0.912	0.055	0.97	Yes	0.901	0.096	1.00	Yes	1.00	**7.87**
		L_7 - L_8	-----	-1247.85	-97	1513	-33	584	81	132	41	72	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.198	1	Yes	0.790	0.200	1.00	Yes	1.00	**4.10**
		L_8 - L_9	-----	-1266.93	951	7	1424	-176	93	48	236	-69	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.183	1	Yes	0.802	0.189	1.00	Yes	1.00	**7.51**
		L_9 - L_{10}	-----	-1073.59	78	215	646	-864	97	70	-97	-182	-----	-----	-----	-----	-----	-----	-----	-----	0.874	0.054	0.93	Yes	0.864	0.136	1.00	Yes	1.00	**13.82**
		L_{10} - L_{11}	39.74	-548.78	485	3	258	-616	90	18	9	-184	0.051	0.195	0.25	Yes	0.030	0.118	0.15	Yes	0.844	0.090	0.94	Yes	0.836	0.163	1.00	Yes	1.00	**8.80**
		L_{11} - L_{12}	588.54	-196.83	376	-162	263	-750	-26	9	-185	174	0.762	0.231	1.00	Yes	0.457	0.151	0.61	Yes	0.303	0.100	0.41	Yes	0.300	0.198	0.50	Yes	1.00	**6.99**
		L_{12} - L_{13}	1127.42	-----	109	-78	-297	-467	-16	-35	7	-179	0.890	0.104	1.00	Yes	0.569	0.062	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.30**
		L_{13} - L_{14}	1271.04	-----	231	-391	227	-1613	-105	61	-250	119	0.748	0.243	1.00	Yes	0.484	0.149	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.63**
		L_{14} - L_{15}	1611.97	-----	-344	-81	-1556	-500	-68	-51	-314	113	0.788	0.210	1.00	Yes	0.512	0.127	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.34**
		L_{15} - L_{16}	1700.28	-----	-185	-390	-956	-1165	-79	10	319	227	0.831	0.163	1.00	Yes	0.533	0.096	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.79**
		L_{16} - L_{17}	1257.72	-----	-1225	74	-922	5	-260	-77	-31	-34	0.795	0.203	1.00	Yes	0.516	0.125	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.48**
		L_{17} - L_{18}	934.65	-----	-706	143	-170	-68	-227	-313	-50	1	0.814	0.176	1.00	Yes	0.521	0.106	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.70**
		L_{18} - L_{19}	437.71	-----	-913	441	-229	164	-225	206	-1	-27	0.670	0.321	1.00	Yes	0.453	0.201	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.93**
		L_{19} - L_{20}	84.50	-278.71	-1636	949	-93	18	589	132	-36	-8	0.129	0.613	0.75	Yes	0.079	0.409	0.49	Yes	0.506	0.346	0.86	Yes	0.502	0.491	1.00	Yes	1.00	**21.25**
	Structure 2	L_0 - L_1	68.62	-21.88	-228	232	1059	-2597	8	28	-359	-1248	0.104	0.891	1.00	Yes	0.063	0.445	0.51	Yes	0.039	0.636	0.68	Yes	0.039	0.626	0.67	Yes	1.00	**25.59**
		L_1 - L_2	569.19	-----	132	-129	419	-1160	82	84	-412	240	0.691	0.304	1.00	Yes	0.411	0.194	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.94**
		L_2 - L_3	1064.76	-----	-28	-93	-81	-881	115	174	251	-80	0.839	0.154	1.00	Yes	0.550	0.092	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.31**
		L_3 - L_4	1415.98	-----	43	-256	-54	-1295	50	128	-164	183	0.832	0.166	1.00	Yes	0.560	0.103	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.68**
		L_4 - L_5	1838.97	-----	-206	-159	-1042	-1289	15	-13	235	-82	0.857	0.138	1.00	Yes	0.568	0.082	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.97**
		L_5 - L_6	1933.99	-----	-10	-247	-791	-1602	-92	56	-354	177	0.830	0.164	1.00	Yes	0.557	0.101	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.51**
		L_6 - L_7	1931.90	-----	-271	28	-1492	-1878	56	-39	93	-238	0.818	0.180	1.00	Yes	0.543	0.105	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.93**
		L_7 - L_8	1367.15	-89.10	-143	307	-1443	-455	-60	80	-662	-185	0.784	0.214	1.00	Yes	0.515	0.128	0.65	Yes	0.061	0.190	0.26	Yes	0.060	0.159	0.22	Yes	1.00	**5.31**
		L_8 - L_9	1109.61	-325.92	-100	554	-1023	-45	72	-70	194	818	0.776	0.215	1.00	Yes	0.523	0.137	0.66	Yes	0.270	0.148	0.42	Yes	0.268	0.138	0.41	Yes	1.00	**5.79**
		L_9 - L_{10}	786.33	-742.09	-39	741	-1325	166	29	112	373	-140	0.702	0.257	0.96	Yes	0.409	0.159	0.57	Yes	0.785	0.149	0.94	Yes	0.779	0.212	1.00	Yes	1.00	**7.45**
		L_{10} - L_{11}	-----	-764.49	54	578	-262	384	131	-46	35	-59	-----	-----	-----	-----	-----	-----	-----	-----	0.904	0.064	0.97	Yes	0.898	0.101	1.00	Yes	1.00	**5.42**
		L_{11} - L_{12}	-----	-1005.00	-685	1286	-208	503	-26	19	-14	65	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.102	0.94	Yes	0.824	0.175	1.00	Yes	1.00	**4.89**
		L_{12} - L_{13}	-----	-1421.41	-436	-125	-509	-967	-286	-365	250	327	-----	-----	-----	-----	-----	-----	-----	-----	0.857	0.139	1	Yes	0.850	0.096	0.95	Yes	1.00	**5.22**
		L_{13} - L_{14}	-----	-1467.26	-1080	2967	-488	1434	-60	-71	-78	-111	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.176	0.93	Yes	0.738	0.259	1.00	Yes	1.00	**3.52**
		L_{14} - L_{15}	-----	-1477.50	1394	-536	2933	-1153	-128	-109	-121	-76	-----	-----	-----	-----	-----	-----	-----	-----	0.750	0.171	0.93	Yes	0.743	0.256	1.00	Yes	1.00	**3.54**
		L_{15} - L_{16}	-----	-1440.09	-1208	762	-902	-1032	-13	410	-345	-357	-----	-----	-----	-----	-----	-----	-----	-----	0.869	0.125	1	Yes	0.861	0.120	0.99	Yes	1.00	**15.24**
		L_{16} - L_{17}	-----	-1171.04	1152	257	1154	-695	340	151	-235	-385	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.127	0.99	Yes	0.853	0.142	1.00	Yes	1.00	**9.82**
		L_{17} - L_{18}	-----	-823.62	401	275	786	-512	40	-29	11	0	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.077	0.95	Yes	0.865	0.126	1.00	Yes	1.00	**5.37**
		L_{18} - L_{19}	-----	-658.12	593	154	397	-441	-46	-69	-15	-47	-----	-----	-----	-----	-----	-----	-----	-----	0.883	0.095	0.98	Yes	0.877	0.114	1.00	Yes	1.00	**5.36**
		L_{19} - L_{20}	416.82	-647.60	478	281	201	-668	-71	-21	-170	142	0.472	0.155	0.63	Yes	0.279	0.098	0.38	Yes	0.868	0.110	0.98	Yes	0.863	0.129	1.00	Yes	1.00	**6.59**
		L_{20} - L_{21}	1058.50	-812.46	592	257	-536	-893	14	-65	9	-204	0.844	0.152	1.00	Yes	0.554	0.091	0.65	Yes	0.768	0.126	0.9	Yes	0.762	0.130	0.90	Yes	1.00	**9.49**
		L_{21} - L_{22}	876.54	-474.04	295	114	-252	-1918	-48	-26	-180	142	0.699	0.299	1.00	Yes	0.467	0.187	0.66	Yes	0.448	0.228	0.68	Yes	0.445	0.280	0.73	Yes	1.00	**6.46**
		L_{22} - L_{23}	935.74	-475.99	132	274	-1519	-562	63	-62	-264	115	0.746	0.250	1.00	Yes	0.499	0.157	0.66	Yes	0.450	0.216	0.67	Yes	0.447	0.222	0.67	Yes	1.00	**6.72**
		L_{23} - L_{24}	998.19	-701.32	212	461	-1092	-612	4	48	382	278	0.796	0.200	1.00	Yes	0.522	0.121	0.65	Yes	0.663	0.192	0.86	Yes	0.658	0.159	0.82	Yes	1.00	**8.91**
		L_{24} - L_{25}	263.83	-679.73	240	484	-472	64	142	-141	-15	8	0.299	0.115	0.42	Yes	0.177	0.073	0.25	Yes	0.912	0.071	0.99	Yes	0.906	0.093	1.00	Yes	1.00	**7.58**
		L_{25} - L_{26}	-----	-665.11	157	566	-79	234	11	72	-14	52	-----	-----	-----	-----	-----	-----	-----	-----	0.892	0.087	0.98	Yes	0.886	0.109	1.00	Yes	1.00	**6.32**
		L_{26} - L_{27}	-----	-814.91	-701	852	-106	345	85	-22	62	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.072	0.94	Yes	0.856	0.136	1.00	Yes	1.00	**6.19**
		L_{27} - L_{28}	-----	-1124.86	-350	1404	-98	535	65	145	29	109	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.134	0.97	Yes	0.819	0.173	1.00	Yes	1.00	**4.89**
		L_{28} - L_{29}	-----	-1467.97	-151	-253	-241	-1014	21	-120	170	7	-----	-----	-----	-----	-----	-----	-----	-----	0.885	0.109	1	Yes	0.878	0.101	0.98	Yes	1.00	**4.95**
		L_{29} - L_{30}	-----	-1473.15	-1093	2941	-484	1307	-24	-18	21	13	-----	-----	-----	-----	-----	-----	-----	-----	0.748	0.167	0.92	Yes	0.741	0.257	1.00	Yes	1.00	**3.64**
		L_{30} - L_{31}	-----	-1454.47	1336	-472	3009	-1130	-6	-18	19	52	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.173	0.92	Yes	0.732	0.263	1.00	Yes	1.00	**3.74**
		L_{31} - L_{32}	-----	-1471.25	-573	422	-532	-1125	-158	-68	70	8	-----	-----	-----	-----	-----	-----	-----	-----	0.888	0.111	1	Yes	0.880	0.112	1.00	Yes	1.00	**9.15**
		L_{32} - L_{33}	-----	-1004.50	885	41	1284	-590	21	-28	43	12	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.112	0.95	Yes	0.824	0.175	1.00	Yes	1.00	**4.85**
		L_{33} - L_{34}	111.46	-740.65	518	143	468	-734	-23	1	-22	193	0.111	0.154	0.27	Yes	0.065	0.097	0.17	Yes	0.876	0.105	0.99	Yes	0.870	0.128	1.00	Yes	1.00	**5.16**
		L_{34} - L_{35}	803.07	-782.48	765	30	24	-1075	-14	-77	182	-143	0.717	0.194	0.92	Yes	0.417	0.121	0.54	Yes	0.827	0.105	0.94	Yes	0.822	0.172	1.00	Yes	1.00	**7.51**
		L_{35} - L_{36}	1164.96	-461.73	576	2	95	-991	-78	0	-441	246	0.815	0.175	1.00	Yes	0.549	0.110	0.66	Yes	0.383	0.089	0.48	Yes	0.380	0.134	0.52	Yes	1.00	**6.59**
		L_{36} - L_{37}	1409.13	-157.28	410	-6	-437	-1501	13	-18	305	34	0.808	0.191	1.00	Yes	0.531	0.113	0.65	Yes	0.107	0.172	0.28	Yes	0.106	0.166	0.28	Yes	1.00	**5.76**
		L_{37} - L_{38}	1881.82	-----	130	-362	-1457	-1662	-62	38	-802	-121	0.796	0.196	1.00	Yes	0.529	0.117	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.38**
		L_{38} - L_{39}	1848.05	-----	-290	-53	-1689	-1235	-5	-67	336	841	0.793	0.202	1.00	Yes	0.532	0.126	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.37**
		L_{39} - L_{40}	1790.86	-128.07	57	-305	-1641	-1213	-96	-47	102	-11	0.835	0.162	1.00	Yes	0.553	0.095	0.65	Yes	0.071	0.287	0.36	Yes	0.070	0.155	0.23	Yes	1.00	**15.84**
		L_{40} - L_{41}	1401.96	-----	-510	50	-1409	-383	-16	-39	-118	-14	0.824	0.174	1.00	Yes	0.555	0.107	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**14.33**
		L_{41} - L_{42}	982.02	-----	-934	255	-109	-146	-854	-577	109	237	0.774	0.226	1.00	Yes	0.508	0.139	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.10**
		L_{42} - L_{43}	587.27	-----	-1213	407	-200	129	-208	192	79	27	0.713	0.281	1.00	Yes	0.424	0.181	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.80**
		L_{43} - L_{44}	-----	-166.11	-3714	1336	244	-186	1349	394	-89	-26	-----	-----	-----	-----	-----	-----	-----	-----	0.239	0.655	0.9	Yes	0.237	0.756	1.00	Yes	1.00	**37.19**
	Structure 3	L_0 - L_1	23.49	-152.36	-92	53	1417	-2355	3	13	-266	-1206	0.036	0.957	1.00	Yes	0.022	0.635	0.66	Yes	0.277	0.571	0.85	Yes	0.274	0.707	0.99	Yes	1.00	**33.55**
		L_1 - L_2	450.40	-----	147	-165	385	-802	36	60	-289	297	0.689	0.302	1.00	Yes	0.466	0.190	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.99**
		L_2 - L_3	959.22	-----	-26	-135	-12	-627	86	128	305	-44	0.835	0.160	1.00	Yes	0.535	0.097	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.51**
		L_3 - L_4	1294.42	-----	41	-295	18	-1111	30	121	-176	197	0.818	0.181	1.00	Yes	0.531	0.111	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.65**
		L_4 - L_5	1754.37	-----	-270	-126	-1065	-788	28	14	87	-135	0.857	0.138	1.00	Yes	0.550	0.080	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.41**
		L_5 - L_6	1526.14	-----	-35	-314	-268	-1899	-62	137	-199	230	0.746	0.245	1.00	Yes	0.485	0.148	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.29**
		L_6 - L_7	1322.13	-----	-1397	362	-1413	-4	-8	-2	-220	174	0.778	0.213	1.00	Yes	0.504	0.130	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.16**
		L_7 - L_8	1088.99	-----	-80	92	-549	-342	-1	97	337	329	0.859	0.137	1.00	Yes	0.550	0.083	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.88**
		L_8 - L_9	390.33	-----	-1672	1102	-262	198	-281	15	17	-68	0.505	0.492	1.00	Yes	0.303	0.324	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**19.54**
		L_9 - L_{10}	-----	-538.61	-446	677	-164	134	-52	-13	-27	50	-----	-----	-----	-----	-----	-----	-----	-----	0.828	0.060	0.89	Yes	0.821	0.179	1.00	Yes	1.00	**7.48**
		L_{10} - L_{11}	-----	-1060.54	-835	688	64	-127	72	-145	334	-163	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.052	0.92	Yes	0.859	0.132	1.00	Yes	1.00	**13.92**
		L_{11} - L_{12}	-----	-1255.97	-121	1393	-55	534	-133	-196	-84	-98	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.186	1	Yes	0.795	0.184	0.98	Yes	1.00	**4.33**
		L_{12} - L_{13}	-----	-1240.06	845	-12	1427	-102	-173	-156	-232	-191	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.197	1	Yes	0.785	0.189	0.98	Yes	1.00	**4.04**
		L_{13} - L_{14}	-----	-1130.23	24	281	258	-531	-89	-46	-158	-83	-----	-----	-----	-----	-----	-----	-----	-----	0.920	0.041	0.97	Yes	0.910	0.083	1.00	Yes	1.00	**8.78**
		L_{14} - L_{15}	-----	-746.25	572	147	210	-217	-32	-88	-33	-143	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.127	1	Yes	0.861	0.127	0.99	Yes	1.00	**5.47**
		L_{15} - L_{16}	127.24	-520.52	457	144	395	-766	-4	-72	-91	151	0.165	0.230	0.40	Yes	0.099	0.151	0.25	Yes	0.800	0.174	0.98	Yes	0.793	0.203	1.00	Yes	1.00	**5.02**
		L_{16} - L_{17}	702.85	-276.08	383	40	-635	-497	57	-81	-223	43	0.809	0.189	1.00	Yes	0.480	0.122	0.61	Yes	0.377	0.205	0.59	Yes	0.374	0.153	0.53	Yes	1.00	**7.03**
		L_{17} - L_{18}	695.19	-127.68	119	-44	-619	-711	42	102	178	113	0.800	0.200	1.00	Yes	0.463	0.120	0.59	Yes	0.174	0.219	0.4	Yes	0.173	0.172	0.35	Yes	1.00	**7.08**
		L_{18} - L_{19}	452.91	-----	-845	65	-439	-25	-120	239	22	179	0.693	0.305	1.00	Yes	0.423	0.204	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.42**
		L_{19} - L_{20}	-----	-222.09	-1968	1672	305	-354	1334	363	-235	-64	-----	-----	-----	-----	-----	-----	-----	-----	0.403	0.564	0.97	Yes	0.400	0.591	1.00	Yes	1.00	**43.95**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 Vehicle 1.300 Pedestrian
LL Factor: 1.300 1.300

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression								Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
					Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-311.69	-151	201	-1	21	-723	-232	-72	-23	-----	-----	-----	-----	-----	-----	-----	-----	0.696	0.301	1	Yes	0.660	0.256	0.92	Yes	1.00	**3.90**
		$U_1 - L_1$	73.61	-332.79	-216	224	56	-52	-117	-49	106	41	0.132	0.320	0.46	Yes	0.073	0.176	0.25	Yes	0.727	0.113	0.85	Yes	0.704	0.286	1.00	Yes	1.00	**7.22**
		$U_2 - L_2$	136.97	-308.90	-213	264	121	-136	62	101	96	9	0.246	0.367	0.62	Yes	0.135	0.202	0.34	Yes	0.675	0.135	0.82	Yes	0.654	0.337	1.00	Yes	1.00	**9.67**
		$U_3 - L_3$	218.87	-268.30	-309	332	184	-216	11	254	-236	-221	0.394	0.498	0.90	Yes	0.217	0.274	0.50	Yes	0.588	0.172	0.76	Yes	0.568	0.424	1.00	Yes	1.00	**13.21**
		$U_4 - L_4$	-----	-372.41	54	-55	158	-161	-161	-75	-98	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.097	0.92	Yes	0.788	0.206	1.00	Yes	1.00	**4.84**
		$U_5 - L_5$	-----	-422.74	59	-66	247	-260	-151	-46	-96	-31	-----	-----	-----	-----	-----	-----	-----	-----	0.765	0.106	0.88	Yes	0.729	0.264	1.00	Yes	1.00	**3.87**
		$U_6 - L_6$	-----	-467.82	72	-72	195	-211	-135	0	1139	421	-----	-----	-----	-----	-----	-----	-----	-----	0.708	0.292	1	Yes	0.671	0.185	0.86	Yes	1.00	**3.33**
		$U_7 - L_7$	-----	-435.63	119	-132	302	-328	-131	46	-1	99	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.125	0.86	Yes	0.672	0.323	1.00	Yes	1.00	**3.06**
		$U_8 - L_8$	-----	-1197.11	-289	342	352	-432	-1100	-381	628	148	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.129	1	Yes	0.830	0.080	0.92	Yes	1.00	**7.26**
		$U_9 - L_9$	-----	-648.30	-406	480	-176	203	-107	-350	-245	-171	-----	-----	-----	-----	-----	-----	-----	-----	0.773	0.156	0.93	Yes	0.732	0.267	1.00	Yes	1.00	**4.30**
		$U_{10} - L_{10}$	-----	-803.65	-360	383	-137	102	-296	-221	-214	-167	-----	-----	-----	-----	-----	-----	-----	-----	0.832	0.113	0.95	Yes	0.793	0.198	1.00	Yes	1.00	**7.08**
		$U_{11} - L_{11}$	-----	-667.34	-371	462	-118	161	-157	-34	-140	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.800	0.091	0.9	Yes	0.777	0.214	1.00	Yes	1.00	**5.45**
		$U_{12} - L_{12}$	-----	-532.48	-297	305	-103	102	-100	62	-125	5	-----	-----	-----	-----	-----	-----	-----	-----	0.769	0.089	0.86	Yes	0.731	0.261	1.00	Yes	1.00	**4.96**
		$U_{13} - L_{13}$	-----	-367.71	-237	256	-64	78	-81	107	-106	45	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.101	0.85	Yes	0.704	0.292	1.00	Yes	1.00	**3.81**
		$U_{14} - L_{14}$	-----	-248.15	-124	144	-34	40	-1598	-122	-1339	-225	-----	-----	-----	-----	-----	-----	-----	-----	0.554	0.442	1	Yes	0.525	0.184	0.71	Yes	1.00	**5.48**
		$U_{15} - L_{15}$	54.43	-296.33	-45	44	276	-285	-156	-89	-95	-227	0.098	0.429	0.53	Yes	0.054	0.236	0.30	Yes	0.664	0.180	0.85	Yes	0.627	0.364	1.00	Yes	1.00	**7.76**
		$U_{16} - L_{16}$	1.40	-323.73	10	-14	234	-246	-166	-111	-95	-219	0.003	0.377	0.38	Yes	0.001	0.208	0.21	Yes	0.730	0.165	0.9	Yes	0.685	0.314	1.00	Yes	1.00	**6.45**
		$U_{17} - L_{17}$	-----	-439.45	43	-55	219	-237	-170	-100	42	-87	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.132	0.96	Yes	0.758	0.241	1.00	Yes	1.00	**4.56**
		$U_{18} - L_{18}$	-----	-536.99	116	-121	425	-443	-159	-64	61	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.786	0.094	0.89	Yes	0.747	0.251	1.00	Yes	1.00	**5.36**
		$U_{19} - L_{19}$	-----	-649.91	130	-143	482	-508	-69	3	361	147	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.148	0.96	Yes	0.756	0.236	1.00	Yes	1.00	**6.03**
		$U_{20} - L_{20}$	-----	-599.58	164	-209	405	-504	18	2	547	72	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.201	1	Yes	0.698	0.234	0.94	Yes	1.00	**4.51**
	Structure 2	$U_0 - L_0$	-----	-647.46	-401	520	-94	156	-788	-134	-274	-46	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.216	1	Yes	0.694	0.220	0.92	Yes	1.00	**4.05**
		$U_1 - L_1$	-----	-703.05	-468	506	-86	92	-864	-279	59	-71	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.194	1	Yes	0.753	0.215	0.97	Yes	1.00	**5.51**
		$U_2 - L_2$	-----	-589.03	-443	470	-49	58	-693	-192	132	52	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.174	0.97	Yes	0.751	0.240	1.00	Yes	1.00	**5.64**
		$U_3 - L_3$	-----	-485.76	-214	236	-24	30	-506	-165	41	146	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.166	1	Yes	0.762	0.215	0.98	Yes	1.00	**5.23**
		$U_4 - L_4$	29.58	-340.90	-204	212	17	-9	40	238	-42	101	0.053	0.340	0.40	Yes	0.029	0.187	0.22	Yes	0.773	0.127	0.9	Yes	0.721	0.271	1.00	Yes	1.00	**6.01**
		$U_5 - L_5$	111.85	-337.68	-191	219	80	-77	5	246	-97	0	0.201	0.351	0.56	Yes	0.111	0.193	0.31	Yes	0.763	0.128	0.9	Yes	0.715	0.280	1.00	Yes	1.00	**8.26**
		$U_6 - L_6$	245.08	-290.19	-289	299	155	-172	56	340	-130	-78	0.441	0.480	0.93	Yes	0.242	0.264	0.51	Yes	0.653	0.169	0.83	Yes	0.614	0.382	1.00	Yes	1.00	**14.92**
		$U_7 - L_7$	-----	-229.90	51	-58	318	-371	-128	-34	-1243	-339	-----	-----	-----	-----	-----	-----	-----	-----	0.519	0.479	1	Yes	0.486	0.475	0.97	Yes	1.00	**21.22**
		$U_8 - L_8$	-----	-458.84	113	-125	371	-383	-166	-113	-642	-478	-----	-----	-----	-----	-----	-----	-----	-----	0.665	0.224	0.89	Yes	0.661	0.335	1.00	Yes	1.00	**5.63**
		$U_9 - L_9$	-----	-666.26	202	-207	456	-510	-220	-118	1855	312	-----	-----	-----	-----	-----	-----	-----	-----	0.741	0.252	1	Yes	0.714	0.217	0.94	Yes	1.00	**5.45**
		$U_{10} - L_{10}$	-----	-785.38	184	-194	565	-589	-162	-77	-44	-97	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.097	0.88	Yes	0.734	0.260	1.00	Yes	1.00	**6.30**
		$U_{11} - L_{11}$	-----	-845.25	196	-196	435	-467	-122	-13	-81	34	-----	-----	-----	-----	-----	-----	-----	-----	0.850	0.078	0.93	Yes	0.790	0.206	1.00	Yes	1.00	**4.45**
		$U_{12} - L_{12}$	-----	-895.02	176	-153	518	-495	-58	59	50	120	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.087	0.95	Yes	0.776	0.222	1.00	Yes	1.00	**4.69**
		$U_{13} - L_{13}$	-----	-733.12	265	-264	597	-598	-55	58	-22	99	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.111	0.93	Yes	0.707	0.286	1.00	Yes	1.00	**4.21**
		$U_{14} - L_{14}$	-----	-1196.37	-391	359	621	-594	-826	-289	696	389	-----	-----	-----	-----	-----	-----	-----	-----	0.875	0.115	1	Yes	0.793	0.110	0.91	Yes	1.00	**7.87**
		$U_{15} - L_{15}$	-----	-702.80	-655	656	-136	151	-183	-150	-33	15	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.156	0.94	Yes	0.678	0.314	1.00	Yes	1.00	**5.66**
		$U_{16} - L_{16}$	-----	-737.29	-491	451	-83	49	-292	-207	-134	-53	-----	-----	-----	-----	-----	-----	-----	-----	0.851	0.116	0.97	Yes	0.790	0.208	1.00	Yes	1.00	**4.84**
		$U_{17} - L_{17}$	-----	-642.05	-541	532	-138	125	-160	-94	-85	-42	-----	-----	-----	-----	-----	-----	-----	-----	0.792	0.092	0.89	Yes	0.747	0.251	1.00	Yes	1.00	**4.16**
		$U_{18} - L_{18}$	-----	-612.77	-379	420	-130	116	-188	-60	-77	-39	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.088	0.91	Yes	0.781	0.215	1.00	Yes	1.00	**3.92**
		$U_{19} - L_{19}$	-----	-481.09	-283	287	-85	77	105	-162	-90	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.724	0.093	0.82	Yes	0.718	0.276	1.00	Yes	1.00	**5.76**
		$U_{20} - L_{20}$	-----	-384.87	-208	222	-55	54	-149	76	-124	-96	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.103	0.9	Yes	0.737	0.253	1.00	Yes	1.00	**5.58**
		$U_{21} - L_{21}$	-----	-317.00	-246	257	-27	37	-132	97	-441	-44	-----	-----	-----	-----	-----	-----	-----	-----	0.716	0.202	0.92	Yes	0.671	0.328	1.00	Yes	1.00	**5.88**
		$U_{22} - L_{22}$	-----	-225.32	-124	146	173	-197	243	96	-1471	-476	-----	-----	-----	-----	-----	-----	-----	-----	0.507	0.485	1	Yes	0.477	0.252	0.73	Yes	1.00	**21.62**
		$U_{23} - L_{23}$	-----	-306.60	24	-25	262	-268	-91	33	-97	-149	-----	-----	-----	-----	-----	-----	-----	-----	0.693	0.145	0.84	Yes	0.649	0.342	1.00	Yes	1.00	**6.23**
		$U_{24} - L_{24}$	-----	-379.35	44	-46	225	-238	-132	24	-84	-133	-----	-----	-----	-----	-----	-----	-----	-----	0.778	0.111	0.89	Yes	0.727	0.271	1.00	Yes	1.00	**5.95**
		$U_{25} - L_{25}$	-----	-471.82	81	-78	307	-304	-122	32	80	-27	-----	-----	-----	-----	-----	-----	-----	-----	0.710	0.088	0.8	Yes	0.705	0.295	1.00	Yes	1.00	**5.13**
		$U_{26} - L_{26}$	-----	-596.93	135	-134	401	-450	-154	21	-65	12	-----	-----	-----	-----	-----	-----	-----	-----	0.795	0.085	0.89	Yes	0.761	0.230	1.00	Yes	1.00	**3.89**
		$U_{27} - L_{27}$	-----	-628.97	157	-156	567	-567	-148	42	-99	54	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.082	0.86	Yes	0.732	0.263	1.00	Yes	1.00	**4.06**
		$U_{28} - L_{28}$	-----	-657.08	136	-118	441	-434	-117	38	1360	262	-----	-----	-----	-----	-----	-----	-----	-----	0.759	0.238	1	Yes	0.704	0.187	0.90	Yes	1.00	**3.67**
		$U_{29} - L_{29}$	-----	-697.25	226	-229	675	-673	-98	39	111	117	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.125	0.91	Yes	0.672	0.323	1.00	Yes	1.00	**4.85**
		$U_{30} - L_{30}$	-----	-1190.89	-459	404	426	-431	-810	-377	560	204	-----	-----	-----	-----	-----	-----	-----	-----	0.871	0.128	1	Yes	0.790	0.081	0.88	Yes	1.00	**6.99**
		$U_{31} - L_{31}$	-----	-745.03	-586	587	-187	189	-194	-141	-112	-43	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.149	0.98	Yes	0.718	0.281	1.00	Yes	1.00	**4.75**
		$U_{32} - L_{32}$	-----	-902.51	-483	446	-123	89	-291	-194	-182	-107	-----	-----	-----	-----	-----	-----	-----	-----	0.866	0.132	1	Yes	0.782	0.207	0.99	Yes	1.00	**5.08**
		$U_{33} - L_{33}$	-----	-858.61	-404	430	-169	146	-156	-81	-138	-77	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.080	0.95	Yes	0.803	0.190	1.00	Yes	1.00	**4.84**
		$U_{34} - L_{34}$	-----	-804.04	-500	550	-156	162	-729	-250	-102	19	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.166	0.97	Yes	0.752	0.243	1.00	Yes	1.00	**8.02**
		$U_{35} - L_{35}$	-----	-710.66	-514	557	-180	186	48	293	-105	35	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.084	0.88	Yes	0.762	0.236	1.00	Yes	1.00	**7.42**
		$U_{36} - L_{36}$	-----	-473.23	-343	360	-103	116	-52	193	-103	47	-----	-----	-----	-----	-----	-----	-----	-----	0.686	0.101	0.79	Yes	0.682	0.314	1.00	Yes	1.00	**5.78**
		$U_{37} - L_{37}$	-----	-237.94	-109	133	-57	68	-1764	73	-121	-8	-----	-----	-----	-----	-----	-----	-----	-----	0.538	0.453	1	Yes	0.503	0.169	0.68	Yes	1.00	**5.23**
		$U_{38} - L_{38}$	220.71	-227.88	-154	169	258	-259	-117	-28	-941	-611	0.397	0.603	1.00	Yes	0.218	0.332	0.55	Yes	0.513	0.404	0.92	Yes	0.482	0.330	0.82	Yes	1.00	**11.78**
		$U_{39} - L_{39}$	127.22	-302.51	-97	96	197	-219	-150	-48	-642	-421	0.229	0.465	0.70	Yes	0.126	0.256	0.39	Yes	0.683	0.311	1	Yes	0.640	0.279	0.92	Yes	1.00	**7.68**
		$U_{40} - L_{40}$	34.17	-330.99	-21	12	233	-233	-129	-59	-57	-129	0.061	0.335	0.40	Yes	0.034	0.184	0.22	Yes	0.751	0.127	0.88	Yes	0.700	0.298	1.00	Yes	1.00	**5.17**
		$U_{41} - L_{41}$	-----	-487.85	27	-34	236	-252	-102	-38	-92	-112	-----	-----	-----	-----	-----	-----	-----	-----	0.830	0.101	0.94	Yes	0.765	0.230	1.00	Yes	1.00	**4.90**
		$U_{42} - L_{42}$	-----	-582.74	71	-81	491	-502	-83	-55	58	26	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.080	0.87	Yes	0.743	0.257	1.00	Yes	1.00	**5.53**
		$U_{43} - L_{43}$	-----	-705.74	107	-124	520	-553	-58	-38	459	242	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.145	0.96	Yes	0.756	0.235	1.00	Yes	1.00	**5.89**
		$U_{44} - L_{44}$	-----	-662.92	179	-218	442	-567	-60	-10	664	113	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.201	1	Yes	0.710	0.241	0.96	Yes	1.00	**4.38**
	Structure 3	$U_0 - L_0$	-----	-578.22	-366	459	-98	161	-731	-96	-244	-32	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.229	1	Yes	0.673	0.213	0.89	Yes	1.00	**4.52**
		$U_1 - L_1$	-----	-634.16	-419	455	-104	111	-785	-209	8	-74	-----	-----	-----	-----	-----	-----	-----	-----	0.791	0.205	1	Yes	0.738	0.211	0.95	Yes	1.00	**6.10**
		$U_2 - L_2$	-----	-544.12	-389	419	-81	86	-719	-181	93	37	-----	-----	-----	-----	-----	-----	-----	-----	0.797	0.188	0.99	Yes	0.757	0.237	1.00	Yes	1.00	**6.31**
		$U_3 - L_3$	-----	-449.88	-193	215	-28	39	-44	173	6	124	-----	-----	-----	-----	-----	-----	-----	-----	0.841	0.110	0.96	Yes	0.776	0.218	1.00	Yes	1.00	**5.55**
		$U_4 - L_4$	0.64	-331.68	-216	230	-9	12	-155	189	-74	99	0.001	0.348	0.35	Yes	0.001	0.191	0.20	Yes	0.747	0.102	0.85	Yes	0.702	0.293	1.00	Yes	1.00	**6.53**
		$U_5 - L_5$	49.07	-301.85	-262	275	35	-32	-162	171	-115	23	0.088	0.402	0.49	Yes	0.049	0.221	0.27	Yes	0.677	0.128	0.81	Yes	0.639	0.352	1.00	Yes	1.00	**7.68**
		$U_6 - L_6$	-----	-264.37	34	-37	130	-143	-149	-43	-1385	-231	-----	-----	-----	-----	-----	-----	-----	-----	0.590	0.404	1	Yes	0.559	0.183	0.75	Yes	1.00	**5.86**
		$U_7 - L_7$	-----	-359.32	61	-73	256	-272	-163	-111	-187	-173	-----	-----	-----	-----	-----	-----	-----	-----	0.726	0.148	0.88	Yes	0.688	0.310	1.00	Yes	1.00	**3.98**
		$U_8 - L_8$	-----	-521.29	103	-100	321	-327	-196	-126	-218	-182	-----	-----	-----	-----	-----	-----	-----	-----	0.753	0.124	0.88	Yes	0.715	0.280	1.00	Yes	1.00	**5.08**
		$U_9 - L_9$	-----	-652.29	123	-164	412	-503	-154	-70	57	17	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.098	0.89	Yes	0.759	0.233	1.00	Yes	1.00	**5.10**
		$U_{10} - L_{10}$	-----	-801.96	136	-120	383	-393	46	161	134	178	-----	-----	-----	-----	-----	-----	-----	-----	0.831	0.073	0.91	Yes	0.791	0.204	1.00	Yes	1.00	**5.78**
		$U_{11} - L_{11}$	-----	-633.90	186	-216	427	-503	-39	68	-72	295	-----	-----	-----	-----	-----	-----	-----	-----	0.756	0.124	0.88	Yes	0.716	0.280	1.00	Yes	1.00	**3.91**
		$U_{12} - L_{12}$	-----	-1219.48	-262	269	360	-487	-899	-207	833	319	-----	-----	-----	-----	-----	-----	-----	-----	0.880	0.110	1	Yes	0.845	0.091	0.94	Yes	1.00	**7.53**
		$U_{13} - L_{13}$	-----	-447.03	-285	309	-106	117	-162	-137	-140	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.147	0.9	Yes	0.690	0.304	1.00	Yes	1.00	**3.75**
		$U_{14} - L_{14}$	-----	-552.63	-235	234	-63	59	-275	-212	-163	-132	-----	-----	-----	-----	-----	-----	-----	-----	0.837	0.129	0.97	Yes	0.793	0.206	1.00	Yes	1.00	**4.84**
		$U_{15} - L_{15}$	-----	-435.28	-233	243	-51	56	-199	-83	-141	-63	-----	-----	-----	-----	-----	-----	-----	-----	0.788	0.115	0.91	Yes	0.751	0.247	1.00	Yes	1.00	**4.08**
		$U_{16} - L_{16}$	-----	-247.07	-169	176	-52	52	-1535	-445	-162	-85	-----	-----	-----	-----	-----	-----	-----	-----	0.543	0.456	1	Yes	0.523	0.224	0.75	Yes	1.00	**4.90**
		$U_{17} - L_{17}$	215.09	-266.18	-205	234	324	-337	-117	88	-283	-320	0.387	0.523	0.91	Yes	0.213	0.288	0.51	Yes	0.583	0.203	0.79	Yes	0.563	0.430	1.00	Yes	1.00	**13.15**
		$U_{18} - L_{18}$	136.19	-298.92	-133	146	237	-281	-109	-41	-281	-182	0.245	0.440	0.69	Yes	0.135	0.242	0.38	Yes	0.653	0.175	0.83	Yes	0.632	0.359	1.00	Yes	1.00	**9.55**
		$U_{19} - L_{19}$	44.51	-320.81	-55	41	244	-246	-169	-94	147	52	0.080	0.363	0.45	Yes	0.044	0.200	0.25	Yes	0.701	0.133	0.84	Yes	0.679	0.314	1.00	Yes	1.00	**5.72**
		$U_{20} - L_{20}$	-----	-333.53	37	-37	162	-229	-224	-72	344	110	-----	-----	-----	-----	-----	-----	-----	-----	0.745	0.206	0.96	Yes	0.706	0.293	1.00	Yes	1.00	**3.74**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
Center Truss - Diagonals	Structure 1	$U_0 - L_1$			577.31	-112.74	-117	67	20	-18	-418	-199	-40	-3	0.757	0.241	1.00	Yes	0.457	0.133	0.60	Yes	0.193	0.178	0.38	Yes	0.174	0.136	0.32	Yes	1.00	**8.03**
		$U_1 - L_2$			429.12	-141.28	-100	26	29	-24	-320	-222	-117	-54	0.772	0.220	1.00	Yes	0.424	0.121	0.55	Yes	0.324	0.202	0.53	Yes	0.299	0.128	0.43	Yes	1.00	**8.48**
		$U_2 - L_3$			391.75	-142.34	-113	17	-13	-42	-383	-491	-460	-213	0.705	0.286	1.00	Yes	0.388	0.157	0.55	Yes	0.328	0.291	0.62	Yes	0.301	0.144	0.45	Yes	1.00	**11.23**
		$U_3 - L_4$			76.25	-298.45	58	-3	-97	-131	116	242	-500	-424	0.137	0.312	0.45	Yes	0.075	0.172	0.25	Yes	0.682	0.314	1	Yes	0.632	0.168	0.80	Yes	1.00	**10.67**
		$U_4 - L_4$			539.40	-----	-6	88	-118	-18	358	292	-361	24	0.791	0.204	1.00	Yes	0.435	0.112	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.37**
		$U_6 - L_3$			682.94	-----	-150	273	-35	76	188	79	189	96	0.807	0.190	1.00	Yes	0.444	0.105	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.80**
		$U_7 - L_5$			646.54	-----	-280	260	-78	85	370	-24	297	170	0.764	0.227	1.00	Yes	0.420	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.26**
		$U_8 - L_7$			629.07	-----	-62	346	-8	116	310	215	243	175	0.744	0.253	1.00	Yes	0.409	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.60**
		$U_9 - L_9$			906.53	-----	-39	425	-12	142	-671	259	143	135	0.725	0.275	1.00	Yes	0.449	0.155	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.44**
		$U_9 - L_{10}$			1012.77	-----	-289	317	-97	85	329	291	89	104	0.810	0.183	1.00	Yes	0.502	0.103	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.90**
		$U_{10} - L_{11}$			1028.07	-----	-202	259	-74	71	0	-56	-53	-69	0.868	0.129	1.00	Yes	0.538	0.072	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.02**
		$U_{11} - L_{12}$			847.39	-----	-243	160	-79	29	-263	-280	-192	-163	0.838	0.155	1.00	Yes	0.461	0.085	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.22**
		$U_{12} - L_{13}$			619.73	-----	-191	166	-72	51	-356	-329	-229	-195	0.755	0.237	1.00	Yes	0.475	0.134	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.71**
		$U_{13} - L_{14}$			398.30	-----	-92	34	-69	0	-240	-545	-434	-535	0.716	0.276	1.00	Yes	0.394	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.08**
		$U_{15} - L_{14}$			-----	-186.73	2	-26	-59	-194	-75	-176	-1172	4	-----	-----	-----	-----	-----	-----	-----	-----	0.437	0.557	1	Yes	0.395	0.248	0.65	Yes	1.00	**18.60**
		$U_{16} - L_{15}$			402.74	-38.80	-134	92	-5	-12	-354	-352	-33	-75	0.724	0.274	1.00	Yes	0.398	0.151	0.55	Yes	0.092	0.189	0.29	Yes	0.082	0.172	0.26	Yes	1.00	**6.99**
		$U_{17} - L_{16}$			523.38	-----	-154	105	-21	3	-223	-304	-21	-88	0.768	0.227	1.00	Yes	0.422	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.93**
		$U_{18} - L_{17}$			641.31	-----	-342	263	-93	56	-258	-227	4	-43	0.758	0.240	1.00	Yes	0.417	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.73**
		$U_{19} - L_{18}$			696.98	-----	-351	258	-100	64	-368	-141	38	0	0.755	0.240	1.00	Yes	0.415	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.93**
		$U_{20} - L_{19}$			680.41	-----	-363	311	-126	104	-457	-80	-1	28	0.737	0.261	1.00	Yes	0.405	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.69**
	Structure 2	$U_0 - L_1$			755.20	-----	-381	363	-46	56	-494	-161	-126	61	0.747	0.250	1.00	Yes	0.411	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.50**
		$U_1 - L_2$			738.62	-----	-371	286	-66	41	-630	-256	60	20	0.731	0.266	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.56**
		$U_2 - L_3$			608.67	-----	-336	255	-38	27	-469	-182	-63	-186	0.720	0.275	1.00	Yes	0.396	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.54**
		$U_3 - L_4$			554.65	-----	-185	133	-9	-3	-395	-426	-238	-223	0.739	0.258	1.00	Yes	0.407	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.10**
		$U_4 - L_5$			391.45	-77.88	-132	87	18	-25	-428	-398	-142	-88	0.704	0.293	1.00	Yes	0.387	0.161	0.55	Yes	0.192	0.226	0.42	Yes	0.165	0.169	0.34	Yes	1.00	**6.79**
		$U_5 - L_6$			360.74	-145.25	-128	62	24	-66	-605	-458	-648	-320	0.649	0.351	1.00	Yes	0.357	0.193	0.55	Yes	0.343	0.318	0.67	Yes	0.307	0.163	0.48	Yes	1.00	**9.56**
		$U_6 - L_7$			-----	-337.60	10	-31	41	-91	-214	-171	-542	-363	-----	-----	-----	-----	-----	-----	-----	-----	0.723	0.276	1	Yes	0.647	0.104	0.76	Yes	1.00	**7.47**
		$U_8 - L_7$			537.50	-----	-167	143	-191	44	73	-193	-659	45	0.685	0.306	1.00	Yes	0.431	0.175	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.59**
		$U_8 - L_8$			695.73	-----	-336	237	-125	89	-285	-434	17	-69	0.754	0.243	1.00	Yes	0.414	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.55**
		$U_{10} - L_9$			770.39	-----	-321	197	-115	96	-34	-557	46	-19	0.762	0.232	1.00	Yes	0.419	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.86**
		$U_{11} - L_{10}$			899.67	-----	-376	305	-132	123	-44	-86	145	35	0.820	0.179	1.00	Yes	0.451	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.66**
		$U_{12} - L_{11}$			887.81	-----	-351	354	-141	150	257	163	215	115	0.809	0.185	1.00	Yes	0.445	0.102	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.10**
		$U_{13} - L_{12}$			751.08	-----	-427	389	-180	174	347	202	351	182	0.743	0.251	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.67**
		$U_{14} - L_{13}$			726.71	-----	-216	451	-29	193	383	-187	471	163	0.719	0.280	1.00	Yes	0.395	0.154	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.55**
		$U_{14} - L_{15}$			610.04	-----	-144	409	56	76	249	165	30	-20	0.721	0.276	1.00	Yes	0.397	0.152	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.95**
		$U_{15} - L_{16}$			632.40	-----	-379	353	-67	72	195	173	8	34	0.748	0.250	1.00	Yes	0.411	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.60**
		$U_{16} - L_{17}$			723.42	-----	-323	381	-53	105	98	77	-6	14	0.784	0.211	1.00	Yes	0.431	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.39**
		$U_{17} - L_{18}$			691.35	-----	-310	306	-53	104	-1	-5	-27	6	0.817	0.180	1.00	Yes	0.450	0.099	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.29**
		$U_{18} - L_{19}$			566.32	-----	-268	270	-72	90	-968	-67	-74	-59	0.670	0.328	1.00	Yes	0.368	0.181	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.47**
		$U_{19} - L_{20}$			579.63	-----	-212	183	-43	52	-344	-307	-116	-68	0.739	0.260	1.00	Yes	0.406	0.147	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.86**
		$U_{20} - L_{21}$			412.45	-----	-118	104	-39	22	-315	-258	-342	-211	0.742	0.249	1.00	Yes	0.408	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.33**
		$U_{21} - L_{22}$			318.36	-179.05	-120	53	-6	-68	-377	-389	-912	-618	0.573	0.418	1.00	Yes	0.315	0.230	0.55	Yes	0.423	0.406	0.83	Yes	0.379	0.154	0.54	Yes	1.00	**14.90**
		$U_{22} - L_{22}$			348.44	-----	-112	60	-114	-55	136	-299	-771	-52	0.627	0.368	1.00	Yes	0.345	0.203	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**13.19**
		$U_{24} - L_{23}$			431.92	-----	-124	105	-22	21	-170	-206	46	-16	0.777	0.218	1.00	Yes	0.427	0.120	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.01**
		$U_{25} - L_{24}$			595.23	-----	-218	183	-38	45	-113	-215	103	21	0.759	0.239	1.00	Yes	0.417	0.134	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.22**
		$U_{26} - L_{25}$			677.82	-----	-298	270	-72	85	-19	-97	137	63	0.801	0.194	1.00	Yes	0.441	0.106	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.14**
		$U_{27} - L_{26}$			665.95	-----	-295	288	-90	105	231	102	185	82	0.787	0.209	1.00	Yes	0.433	0.115	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.93**
		$U_{28} - L_{27}$			703.86	-----	-318	372	-78	125	272	178	262	179	0.762	0.235	1.00	Yes	0.419	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.04**
		$U_{29} - L_{28}$			616.69	-----	-362	332	-116	114	334	-83	303	143	0.729	0.265	1.00	Yes	0.401	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.61**
		$U_{30} - L_{29}$			596.85	-----	-157	380	8	134	264	152	402	111	0.706	0.288	1.00	Yes	0.388	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.61**
		$U_{30} - L_{31}$			736.22	-----	-198	494	19	129	280	166	124	34	0.728	0.271	1.00	Yes	0.401	0.149	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.76**
		$U_{31} - L_{32}$			771.43	-----	-450	404	-122	124	180	145	53	61	0.763	0.235	1.00	Yes	0.420	0.130	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.52**
		$U_{32} - L_{33}$			913.68	-----	-358	363	-116	129	27	32	-50	-42	0.832	0.161	1.00	Yes	0.458	0.088	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.79**
		$U_{33} - L_{34}$			745.45	-----	-321	316	-113	107	-1282	-317	-158	-128	0.679	0.312	1.00	Yes	0.373	0.171	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.02**
		$U_{34} - L_{35}$			820.63	-----	-271	241	-101	90	-368	256	-193	-171	0.812	0.181	1.00	Yes	0.447	0.100	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.91**
		$U_{35} - L_{36}$			677.21	-----	-333	235	-117	88	-546	-441	-245	-186	0.733	0.260	1.00	Yes	0.403	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.90**
		$U_{36} - L_{37}$			589.25	-----	-191	158	-59	55	-313	-343	-215	-206	0.751	0.241	1.00	Yes	0.473	0.136	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.56**
		$U_{38} - L_{37}$			-----	-266.05	16	-34	-18	-135	-52	-135	-876	28	-----	-----	-----	-----	-----	-----	-----	-----	0.575	0.418	1	Yes	0.510	0.154	0.67	Yes	1.00	**12.04**
		$U_{39} - L_{38}$			387.33	-224.47	-125	63	69	-65	-255	-476	77	7	0.697	0.298	1.00	Yes	0.383	0.164	0.55	Yes	0.535	0.230	0.77	Yes	0.475	0.160	0.64	Yes	1.00	**9.20**
		$U_{40} - L_{39}$			403.43	-117.68	-134	91	29	-35	-195	-348	39	0	0.726	0.272	1.00	Yes	0.399	0.150	0.55	Yes	0.282	0.184	0.47	Yes	0.249	0.171	0.43	Yes	1.00	**7.07**
		$U_{41} - L_{40}$			584.57	-----	-190	140	-13	-5	-170	-187	27	-5	0.779	0.212	1.00	Yes	0.429	0.117	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.39**
		$U_{42} - L_{41}$			652.07	-----	-347	270	-51	30	-123	-151	-5	2	0.771	0.224	1.00	Yes	0.424	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.51**
		$U_{43} - L_{42}$			773.62	-----	-389	310	-71	45	-324	-87	-18	-44	0.765	0.229	1.00	Yes	0.421	0.126	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.05**
		$U_{44} - L_{43}$			768.74	-----	-375	367	-124	105	-402	-19	34	-10	0.761	0.234	1.00	Yes	0.418	0.129	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.79**
	Structure 3	$U_0 - L_1$			657.18	-----	-371	310	-64	67	-570	-184	-137	43	0.712	0.283	1.00	Yes	0.391	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.91**
		$U_1 - L_2$			662.43	-----	-331	234	-85	52	-687	-274	35	10	0.717	0.282	1.00	Yes	0.395	0.155	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.14**
		$U_2 - L_3$			631.52	-----	-336	253	-66	38	-280	-339	-75	-172	0.747	0.252	1.00	Yes	0.411	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.95**
		$U_3 - L_4$			506.15	-----	-151	104	-15	3	-417	-397	-217	-204	0.742	0.250	1.00	Yes	0.408	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.03**
		$U_4 - L_5$			380.50	-26.29	-126	91	-6	-8	-507	-400	-194	-132	0.684	0.308	1.00	Yes	0.376	0.169	0.55	Yes	0.062	0.225	0.29	Yes	0.056	0.161	0.22	Yes	1.00	**6.56**
		$U_5 - L_6$			-----	-75.43	0	-24	-97	-202	-240	-198	-1569	-1764	-----	-----	-----	-----	-----	-----	-----	-----	0.177	0.820	1	Yes	0.160	0.258	0.42	Yes	1.00	**21.15**
		$U_7 - L_8$			437.47	-----	-98	32	-68	-7	-81	-199	-295	-157	0.787	0.211	1.00	Yes	0.433	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.90**
		$U_8 - L_7$			637.63	-----	-195	170	-66	46	-163	-228	-29	-86	0.777	0.215	1.00	Yes	0.489	0.121	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.99**
		$U_8 - L_9$			863.56	-----	-254	170	-77	27	-13	-162	57	-39	0.854	0.142	1.00	Yes	0.470	0.078	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.36**
		$U_{10} - L_9$			1023.26	-----	-216	248	-74	68	151	43	137	57	0.864	0.134	1.00	Yes	0.535	0.075	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.38**
		$U_{11} - L_{10}$			996.27	-----	-294	310	-101	87	458	345	307	197	0.796	0.197	1.00	Yes	0.493	0.111	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.01**
		$U_{12} - L_{11}$			908.25	-----	-48	410	-16	142	-672	323	293	217	0.726	0.268	1.00	Yes	0.450	0.151	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.78**
		$U_{12} - L_{13}$			629.40	-----	-46	357	-4	107	258	195	114	92	0.744	0.250	1.00	Yes	0.409	0.138	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.64**
		$U_{13} - L_{14}$			661.85	-----	-283	290	-71	76	235	211	91	114	0.782	0.208	1.00	Yes	0.430	0.114	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.47**
		$U_{14} - L_{15}$			699.65	-----	-150	277	-31	69	45	5	37	15	0.827	0.166	1.00	Yes	0.455	0.091	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.23**
		$U_{15} - L_{16}$			499.12	-----	-3	85	-110	-17	211	251	-548	-643	0.732	0.261	1.00	Yes	0.403	0.144	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.74**
		$U_{17} - L_{16}$			-----	-318.94	56	-5	-36	-120	259	279	-502	-38	-----	-----	-----	-----	-----	-----	-----	-----	0.729	0.265	1	Yes	0.675	0.154	0.83	Yes	1.00	**9.93**
		$U_{18} - L_{17}$			262.29	-155.08	-76	13	-54	-45	143	-430	-1463	-18	0.472	0.521	1.00	Yes	0.259	0.287	0.55	Yes	0.357	0.439	0.8	Yes	0.328	0.098	0.43	Yes	1.00	**9.04**
		$U_{19} - L_{18}$			447.29	-136.41	-100	27	34	-28	-226	-198	-121	-91	0.804	0.193	1.00	Yes	0.442	0.106	0.55	Yes	0.313	0.152	0.47	Yes	0.289	0.128	0.42	Yes	1.00	**8.71**
		$U_{20} - L_{19}$			614.78	-69.54	-78	63	-20	-1	-377	-195	31	-18	0.807	0.186	1.00	Yes	0.487	0.103	0.59	Yes	0.119	0.141	0.26	Yes	0.107	0.091	0.20	Yes	1.00	**6.65**

Moment (End) Al Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Upper Chord	Structure 1	$U_0 - U_1$	74.18	-578.62	-231	185	870	-914	-167	227	675	-851	0.085	0.361	0.45	Yes	0.058	0.247	0.31	Yes	0.787	0.123	0.92	Yes	0.780	0.217	1.00	Yes	1.00	**10.82**
		$U_1 - U_2$	59.98	-510.43	-95	134	-322	-704	-165	159	-81	-508	0.069	0.253	0.33	Yes	0.047	0.173	0.23	Yes	0.695	0.299	1	Yes	0.688	0.167	0.86	Yes	1.00	**4.76**
		$U_2 - U_3$	285.11	-583.61	-48	410	-762	-199	-127	189	567	-615	0.327	0.285	0.62	Yes	0.220	0.188	0.41	Yes	0.794	0.206	1	Yes	0.787	0.181	0.97	Yes	1.00	**6.49**
		$U_3 - U_4$	704.39	-610.62	254	566	-530	-513	-256	5	-205	-254	0.807	0.178	0.99	Yes	0.554	0.122	0.68	Yes	0.831	0.164	1	Yes	0.823	0.135	0.96	Yes	1.00	**9.53**
		$U_4 - U_5$	546.49	-573.01	233	438	-637	-175	-117	-20	-376	-171	0.626	0.215	0.85	Yes	0.430	0.147	0.58	Yes	0.780	0.214	1	Yes	0.773	0.151	0.93	Yes	1.00	**7.18**
		$U_5 - U_6$	651.98	-----	-101	827	-100	185	-268	79	-303	-206	0.747	0.248	1.00	Yes	0.504	0.162	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.10**
		$U_6 - U_7$	919.82	-----	274	240	-9	44	0	420	55	-133	0.880	0.116	1.00	Yes	0.615	0.080	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.10**
		$U_7 - U_8$	999.75	-----	-221	1525	11	765	338	685	542	588	0.693	0.301	1.00	Yes	0.483	0.206	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.39**
		$U_8 - U_9$	801.92	-----	1138	-163	1535	-709	237	466	668	-147	0.657	0.339	1.00	Yes	0.449	0.231	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.03**
		$U_9 - U_{10}$	687.32	-240.99	248	288	292	-706	1	304	567	-539	0.746	0.249	1.00	Yes	0.505	0.167	0.68	Yes	0.310	0.126	0.44	Yes	0.308	0.158	0.47	Yes	1.00	**11.76**
		$U_{10} - U_{11}$	68.10	-636.59	248	-173	192	-793	45	110	227	-458	0.074	0.251	0.33	Yes	0.049	0.162	0.22	Yes	0.820	0.139	0.96	Yes	0.812	0.178	1.00	Yes	1.00	**5.34**
		$U_{11} - U_{12}$	-----	-915.57	139	-217	-16	-804	12	93	81	-231	-----	-----	-----	-----	-----	-----	-----	-----	0.867	0.126	1	Yes	0.859	0.133	1.00	Yes	1.00	**3.51**
		$U_{12} - U_{13}$	-----	-1269.39	-59	-271	-498	-599	75	4	733	-462	-----	-----	-----	-----	-----	-----	-----	-----	0.858	0.135	1	Yes	0.848	0.083	0.94	Yes	1.00	**4.22**
		$U_{13} - U_{14}$	-----	-1426.59	-198	-505	-541	-1256	-46	-14	-71	-55	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.168	1	Yes	0.818	0.139	0.96	Yes	1.00	**4.12**
		$U_{14} - U_{15}$	-----	-1431.13	-403	-291	-1061	-671	36	-276	-172	-276	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.165	1	Yes	0.820	0.117	0.94	Yes	1.00	**4.33**
		$U_{15} - U_{16}$	-----	-1482.50	-260	-429	-739	-774	-34	-248	-318	-278	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.138	1	Yes	0.850	0.085	0.94	Yes	1.00	**4.96**
		$U_{16} - U_{17}$	-----	-1408.36	-394	-198	-1005	-449	-80	-260	32	-221	-----	-----	-----	-----	-----	-----	-----	-----	0.816	0.178	1	Yes	0.807	0.111	0.92	Yes	1.00	**4.92**
		$U_{17} - U_{18}$	-----	-1117.86	-596	-1	-254	-61	-211	-82	-129	72	-----	-----	-----	-----	-----	-----	-----	-----	0.886	0.105	1	Yes	0.875	0.097	0.98	Yes	1.00	**4.55**
		$U_{18} - U_{19}$	-----	-714.39	-570	98	-374	-52	43	-164	578	-145	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.185	1	Yes	0.804	0.115	0.92	Yes	1.00	**4.21**
		$U_{19} - U_{20}$	-----	-593.73	-742	488	-1045	-320	5	-233	-150	-41	-----	-----	-----	-----	-----	-----	-----	-----	0.674	0.321	1	Yes	0.668	0.210	0.88	Yes	1.00	**11.96**
	Structure 2	$U_0 - U_1$	-----	-542.30	127	-210	2070	-1757	-29	55	1276	-509	-----	-----	-----	-----	-----	-----	-----	-----	0.644	0.242	0.89	Yes	0.640	0.351	1.00	Yes	1.00	**10.14**
		$U_1 - U_2$	-----	-852.85	-150	-280	-242	-922	-39	59	268	-352	-----	-----	-----	-----	-----	-----	-----	-----	0.829	0.165	1	Yes	0.823	0.140	0.97	Yes	1.00	**5.24**
		$U_2 - U_3$	-----	-1188.15	-146	-384	-108	-1123	-35	-34	135	-609	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.143	1	Yes	0.843	0.114	0.96	Yes	1.00	**4.58**
		$U_3 - U_4$	-----	-1431.27	-517	-500	-896	-1288	-122	-25	-9	-345	-----	-----	-----	-----	-----	-----	-----	-----	0.821	0.176	1	Yes	0.815	0.115	0.93	Yes	1.00	**3.91**
		$U_4 - U_5$	-----	-1555.04	-566	-511	-1104	-1383	-130	-72	10	-616	-----	-----	-----	-----	-----	-----	-----	-----	0.804	0.188	1	Yes	0.798	0.115	0.92	Yes	1.00	**3.80**
		$U_5 - U_6$	-----	-1613.79	-546	51	-1262	-838	-198	-38	-220	-440	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.157	1	Yes	0.829	0.105	0.94	Yes	1.00	**3.84**
		$U_6 - U_7$	-----	-1405.94	-298	-195	-1076	-1232	-170	-88	-188	-327	-----	-----	-----	-----	-----	-----	-----	-----	0.806	0.188	1	Yes	0.801	0.110	0.92	Yes	1.00	**3.52**
		$U_7 - U_8$	-----	-1400.84	-335	-182	-1384	-865	-79	-175	-261	-378	-----	-----	-----	-----	-----	-----	-----	-----	0.803	0.188	1	Yes	0.798	0.123	0.93	Yes	1.00	**3.52**
		$U_8 - U_9$	-----	-1229.74	-323	242	-1215	-312	-15	-193	-251	-309	-----	-----	-----	-----	-----	-----	-----	-----	0.840	0.153	1	Yes	0.834	0.129	0.97	Yes	1.00	**4.12**
		$U_9 - U_{10}$	559.15	-857.38	91	730	-987	-199	-115	-206	-304	-865	0.410	0.214	0.63	Yes	0.278	0.144	0.43	Yes	0.744	0.251	1	Yes	0.740	0.120	0.86	Yes	1.00	**7.13**
		$U_{10} - U_{11}$	900.08	-511.95	411	660	-878	-141	-214	-108	-684	-881	0.760	0.231	1.00	Yes	0.517	0.153	0.68	Yes	0.512	0.277	0.79	Yes	0.509	0.124	0.64	Yes	1.00	**7.57**
		$U_{11} - U_{12}$	925.26	-----	-447	994	-558	230	-389	-181	-611	-583	0.782	0.215	1.00	Yes	0.525	0.143	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.51**
		$U_{12} - U_{13}$	1226.44	-----	771	206	-477	-263	214	707	-482	-563	0.828	0.164	1.00	Yes	0.590	0.113	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.14**
		$U_{13} - U_{14}$	1296.08	-----	-566	3163	-216	1805	413	986	545	773	0.637	0.360	1.00	Yes	0.451	0.237	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.44**
		$U_{14} - U_{15}$	1261.09	-----	2502	-58	3337	-705	426	596	1029	232	0.620	0.379	1.00	Yes	0.439	0.249	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.03**
		$U_{15} - U_{16}$	1464.15	-----	49	423	65	-660	93	392	273	-309	0.885	0.108	1.00	Yes	0.630	0.073	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.04**
		$U_{16} - U_{17}$	1142.43	-----	595	300	729	-669	-82	322	286	-553	0.842	0.150	1.00	Yes	0.560	0.098	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.78**
		$U_{17} - U_{18}$	834.15	-125.76	434	344	363	-703	-105	285	150	-200	0.837	0.161	1.00	Yes	0.557	0.107	0.67	Yes	0.149	0.140	0.29	Yes	0.149	0.119	0.27	Yes	1.00	**6.04**
		$U_{18} - U_{19}$	777.32	-664.98	559	317	197	-747	-59	182	288	-597	0.780	0.214	1.00	Yes	0.512	0.137	0.65	Yes	0.790	0.139	0.93	Yes	0.785	0.127	0.92	Yes	1.00	**7.07**
		$U_{19} - U_{20}$	396.50	-724.34	275	174	-212	-929	-108	127	-51	-385	0.372	0.201	0.58	Yes	0.246	0.132	0.38	Yes	0.804	0.188	1	Yes	0.799	0.149	0.95	Yes	1.00	**4.59**
		$U_{20} - U_{21}$	351.10	-898.02	157	82	-767	-515	-69	49	583	-510	0.272	0.175	0.45	Yes	0.191	0.115	0.31	Yes	0.826	0.172	1	Yes	0.820	0.111	0.94	Yes	1.00	**4.99**
		$U_{21} - U_{22}$	452.93	-853.12	100	173	-608	-1004	-199	-39	-34	-55	0.351	0.167	0.52	Yes	0.249	0.112	0.37	Yes	0.784	0.213	1	Yes	0.779	0.145	0.93	Yes	1.00	**6.31**
		$U_{22} - U_{23}$	295.40	-870.38	88	18	-875	-644	-92	-139	-194	-186	0.229	0.148	0.38	Yes	0.162	0.099	0.27	Yes	0.800	0.195	1	Yes	0.794	0.127	0.93	Yes	1.00	**4.77**
		$U_{23} - U_{24}$	750.23	-855.47	309	338	-906	-616	20	-8	-698	556	0.582	0.207	0.79	Yes	0.407	0.137	0.55	Yes	0.786	0.207	1	Yes	0.781	0.131	0.92	Yes	1.00	**9.18**
		$U_{24} - U_{25}$	878.57	-678.07	470	499	-741	-267	30	-10	-354	-78	0.824	0.166	1.00	Yes	0.546	0.109	0.66	Yes	0.753	0.140	0.9	Yes	0.748	0.119	0.87	Yes	1.00	**9.94**
		$U_{25} - U_{26}$	-----	-483.27	-1554	2416	-1292	-726	-1417	-180	-465	-1383	-----	-----	-----	-----	-----	-----	-----	-----	0.574	0.417	1	Yes	0.571	0.410	0.99	Yes	1.00	**32.38**
		$U_{26} - U_{27}$	725.57	-----	-437	910	-518	97	-783	69	-358	-633	0.728	0.269	1.00	Yes	0.485	0.178	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.59**
		$U_{27} - U_{28}$	1106.54	-----	-321	1151	-226	360	-198	-37	-219	-301	0.815	0.176	1.00	Yes	0.543	0.116	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.46**
		$U_{28} - U_{29}$	1232.33	-----	1087	333	-636	-252	832	1452	-741	-813	0.745	0.246	1.00	Yes	0.530	0.169	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**14.21**
		$U_{29} - U_{30}$	1301.67	-----	-324	3097	-3	1707	529	1060	817	1038	0.640	0.359	1.00	Yes	0.453	0.236	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.36**
		$U_{30} - U_{31}$	1270.19	-----	2429	-287	3435	-948	608	553	773	94	0.625	0.371	1.00	Yes	0.442	0.243	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.95**
		$U_{31} - U_{32}$	1301.50	-----	95	407	-198	-571	198	396	477	-228	0.879	0.117	1.00	Yes	0.626	0.081	0.71	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.26**
		$U_{32} - U_{33}$	950.78	-219.79	635	200	439	-874	14	242	325	-601	0.803	0.197	1.00	Yes	0.539	0.131	0.68	Yes	0.220	0.106	0.33	Yes	0.218	0.123	0.35	Yes	1.00	**6.46**
		$U_{33} - U_{34}$	700.17	-846.60	524	216	-25	-1101	-18	229	286	-315	0.591	0.194	0.79	Yes	0.402	0.126	0.53	Yes	0.846	0.142	0.99	Yes	0.841	0.155	1.00	Yes	1.00	**6.70**
		$U_{34} - U_{35}$	126.91	-1001.60	408	-173	-83	-1067	46	47	246	-454	0.093	0.179	0.28	Yes	0.063	0.121	0.19	Yes	0.869	0.126	1	Yes	0.864	0.130	1.00	Yes	1.00	**4.23**
		$U_{35} - U_{36}$	-----	-1261.34	113	-452	-320	-1088	-15	92	77	-215	-----	-----	-----	-----	-----	-----	-----	-----	0.862	0.130	1	Yes	0.856	0.116	0.98	Yes	1.00	**3.47**
		$U_{36} - U_{37}$	-----	-1442.41	-284	-307	-878	-1289	-18	-118	11	-256	-----	-----	-----	-----	-----	-----	-----	-----	0.827	0.169	1	Yes	0.821	0.115	0.94	Yes	1.00	**3.21**
		$U_{37} - U_{38}$	-----	-1425.87	-197	-421	-1181	-1063	-94	-194	-171	-340	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.177	1	Yes	0.812	0.105	0.92	Yes	1.00	**3.13**
		$U_{38} - U_{39}$	-----	-1639.87	-125	-615	-939	-1212	14	-201	-228	-326	-----	-----	-----	-----	-----	-----	-----	-----	0.848	0.148	1	Yes	0.842	0.100	0.95	Yes	1.00	**3.69**
		$U_{39} - U_{40}$	-----	-1584.47	-617	-513	-1414	-928	26	-104	-286	-216	-----	-----	-----	-----	-----	-----	-----	-----	0.820	0.172	1	Yes	0.813	0.117	0.94	Yes	1.00	**3.87**
		$U_{40} - U_{41}$	-----	-1474.02	-491	-481	-1179	-825	108	-147	-110	-191	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.155	1	Yes	0.839	0.105	0.95	Yes	1.00	**4.30**
		$U_{41} - U_{42}$	-----	-1210.28	-1270	-31	-877	-141	-134	-127	-126	-104	-----	-----	-----	-----	-----	-----	-----	-----	0.864	0.130	1	Yes	0.859	0.129	0.99	Yes	1.00	**5.05**
		$U_{42} - U_{43}$	-----	-876.98	-893	69	-445	-58	-171	-233	459	-173	-----	-----	-----	-----	-----	-----	-----	-----	0.852	0.141	1	Yes	0.846	0.135	0.99	Yes	1.00	**5.97**
		$U_{43} - U_{44}$	-----	-638.16	-539	189	-861	-595	-24	-186	-12	174	-----	-----	-----	-----	-----	-----	-----	-----	0.758	0.234	1	Yes	0.754	0.146	0.90	Yes	1.00	**14.74**
	Structure 3	$U_0 - U_1$	-----	-543.19	356	-290	1923	-1490	73	78	1357	-863	-----	-----	-----	-----	-----	-----	-----	-----	0.617	0.291	0.91	Yes	0.611	0.387	1.00	Yes	1.00	**12.62**
		$U_1 - U_2$	-----	-733.55	-80	-222	-63	-702	-21	12	189	-339	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.164	1	Yes	0.825	0.141	0.97	Yes	1.00	**5.04**
		$U_2 - U_3$	-----	-1084.84	-53	-238	34	-596	-30	-48	142	-690	-----	-----	-----	-----	-----	-----	-----	-----	0.860	0.133	1	Yes	0.849	0.097	0.95	Yes	1.00	**4.76**
		$U_3 - U_4$	-----	-1374.10	-219	-371	-458	-1280	-102	-37	-215	-562	-----	-----	-----	-----	-----	-----	-----	-----	0.796	0.201	1	Yes	0.788	0.141	0.93	Yes	1.00	**4.45**
		$U_4 - U_5$	-----	-1441.35	-438	-142	-1085	-476	-89	-48	544	-642	-----	-----	-----	-----	-----	-----	-----	-----	0.835	0.164	1	Yes	0.826	0.120	0.95	Yes	1.00	**4.46**
		$U_5 - U_6$	-----	-1368.06	-260	-382	-646	-1175	-180	-152	-228	-171	-----	-----	-----	-----	-----	-----	-----	-----	0.793	0.198	1	Yes	0.784	0.130	0.92	Yes	1.00	**4.29**
		$U_6 - U_7$	-----	-1400.36	-493	-157	-1230	-513	-121	-300	-261	-365	-----	-----	-----	-----	-----	-----	-----	-----	0.811	0.182	1	Yes	0.803	0.136	0.94	Yes	1.00	**4.60**
		$U_7 - U_8$	-----	-1218.07	-254	-10	-701	-206	-119	-336	-368	-486	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.168	1	Yes	0.814	0.097	0.92	Yes	1.00	**3.82**
		$U_8 - U_9$	-----	-769.18	-65	323	-692	-9	-244	-187	-649	-769	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.264	1	Yes	0.722	0.115	0.84	Yes	1.00	**7.90**
		$U_9 - U_{10}$	-----	-428.29	-1824	1444	-965	54	-1140	-329	-1552	-1091	-----	-----	-----	-----	-----	-----	-----	-----	0.551	0.443	1	Yes	0.547	0.408	0.96	Yes	1.00	**29.85**
		$U_{10} - U_{11}$	712.07	-----	-21	480	30	109	-727	315	-30	-69	0.772	0.224	1.00	Yes	0.523	0.150	0.68	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**12.97**
		$U_{11} - U_{12}$	833.41	-----	-453	1470	-163	757	-32	511	389	549	0.683	0.314	1.00	Yes	0.467	0.214	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.56**
		$U_{12} - U_{13}$	962.72	-----	1178	-20	1854	-681	74	444	419	-199	0.667	0.326	1.00	Yes	0.465	0.222	0.69	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.64**
		$U_{13} - U_{14}$	856.40	-----	218	366	13	-464	-97	373	-36	-565	0.819	0.176	1.00	Yes	0.572	0.122	0.70	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.81**
		$U_{14} - U_{15}$	640.20	-278.25	457	222	26	-366	-54	261	904	-611	0.734	0.261	1.00	Yes	0.495	0.174	0.67	Yes	0.379	0.177	0.56	Yes	0.375	0.109	0.49	Yes	1.00	**7.02**
		$U_{15} - U_{16}$	449.77	-610.36	360	204	-214	-700	-70	256	14	66	0.516	0.210	0.73	Yes	0.354	0.144	0.50	Yes	0.831	0.161	1	Yes	0.823	0.166	0.99	Yes	1.00	**7.53**
		$U_{16} - U_{17}$	374.41	-643.40	379	66	-402	-527	195	-58	76	-140	0.429	0.158	0.59	Yes	0.295	0.108	0.41	Yes	0.875	0.091	0.97	Yes	0.868	0.125	1.00	Yes	1.00	**6.40**
		$U_{17} - U_{18}$	127.22	-641.91	256	-164	-408	-528	75	49	-48	-86	0.146	0.140	0.29	Yes	0.098	0.091	0.19	Yes	0.873	0.090	0.97	Yes	0.866	0.125	1.00	Yes	1.00	**5.32**
		$U_{18} - U_{19}$	85.04	-518.57	100	-56	-528	-229	248	-186	676	-488	0.097	0.240	0.34	Yes	0.067	0.164	0.24	Yes	0.706	0.286	1	Yes	0.699	0.126	0.83	Yes	1.00	**9.46**
		$U_{19} - U_{20}$	-----	-542.81	-231	36	-493	-802	-203	-141	-180	-52	-----	-----	-----	-----	-----	-----	-----	-----	0.739	0.255	1	Yes	0.732	0.191	0.93	Yes	1.00	**13.95**

Moment (End) Al Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
					Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
					(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Lower Chord	Structure 1	L_0 - L_1	1.300	1.300	26.56	-205.08	-286	154	642	-1080	63	229	-513	-1885	0.041	0.729	0.77	Yes	0.024	0.434	0.46	Yes	0.372	0.619	1	Yes	0.369	0.324	0.70	Yes	1.00	**22.86**
		L_1 - L_2			380.47	-51.50	-21	65	87	-801	398	-181	-822	469	0.582	0.417	1.00	Yes	0.355	0.272	0.63	Yes	0.094	0.239	0.34	Yes	0.093	0.240	0.34	Yes	1.00	**6.63**
		L_2 - L_3			637.63	-170.70	-10	109	-729	-507	-194	133	208	-510	0.734	0.258	1.00	Yes	0.424	0.153	0.58	Yes	0.233	0.231	0.47	Yes	0.231	0.176	0.41	Yes	1.00	**6.01**
		L_3 - L_4			661.86	-400.06	48	438	-534	-348	345	-279	-633	284	0.761	0.231	1.00	Yes	0.452	0.145	0.60	Yes	0.547	0.147	0.7	Yes	0.541	0.129	0.68	Yes	1.00	**7.19**
		L_4 - L_5			-----	-549.06	-119	607	-289	284	331	-40	-228	216	-----	-----	-----	-----	-----	-----	-----	-----	0.844	0.146	1	Yes	0.837	0.161	1.00	Yes	1.00	**5.19**
		L_5 - L_6			-----	-736.34	14	662	-40	316	70	-197	53	-237	-----	-----	-----	-----	-----	-----	-----	-----	0.859	0.133	1	Yes	0.850	0.146	1.00	Yes	1.00	**4.39**
		L_6 - L_7			-----	-1162.70	-239	253	230	-97	-3	407	-250	240	-----	-----	-----	-----	-----	-----	-----	-----	0.947	0.045	1	Yes	0.936	0.040	0.98	Yes	1.00	**5.85**
		L_7 - L_8			-----	-1259.30	-65	1183	-30	705	338	485	412	271	-----	-----	-----	-----	-----	-----	-----	-----	0.808	0.188	1	Yes	0.798	0.157	0.96	Yes	1.00	**2.98**
		L_8 - L_9			-----	-1249.20	994	-12	1216	-106	220	327	527	237	-----	-----	-----	-----	-----	-----	-----	-----	0.801	0.193	1	Yes	0.791	0.161	0.96	Yes	1.00	**4.61**
		L_9 - L_{10}			-----	-1083.86	104	156	717	-760	431	-293	-482	352	-----	-----	-----	-----	-----	-----	-----	-----	0.882	0.060	0.95	Yes	0.872	0.119	1.00	Yes	1.00	**11.02**
		L_{10} - L_{11}			-----	-530.44	423	-96	330	-711	-260	53	-150	-201	-----	-----	-----	-----	-----	-----	-----	-----	0.815	0.123	0.94	Yes	0.808	0.188	1.00	Yes	1.00	**6.82**
		L_{11} - L_{12}			516.25	-87.12	345	-238	327	-850	132	-87	-564	501	0.669	0.324	1.00	Yes	0.401	0.209	0.61	Yes	0.134	0.136	0.28	Yes	0.133	0.225	0.36	Yes	1.00	**5.74**
		L_{12} - L_{13}			1058.06	-----	45	-161	-425	-546	-157	122	-49	-503	0.835	0.156	1.00	Yes	0.534	0.095	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.34**
		L_{13} - L_{14}			1329.50	-----	182	-526	-108	-1241	147	17	-554	458	0.782	0.217	1.00	Yes	0.507	0.134	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.33**
		L_{14} - L_{15}			1598.61	-----	-568	-152	-1479	-405	-148	164	445	19	0.781	0.210	1.00	Yes	0.508	0.127	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.31**
		L_{15} - L_{16}			1732.75	-----	-303	-361	-927	-1040	118	-132	-1	337	0.847	0.149	1.00	Yes	0.543	0.088	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.91**
		L_{16} - L_{17}			1293.54	-----	-1079	119	-449	25	234	-141	-146	118	0.818	0.179	1.00	Yes	0.531	0.110	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.41**
		L_{17} - L_{18}			965.02	-----	-605	86	-374	-38	-247	-152	-103	-301	0.840	0.155	1.00	Yes	0.538	0.094	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.72**
		L_{18} - L_{19}			462.48	-----	-865	472	-255	186	6	-92	-154	153	0.708	0.292	1.00	Yes	0.479	0.182	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.23**
		L_{19} - L_{20}			395.11	-167.67	-738	421	-337	76	-122	-27	364	81	0.668	0.325	1.00	Yes	0.412	0.192	0.61	Yes	0.336	0.211	0.55	Yes	0.333	0.241	0.58	Yes	1.00	**10.44**
	Structure 2	L_0 - L_1			41.53	-432.07	-65	-121	514	-1719	34	119	-280	-971	0.050	0.509	0.56	Yes	0.030	0.322	0.36	Yes	0.621	0.375	1	Yes	0.617	0.350	0.97	Yes	1.00	**14.82**
		L_1 - L_2			450.43	-----	126	-232	596	-1477	169	-114	-889	727	0.547	0.446	1.00	Yes	0.325	0.282	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.29**
		L_2 - L_3			1048.84	-----	-78	-211	94	-979	-80	143	298	-127	0.827	0.173	1.00	Yes	0.542	0.104	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.10**
		L_3 - L_4			1354.48	-----	-27	-449	-7	-1390	190	-33	-400	488	0.796	0.202	1.00	Yes	0.536	0.126	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.16**
		L_4 - L_5			1810.36	-----	-416	-346	-1093	-1238	-96	157	507	83	0.844	0.151	1.00	Yes	0.559	0.091	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.04**
		L_5 - L_6			1889.85	-----	-203	-418	-727	-1751	197	-96	-141	472	0.811	0.185	1.00	Yes	0.544	0.114	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.46**
		L_6 - L_7			1899.70	-----	-525	-172	-1814	-1378	-160	221	362	-563	0.804	0.194	1.00	Yes	0.534	0.115	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.93**
		L_7 - L_8			1387.81	-56.75	-289	413	-1339	-408	226	-138	-597	334	0.796	0.197	1.00	Yes	0.523	0.118	0.65	Yes	0.039	0.146	0.19	Yes	0.038	0.148	0.19	Yes	1.00	**4.66**
		L_8 - L_9			1113.07	-1056.42	249	847	-951	157	-50	218	-35	46	0.779	0.149	0.93	Yes	0.524	0.093	0.62	Yes	0.876	0.069	0.95	Yes	0.869	0.128	1.00	Yes	1.00	**10.49**
		L_9 - L_{10}			457.59	-815.35	-108	865	-594	58	138	-175	-127	-125	0.408	0.159	0.57	Yes	0.238	0.099	0.34	Yes	0.862	0.072	0.94	Yes	0.856	0.138	1.00	Yes	1.00	**6.22**
		L_{10} - L_{11}			75.14	-722.68	-355	807	-562	433	398	54	-174	-222	0.075	0.195	0.27	Yes	0.044	0.121	0.17	Yes	0.855	0.105	0.96	Yes	0.849	0.141	1.00	Yes	1.00	**5.44**
		L_{11} - L_{12}			-----	-1007.55	-331	1271	-369	662	112	-279	-163	-576	-----	-----	-----	-----	-----	-----	-----	-----	0.833	0.152	0.99	Yes	0.826	0.173	1.00	Yes	1.00	**3.75**
		L_{12} - L_{13}			-----	-1485.22	-585	-169	169	-835	55	287	-352	37	-----	-----	-----	-----	-----	-----	-----	-----	0.903	0.088	1	Yes	0.896	0.084	0.99	Yes	1.00	**5.63**
		L_{13} - L_{14}			-----	-1511.52	-947	2725	-528	1553	188	373	509	466	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.192	0.96	Yes	0.761	0.238	1.00	Yes	1.00	**3.20**
		L_{14} - L_{15}			-----	-1510.55	1624	-530	2676	-893	356	304	378	221	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.178	0.95	Yes	0.760	0.234	1.00	Yes	1.00	**2.82**
		L_{15} - L_{16}			-----	-1511.16	-891	177	-380	-368	136	-264	-29	-40	-----	-----	-----	-----	-----	-----	-----	-----	0.911	0.082	1	Yes	0.904	0.089	1.00	Yes	1.00	**6.48**
		L_{16} - L_{17}			-----	-1142.96	1176	146	1343	-656	-344	-6	-101	-408	-----	-----	-----	-----	-----	-----	-----	-----	0.839	0.135	0.98	Yes	0.832	0.166	1.00	Yes	1.00	**8.60**
		L_{17} - L_{18}			-----	-833.10	477	391	740	-723	137	-295	-421	375	-----	-----	-----	-----	-----	-----	-----	-----	0.881	0.075	0.96	Yes	0.875	0.118	1.00	Yes	1.00	**6.69**
		L_{18} - L_{19}			-----	-648.53	683	124	345	-579	-239	38	271	-82	-----	-----	-----	-----	-----	-----	-----	-----	0.870	0.109	0.98	Yes	0.864	0.132	1.00	Yes	1.00	**6.03**
		L_{19} - L_{20}			531.05	-579.14	503	282	283	-1146	178	-217	-548	661	0.602	0.322	0.93	Yes	0.356	0.202	0.56	Yes	0.777	0.113	0.89	Yes	0.772	0.221	1.00	Yes	1.00	**7.29**
		L_{20} - L_{21}			967.29	-449.89	438	73	-808	-999	-189	42	7	-716	0.771	0.223	1.00	Yes	0.506	0.136	0.65	Yes	0.425	0.181	0.61	Yes	0.422	0.146	0.57	Yes	1.00	**6.98**
		L_{21} - L_{22}			943.24	-275.59	181	13	-590	-1297	143	-189	-483	447	0.752	0.241	1.00	Yes	0.503	0.152	0.66	Yes	0.260	0.192	0.46	Yes	0.259	0.189	0.45	Yes	1.00	**5.83**
		L_{22} - L_{23}			914.20	-340.89	71	188	-1496	-381	-75	191	448	-52	0.729	0.266	1.00	Yes	0.488	0.168	0.66	Yes	0.322	0.213	0.54	Yes	0.320	0.218	0.54	Yes	1.00	**6.61**
		L_{23} - L_{24}			1001.04	-906.00	347	725	-1008	-596	167	-180	-294	470	0.798	0.198	1.00	Yes	0.524	0.120	0.65	Yes	0.856	0.133	0.99	Yes	0.850	0.147	1.00	Yes	1.00	**13.58**
		L_{24} - L_{25}			651.50	-3.68	-821	695	-518	156	642	-307	-83	70	0.738	0.257	1.00	Yes	0.437	0.160	0.60	Yes	0.005	0.090	0.1	Yes	0.005	0.158	0.17	Yes	1.00	**9.02**
		L_{25} - L_{26}			226.13	-619.51	-374	897	-306	127	-44	1	-40	-112	0.256	0.190	0.45	Yes	0.148	0.114	0.27	Yes	0.831	0.108	0.94	Yes	0.826	0.173	1.00	Yes	1.00	**6.53**
		L_{26} - L_{27}			-----	-836.80	-210	736	195	388	124	65	-86	319	-----	-----	-----	-----	-----	-----	-----	-----	0.885	0.097	0.99	Yes	0.879	0.118	1.00	Yes	1.00	**4.80**
		L_{27} - L_{28}			-----	-1121.98	-212	1442	-219	747	167	-46	58	-203	-----	-----	-----	-----	-----	-----	-----	-----	0.824	0.141	0.97	Yes	0.817	0.178	1.00	Yes	1.00	**4.04**
		L_{28} - L_{29}			-----	-1439.27	-52	-351	105	-1378	58	283	-40	73	-----	-----	-----	-----	-----	-----	-----	-----	0.868	0.131	1	Yes	0.861	0.137	1.00	Yes	1.00	**6.00**
		L_{29} - L_{30}			-----	-1500.31	-1086	2781	-649	1488	220	364	635	722	-----	-----	-----	-----	-----	-----	-----	-----	0.762	0.202	0.97	Yes	0.755	0.243	1.00	Yes	1.00	**3.45**
		L_{30} - L_{31}			-----	-1529.40	1748	-548	2534	-875	510	408	241	60	-----	-----	-----	-----	-----	-----	-----	-----	0.777	0.180	0.96	Yes	0.770	0.221	1.00	Yes	1.00	**2.18**
		L_{31} - L_{32}			-----	-1505.51	-587	179	-287	-755	210	-269	-84	289	-----	-----	-----	-----	-----	-----	-----	-----	0.908	0.085	1	Yes	0.901	0.075	0.98	Yes	1.00	**7.03**
		L_{32} - L_{33}			-----	-1035.39	1078	-51	855	-593	-338	2	78	-60	-----	-----	-----	-----	-----	-----	-----	-----	0.856	0.119	0.98	Yes	0.849	0.147	1.00	Yes	1.00	**4.38**
		L_{33} - L_{34}			-----	-740.42	579	-5	582	-690	91	-130	-214	316	-----	-----	-----	-----	-----	-----	-----	-----	0.876	0.064	0.94	Yes	0.870	0.121	1.00	Yes	1.00	**4.14**
		L_{34} - L_{35}			567.08	-772.43	849	-93	172	-1169	-203	85	384	-119	0.506	0.233	0.74	Yes	0.295	0.144	0.44	Yes	0.817	0.111	0.93	Yes	0.811	0.187	1.00	Yes	1.00	**7.53**
		L_{35} - L_{36}			1082.72	-403.41	629	-99	255	-1237	160	-135	-512	731	0.757	0.236	1.00	Yes	0.510	0.149	0.66	Yes	0.334	0.133	0.47	Yes	0.332	0.167	0.50	Yes	1.00	**6.94**
		L_{36} - L_{37}			1377.85	-----	325	-242	-527	-1476	-198	148	501	-488	0.790	0.204	1.00	Yes	0.519	0.122	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.20**
		L_{37} - L_{38}			1817.55	-----	-296	-616	-1606	-1875	117	-181	-1015	532	0.769	0.227	1.00	Yes	0.511	0.137	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.62**
		L_{38} - L_{39}			1838.53	-----	-566	-213	-1857	-698	-106	174	634	139	0.789	0.204	1.00	Yes	0.529	0.126	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.11**
		L_{39} - L_{40}			1814.53	-----	-403	-296	-1384	-949	135	-117	129	323	0.846	0.153	1.00	Yes	0.560	0.091	0.66	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.60**
		L_{40} - L_{41}			1373.95	-----	-1326	103	-1155	-48	117	-252	225	-169	0.815	0.178	1.00	Yes	0.550	0.114	0.67	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.50**
		L_{41} - L_{42}			1032.81	-----	-1009	205	-212	-83	-208	-72	142	-68	0.825	0.171	1.00	Yes	0.542	0.099	0.65	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.75**
		L_{42} - L_{43}			578.61	-----	-1289	584	-270	141	197	12	-135	156	0.703	0.295	1.00	Yes	0.418	0.190	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.69**
		L_{43} - L_{44}			126.54	-262.02	-3026	1327	70	-135	381	111	-55	-16	0.154	0.678	0.84	Yes	0.091	0.437	0.53	Yes	0.377	0.423	0.8	Yes	0.374	0.616	1.00	Yes	1.00	**31.12**
	Structure 3	L_0 - L_1			-----	-447.92	45	-178	306	-637	27	124	-42	-189	-----	-----	-----	-----	-----	-----	-----	-----	0.814	0.143	0.96	Yes	0.806	0.191	1.00	Yes	1.00	**5.85**
		L_1 - L_2			161.57	-38.10	137	-188	954	-1684	161	-113	-733	1148	0.247	0.743	1.00	Yes	0.167	0.473	0.65	Yes	0.069	0.678	0.75	Yes	0.069	0.505	0.58	Yes	1.00	**16.36**
		L_2 - L_3			889.86	-----	-18	-201	186	-756	-64	168	580	-109	0.775	0.220	1.00	Yes	0.496	0.134	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**11.50**
		L_3 - L_4			1146.96	-----	19	-407	118	-1326	192	-4	-342	825	0.725	0.268	1.00	Yes	0.471	0.166	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.22**
		L_4 - L_5			1636.14	-----	-386	-249	-1280	-926	-37	223	219	-630	0.799	0.199	1.00	Yes	0.513	0.118	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.08**
		L_5 - L_6			1596.28	-----	-141	-459	-562	-1409	254	-31	-426	621	0.780	0.213	1.00	Yes	0.507	0.130	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.28**
		L_6 - L_7			1304.75	-----	-1323	331	-862	121	545	-67	-172	61	0.767	0.228	1.00	Yes	0.497	0.140	0.64	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.16**
		L_7 - L_8			1107.32	-77.85	-89	186	-538	-181	145	-198	-143	145	0.874	0.119	1.00	Yes	0.559	0.071	0.64	Yes	0.073	0.097	0.18	Yes	0.072	0.095	0.17	Yes	1.00	**8.75**
		L_8 - L_9			578.18	-----	-727	631	-541	241	291	-318	-200	-181	0.749	0.248	1.00	Yes	0.449	0.161	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.90**
		L_9 - L_{10}			20.92	-551.08	-337	572	-283	221	28	-107	-72	-349	0.027	0.213	0.24	Yes	0.016	0.127	0.15	Yes	0.847	0.079	0.93	Yes	0.840	0.152	1.00	Yes	1.00	**5.77**
		L_{10} - L_{11}			-----	-1079.14	-651	816	110	-116	246	331	-399	-340	-----	-----	-----	-----	-----	-----	-----	-----	0.878	0.071	0.95	Yes	0.869	0.128	1.00	Yes	1.00	**11.88**
		L_{11} - L_{12}			-----	-1275.61	-84	1188	-45	694	110	124	366	141	-----	-----	-----	-----	-----	-----	-----	-----	0.818	0.178	1	Yes	0.808	0.157	0.97	Yes	1.00	**3.29**
		L_{12} - L_{13}			-----	-1135.35	989	-23	1326	-96	-88	78	19	2	-----	-----	-----	-----	-----	-----	-----	-----	0.728	0.268	1	Yes	0.719	0.176	0.90	Yes	1.00	**3.49**
		L_{13} - L_{14}			-----	-1102.57	20	209	312	-534	226	-259	-145	172	-----	-----	-----	-----	-----	-----	-----	-----	0.898	0.094	1	Yes	0.887	0.084	0.98	Yes	1.00	**5.59**
		L_{14} - L_{15}			-----	-716.45	566	103	156	-276	-256	76	-179	-578	-----	-----	-----	-----	-----	-----	-----	-----	0.849	0.145	1	Yes	0.840	0.128	0.97	Yes	1.00	**4.97**
		L_{15} - L_{16}			191.60	-559.96	482	146	176	-510	259	-224	-654	529	0.248	0.252	0.50	Yes	0.149	0.160	0.31	Yes	0.861	0.134	1	Yes	0.853	0.135	0.99	Yes	1.00	**5.92**
		L_{16} - L_{17}			721.97	-192.56	416	-29	-440	-398	-172	159	360	-49	0.831	0.164	1.00	Yes	0.493	0.104	0.60	Yes	0.263	0.134	0.4	Yes	0.261	0.106	0.37	Yes	1.00	**6.33**
		L_{17} - L_{18}			731.06	-80.07	109	-67	-523	-447	94	-109	-147	66	0.841	0.150	1.00	Yes	0.487	0.090	0.58	Yes	0.109	0.164	0.28	Yes	0.108	0.126	0.24	Yes	1.00	**7.20**
		L_{18} - L_{19}			474.02	-----	-679	78	-34	-87	231	155	-325	79	0.725	0.274	1.00	Yes	0.443	0.182	0.63	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**14.05**
		L_{19} - L_{20}			235.46	-100.16	-1397	1400	525	-643	-988	-268	198	54	0.360	0.632	1.00	Yes	0.212	0.381	0.60	Yes	0.182	0.447	0.63	Yes	0.180	0.420	0.61	Yes	1.00	**55.36**

Moment (End) AI Operating

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 Vehicle 1.300 Pedestrian
LL Factor: 1.300 1.300

			Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression									
					Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield				Controlling Bi-Axial Moment & Axial Value	Rating
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Verticals	Structure 1	$U_0 - L_0$	-----	-299.61	-57	152	-8	42	-782	-251	232	75	-----	-----	-----	-----	-----	-----	-----	-----	0.669	0.325	1	Yes	0.634	0.195	0.83	Yes	1.00	**2.57**
		$U_1 - L_1$	41.12	-305.36	-234	226	43	-35	-935	-386	610	209	0.074	0.570	0.65	Yes	0.041	0.314	0.36	Yes	0.667	0.325	1	Yes	0.646	0.300	0.95	Yes	1.00	**5.28**
		$U_2 - L_2$	68.34	-133.02	-28	59	66	-71	-2687	-811	747	242	0.123	0.869	1.00	Yes	0.068	0.478	0.55	Yes	0.291	0.665	0.96	Yes	0.281	0.091	0.38	Yes	1.00	**3.97**
		$U_3 - L_3$	207.86	-0.92	37	-31	231	-244	-1079	-333	-705	-625	0.374	0.624	1.00	Yes	0.206	0.343	0.55	Yes	0.002	0.553	0.56	Yes	0.002	0.312	0.32	Yes	1.00	**7.22**
		$U_4 - L_4$	-----	-186.72	74	-75	366	-378	686	333	-601	-230	-----	-----	-----	-----	-----	-----	-----	-----	0.411	0.586	1	Yes	0.395	0.483	0.88	Yes	1.00	**11.09**
		$U_5 - L_5$	-----	-364.19	79	-85	182	-200	1106	632	148	211	-----	-----	-----	-----	-----	-----	-----	-----	0.659	0.341	1	Yes	0.628	0.203	0.84	Yes	1.00	**4.49**
		$U_6 - L_6$	-----	-424.46	78	-66	171	-179	1459	726	-1346	-320	-----	-----	-----	-----	-----	-----	-----	-----	0.643	0.352	1	Yes	0.609	0.157	0.77	Yes	1.00	**4.02**
		$U_7 - L_7$	-----	-331.06	124	-139	235	-258	885	226	487	98	-----	-----	-----	-----	-----	-----	-----	-----	0.553	0.441	1	Yes	0.511	0.254	0.77	Yes	1.00	**2.01**
		$U_8 - L_8$	-----	-1180.67	-426	506	134	-167	-1334	-608	745	93	-----	-----	-----	-----	-----	-----	-----	-----	0.855	0.139	1	Yes	0.822	0.094	0.92	Yes	1.00	**6.65**
		$U_9 - L_9$	-----	-657.33	-410	457	-230	262	-379	-129	589	221	-----	-----	-----	-----	-----	-----	-----	-----	0.784	0.177	0.97	Yes	0.742	0.254	1.00	Yes	1.00	**3.51**
		$U_{10} - L_{10}$	-----	-778.90	-398	441	-163	145	-405	-33	695	312	-----	-----	-----	-----	-----	-----	-----	-----	0.807	0.188	1	Yes	0.769	0.229	1.00	Yes	1.00	**5.17**
		$U_{11} - L_{11}$	-----	-665.57	-383	483	-166	217	-739	-122	622	359	-----	-----	-----	-----	-----	-----	-----	-----	0.798	0.195	1	Yes	0.775	0.224	1.00	Yes	1.00	**4.90**
		$U_{12} - L_{12}$	-----	-423.25	-210	226	-137	138	-1962	-532	664	369	-----	-----	-----	-----	-----	-----	-----	-----	0.611	0.383	1	Yes	0.581	0.193	0.78	Yes	1.00	**3.05**
		$U_{13} - L_{13}$	-----	-345.53	-163	188	-85	101	-651	-14	552	249	-----	-----	-----	-----	-----	-----	-----	-----	0.699	0.294	1	Yes	0.662	0.214	0.88	Yes	1.00	**4.87**
		$U_{14} - L_{14}$	-----	-171.70	-93	107	-6	7	-1632	-471	-2011	-592	-----	-----	-----	-----	-----	-----	-----	-----	0.383	0.614	1	Yes	0.363	0.137	0.51	Yes	1.00	**9.80**
		$U_{15} - L_{15}$	30.95	-256.31	-31	27	176	-201	456	96	-1307	-415	0.056	0.635	0.70	Yes	0.031	0.349	0.39	Yes	0.574	0.418	1	Yes	0.542	0.257	0.80	Yes	1.00	**8.98**
		$U_{16} - L_{16}$	-----	-319.13	37	-42	239	-251	485	106	-672	-201	-----	-----	-----	-----	-----	-----	-----	-----	0.719	0.275	1	Yes	0.675	0.320	1.00	Yes	1.00	**7.10**
		$U_{17} - L_{17}$	-----	-418.81	77	-90	198	-219	505	197	-104	-11	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.211	1	Yes	0.723	0.223	0.95	Yes	1.00	**4.45**
		$U_{18} - L_{18}$	-----	-458.14	186	-192	371	-384	689	178	468	134	-----	-----	-----	-----	-----	-----	-----	-----	0.671	0.322	1	Yes	0.637	0.217	0.86	Yes	1.00	**3.23**
		$U_{19} - L_{19}$	-----	-564.29	193	-206	404	-429	602	121	569	95	-----	-----	-----	-----	-----	-----	-----	-----	0.704	0.291	1	Yes	0.657	0.199	0.86	Yes	1.00	**3.82**
		$U_{20} - L_{20}$	-----	-448.00	238	-286	348	-407	438	57	386	51	-----	-----	-----	-----	-----	-----	-----	-----	0.654	0.343	1	Yes	0.573	0.215	0.79	Yes	1.00	**1.90**
	Structure 2	$U_0 - L_0$	-----	-640.97	-255	442	-155	257	-857	-145	60	10	-----	-----	-----	-----	-----	-----	-----	-----	0.767	0.227	1	Yes	0.687	0.188	0.88	Yes	1.00	**2.69**
		$U_1 - L_1$	-----	-714.28	-548	551	-187	195	-437	-110	618	151	-----	-----	-----	-----	-----	-----	-----	-----	0.817	0.145	0.97	Yes	0.765	0.234	1.00	Yes	1.00	**4.57**
		$U_2 - L_2$	-----	-596.41	-432	457	-135	151	-387	160	619	266	-----	-----	-----	-----	-----	-----	-----	-----	0.799	0.175	0.98	Yes	0.760	0.234	1.00	Yes	1.00	**4.14**
		$U_3 - L_3$	-----	-459.48	-207	228	-65	76	-229	136	546	255	-----	-----	-----	-----	-----	-----	-----	-----	0.782	0.211	1	Yes	0.721	0.207	0.93	Yes	1.00	**3.47**
		$U_4 - L_4$	-----	-318.52	-183	196	-3	14	-615	9	574	224	-----	-----	-----	-----	-----	-----	-----	-----	0.722	0.273	1	Yes	0.674	0.251	0.93	Yes	1.00	**4.67**
		$U_5 - L_5$	115.69	-255.93	-136	168	89	-84	-1152	-161	580	168	0.208	0.548	0.76	Yes	0.114	0.301	0.42	Yes	0.578	0.418	1	Yes	0.542	0.215	0.76	Yes	1.00	**7.18**
		$U_6 - L_6$	196.99	-----	-53	58	119	-132	-1637	-367	599	162	0.354	0.642	1.00	Yes	0.195	0.353	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**8.30**
		$U_7 - L_7$	-----	-176.65	62	-70	247	-286	-56	-55	-749	-169	-----	-----	-----	-----	-----	-----	-----	-----	0.399	0.598	1	Yes	0.374	0.366	0.74	Yes	1.00	**11.13**
		$U_8 - L_8$	-----	-467.65	169	-184	345	-368	611	183	-596	-238	-----	-----	-----	-----	-----	-----	-----	-----	0.678	0.191	0.87	Yes	0.674	0.322	1.00	Yes	1.00	**4.64**
		$U_9 - L_9$	-----	-692.43	278	-280	563	-586	1045	566	-537	-159	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.205	0.98	Yes	0.742	0.249	1.00	Yes	1.00	**5.44**
		$U_{10} - L_{10}$	-----	-755.73	236	-235	519	-524	1160	717	-219	93	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.252	1	Yes	0.707	0.231	0.94	Yes	1.00	**4.83**
		$U_{11} - L_{11}$	-----	-725.34	227	-219	442	-452	1200	692	392	376	-----	-----	-----	-----	-----	-----	-----	-----	0.730	0.261	1	Yes	0.678	0.199	0.88	Yes	1.00	**4.00**
		$U_{12} - L_{12}$	-----	-723.20	184	-164	414	-412	1482	651	747	443	-----	-----	-----	-----	-----	-----	-----	-----	0.694	0.303	1	Yes	0.627	0.178	0.81	Yes	1.00	**3.92**
		$U_{13} - L_{13}$	-----	-623.06	217	-216	519	-513	1173	309	106	-15	-----	-----	-----	-----	-----	-----	-----	-----	0.694	0.304	1	Yes	0.601	0.248	0.85	Yes	1.00	**4.33**
		$U_{14} - L_{14}$	-----	-1155.08	-496	457	524	-502	-1340	-714	821	91	-----	-----	-----	-----	-----	-----	-----	-----	0.845	0.149	1	Yes	0.766	0.093	0.86	Yes	1.00	**7.96**
		$U_{15} - L_{15}$	-----	-685.51	-631	615	-249	259	-683	-162	624	56	-----	-----	-----	-----	-----	-----	-----	-----	0.764	0.231	1	Yes	0.661	0.302	0.97	Yes	1.00	**4.97**
		$U_{16} - L_{16}$	-----	-715.37	-497	482	-158	126	-484	-96	797	157	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.173	1	Yes	0.767	0.211	0.98	Yes	1.00	**4.58**
		$U_{17} - L_{17}$	-----	-643.59	-521	526	-191	183	-493	8	673	150	-----	-----	-----	-----	-----	-----	-----	-----	0.794	0.166	0.96	Yes	0.749	0.244	1.00	Yes	1.00	**4.47**
		$U_{18} - L_{18}$	-----	-581.40	-455	488	-173	161	-607	-32	660	167	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.172	0.95	Yes	0.741	0.250	1.00	Yes	1.00	**4.37**
		$U_{19} - L_{19}$	-----	-478.94	-285	288	-108	104	-726	-51	563	174	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.208	0.93	Yes	0.715	0.277	1.00	Yes	1.00	**4.29**
		$U_{20} - L_{20}$	-----	-357.27	-184	195	-59	62	-714	-136	586	137	-----	-----	-----	-----	-----	-----	-----	-----	0.733	0.260	1	Yes	0.684	0.223	0.91	Yes	1.00	**5.79**
		$U_{21} - L_{21}$	-----	-279.21	-164	187	-31	33	-1026	-216	662	111	-----	-----	-----	-----	-----	-----	-----	-----	0.631	0.366	1	Yes	0.591	0.239	0.83	Yes	1.00	**8.01**
		$U_{22} - L_{22}$	-----	-161.22	-45	54	111	-127	-1831	-579	-2203	-728	-----	-----	-----	-----	-----	-----	-----	-----	0.363	0.630	1	Yes	0.341	0.163	0.51	Yes	1.00	**11.07**
		$U_{23} - L_{23}$	-----	-310.74	35	-39	210	-232	644	239	-696	-200	-----	-----	-----	-----	-----	-----	-----	-----	0.702	0.293	1	Yes	0.658	0.296	0.96	Yes	1.00	**6.25**
		$U_{24} - L_{24}$	-----	-315.80	78	-81	164	-175	634	240	-1068	-135	-----	-----	-----	-----	-----	-----	-----	-----	0.647	0.347	1	Yes	0.605	0.200	0.81	Yes	1.00	**2.60**
		$U_{25} - L_{25}$	-----	-470.54	113	-111	304	-298	629	252	-49	89	-----	-----	-----	-----	-----	-----	-----	-----	0.708	0.194	0.91	Yes	0.703	0.292	1.00	Yes	1.00	**3.59**
		$U_{26} - L_{26}$	-----	-582.43	171	-168	485	-503	717	314	47	215	-----	-----	-----	-----	-----	-----	-----	-----	0.776	0.189	0.97	Yes	0.742	0.257	1.00	Yes	1.00	**4.28**
		$U_{27} - L_{27}$	-----	-584.29	196	-189	502	-506	1276	597	335	309	-----	-----	-----	-----	-----	-----	-----	-----	0.721	0.270	1	Yes	0.680	0.235	0.92	Yes	1.00	**4.26**
		$U_{28} - L_{28}$	-----	-600.81	115	-83	438	-419	1794	596	630	366	-----	-----	-----	-----	-----	-----	-----	-----	0.694	0.305	1	Yes	0.644	0.186	0.83	Yes	1.00	**4.87**
		$U_{29} - L_{29}$	-----	-608.51	109	-117	600	-597	1261	182	-163	-81	-----	-----	-----	-----	-----	-----	-----	-----	0.678	0.317	1	Yes	0.587	0.287	0.88	Yes	1.00	**5.92**
		$U_{30} - L_{30}$	-----	-1136.41	-624	553	227	-241	-1007	-286	621	-110	-----	-----	-----	-----	-----	-----	-----	-----	0.863	0.134	1	Yes	0.782	0.116	0.90	Yes	1.00	**6.76**
		$U_{31} - L_{31}$	-----	-630.01	-471	465	-309	305	-1345	-75	464	90	-----	-----	-----	-----	-----	-----	-----	-----	0.702	0.297	1	Yes	0.607	0.226	0.84	Yes	1.00	**2.75**
		$U_{32} - L_{32}$	-----	-861.27	-465	464	-212	180	-549	-54	578	160	-----	-----	-----	-----	-----	-----	-----	-----	0.826	0.164	1	Yes	0.747	0.200	0.95	Yes	1.00	**4.57**
		$U_{33} - L_{33}$	-----	-817.38	-485	494	-247	227	-632	12	521	206	-----	-----	-----	-----	-----	-----	-----	-----	0.822	0.168	1	Yes	0.764	0.218	0.99	Yes	1.00	**4.85**
		$U_{34} - L_{34}$	-----	-776.87	-489	526	-246	238	-1026	-80	475	195	-----	-----	-----	-----	-----	-----	-----	-----	0.768	0.230	1	Yes	0.726	0.232	0.96	Yes	1.00	**5.52**
		$U_{35} - L_{35}$	-----	-692.91	-529	574	-270	274	-1111	-195	597	302	-----	-----	-----	-----	-----	-----	-----	-----	0.771	0.220	1	Yes	0.743	0.244	0.99	Yes	1.00	**5.95**
		$U_{36} - L_{36}$	-----	-470.40	-329	358	-151	168	-1140	-156	558	264	-----	-----	-----	-----	-----	-----	-----	-----	0.682	0.304	0.99	Yes	0.678	0.313	1.00	Yes	1.00	**5.50**
		$U_{37} - L_{37}$	-----	-165.06	-166	197	-69	81	-1494	-266	466	131	-----	-----	-----	-----	-----	-----	-----	-----	0.373	0.625	1	Yes	0.349	0.251	0.61	Yes	1.00	**8.80**
		$U_{38} - L_{38}$	176.61	-89.72	-121	132	131	-136	478	144	-1747	-623	0.318	0.680	1.00	Yes	0.175	0.374	0.55	Yes	0.202	0.473	0.68	Yes	0.190	0.174	0.37	Yes	1.00	**8.49**
		$U_{39} - L_{39}$	70.89	-294.88	-63	58	192	-217	521	154	-855	-249	0.127	0.524	0.66	Yes	0.070	0.288	0.36	Yes	0.666	0.332	1	Yes	0.624	0.277	0.91	Yes	1.00	**6.59**
		$U_{40} - L_{40}$	-----	-327.81	24	-32	216	-222	590	168	-192	-59	-----	-----	-----	-----	-----	-----	-----	-----	0.743	0.254	1	Yes	0.694	0.284	0.98	Yes	1.00	**4.48**
		$U_{41} - L_{41}$	-----	-463.75	80	-88	232	-246	570	188	59	52	-----	-----	-----	-----	-----	-----	-----	-----	0.789	0.209	1	Yes	0.727	0.224	0.96	Yes	1.00	**3.67**
		$U_{42} - L_{42}$	-----	-578.36	156	-166	493	-501	665	169	56	94	-----	-----	-----	-----	-----	-----	-----	-----	0.775	0.171	0.95	Yes	0.737	0.256	1.00	Yes	1.00	**4.74**
		$U_{43} - L_{43}$	-----	-710.28	175	-193	523	-550	634	186	357	156	-----	-----	-----	-----	-----	-----	-----	-----	0.813	0.155	0.97	Yes	0.761	0.233	1.00	Yes	1.00	**5.70**
		$U_{44} - L_{44}$	-----	-671.99	242	-297	505	-620	539	91	306	52	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.190	1	Yes	0.720	0.263	0.99	Yes	1.00	**4.82**
	Structure 3	$U_0 - L_0$	-----	-546.13	-219	365	-133	231	-499	-65	109	14	-----	-----	-----	-----	-----	-----	-----	-----	0.780	0.211	1	Yes	0.684	0.188	0.88	Yes	1.00	**2.40**
		$U_1 - L_1$	-----	-650.35	-517	510	-208	207	-470	-44	619	144	-----	-----	-----	-----	-----	-----	-----	-----	0.812	0.162	0.98	Yes	0.757	0.240	1.00	Yes	1.00	**4.61**
		$U_2 - L_2$	-----	-549.98	-381	407	-158	169	-510	103	661	306	-----	-----	-----	-----	-----	-----	-----	-----	0.805	0.194	1	Yes	0.765	0.230	1.00	Yes	1.00	**4.13**
		$U_3 - L_3$	-----	-409.54	-187	209	-70	85	-385	97	567	271	-----	-----	-----	-----	-----	-----	-----	-----	0.766	0.233	1	Yes	0.707	0.212	0.92	Yes	1.00	**3.23**
		$U_4 - L_4$	-----	-228.97	-121	138	-47	53	-1980	-95	585	230	-----	-----	-----	-----	-----	-----	-----	-----	0.516	0.477	1	Yes	0.484	0.177	0.67	Yes	1.00	**3.23**
		$U_5 - L_5$	45.31	-164.75	-77	94	47	-45	-1633	-229	673	208	0.081	0.593	0.68	Yes	0.045	0.326	0.38	Yes	0.369	0.625	1	Yes	0.349	0.120	0.47	Yes	1.00	**8.64**
		$U_6 - L_6$	-----	-178.48	51	-57	274	-308	616	187	-1057	-362	-----	-----	-----	-----	-----	-----	-----	-----	0.398	0.594	1	Yes	0.378	0.393	0.78	Yes	1.00	**11.46**
		$U_7 - L_7$	-----	-369.60	102	-118	226	-254	543	180	-275	-86	-----	-----	-----	-----	-----	-----	-----	-----	0.747	0.229	0.98	Yes	0.708	0.290	1.00	Yes	1.00	**4.61**
		$U_8 - L_8$	-----	-487.82	157	-154	315	-315	1044	590	-110	68	-----	-----	-----	-----	-----	-----	-----	-----	0.705	0.290	1	Yes	0.669	0.269	0.94	Yes	1.00	**5.02**
		$U_9 - L_9$	-----	-597.46	182	-227	373	-462	1316	788	260	303	-----	-----	-----	-----	-----	-----	-----	-----	0.717	0.280	1	Yes	0.695	0.214	0.91	Yes	1.00	**5.26**
		$U_{10} - L_{10}$	-----	-631.36	153	-142	311	-326	1667	919	647	513	-----	-----	-----	-----	-----	-----	-----	-----	0.654	0.338	1	Yes	0.623	0.169	0.80	Yes	1.00	**4.93**
		$U_{11} - L_{11}$	-----	-511.66	218	-254	343	-395	1041	493	714	368	-----	-----	-----	-----	-----	-----	-----	-----	0.610	0.389	1	Yes	0.578	0.220	0.80	Yes	1.00	**1.85**
		$U_{12} - L_{12}$	-----	-1134.71	-383	407	273	-371	-1546	-464	1039	284	-----	-----	-----	-----	-----	-----	-----	-----	0.819	0.172	1	Yes	0.787	0.076	0.87	Yes	1.00	**7.45**
		$U_{13} - L_{13}$	-----	-447.61	-293	313	-154	169	-402	-117	533	55	-----	-----	-----	-----	-----	-----	-----	-----	0.748	0.213	0.97	Yes	0.691	0.308	1.00	Yes	1.00	**3.28**
		$U_{14} - L_{14}$	-----	-413.25	-179	203	-101	90	-1564	-446	726	257	-----	-----	-----	-----	-----	-----	-----	-----	0.626	0.365	1	Yes	0.593	0.177	0.77	Yes	1.00	**2.89**
		$U_{15} - L_{15}$	-----	-401.67	-139	163	-79	85	-548	-470	738	240	-----	-----	-----	-----	-----	-----	-----	-----	0.727	0.273	1	Yes	0.693	0.165	0.86	Yes	1.00	**5.15**
		$U_{16} - L_{16}$	-----	-192.18	-180	184	-71	75	-1628	-729	-763	-34	-----	-----	-----	-----	-----	-----	-----	-----	0.423	0.577	1	Yes	0.407	0.236	0.65	Yes	1.00	**10.55**
		$U_{17} - L_{17}$	182.11	-89.81	-181	203	36	-57	480	178	-1422	-619	0.328	0.671	1.00	Yes	0.180	0.369	0.55	Yes	0.197	0.421	0.62	Yes	0.190	0.259	0.45	Yes	1.00	**10.68**
		$U_{18} - L_{18}$	152.52	-255.16	-158	172	201	-236	468	147	-1342	-495	0.274	0.690	0.97	Yes	0.151	0.379	0.54	Yes	0.558	0.440	1	Yes	0.540	0.301	0.85	Yes	1.00	**12.05**
		$U_{19} - L_{19}$	-----	-297.39	-28	12	179	-200	437	218	480	237	-----	-----	-----	-----	-----	-----	-----	-----	0.650	0.348	1	Yes	0.629	0.256	0.89	Yes	1.00	**5.62**
		$U_{20} - L_{20}$	-----	-240.42	85	-99	175	-209	596	191	589	189	-----	-----	-----	-----	-----	-----	-----	-----	0.537	0.458	1	Yes	0.509	0.267	0.78	Yes	1.00	**2.47**

Operating Loads - HS20 Lane

Calc: BKC Date: 10/28/2009
Check: NRF Date: 11/2/2009

DL Factor: 1.300 1.300
LL Factor: 1.300 1.300

			Vehicle	Pedestrian	Axial Force		ZZ Axis Bending				YY Axis Bending				Tension								Compression								Controlling Bi-Axial Moment & Axial Value	Rating
							Max. Pos. Mom.		Max. Neg. Mom.		Max. Pos. Mom.		Max. Neg. Mom.		Yield				Fracture				Buckle				Yield					
			Max. Tension	Max. Comp.	Start	End	Start	End	Start	End	Start	End	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass	Axial Portion	Moment Portion	Total	Pass		
			(kips)&	(kips)&	k-in	k-in	k-in	k-in	k-in	k-in	k-in	k-in																		
South Truss - Diagonals	Structure 1	$U_0 - L_1$	566.30	-73.42	4	32	3	-15	-868	-485	136	201	0.743	0.256	1.00	Yes	0.449	0.141	0.59	Yes	0.125	0.269	0.4	Yes	0.113	0.037	0.16	Yes	1.00	**6.20**
		$U_1 - L_2$	340.28	-----	-92	6	-73	-24	-934	-466	-808	-785	0.612	0.388	1.00	Yes	0.337	0.213	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.98**
		$U_2 - L_3$	-----	-248.24	0	-15	-12	-48	182	53	-1550	-75	-----	-----	-----	-----	-----	-----	-----	-----	0.571	0.421	1	Yes	0.525	0.062	0.59	Yes	1.00	**5.45**
		$U_3 - L_4$	-----	-295.59	33	-9	10	-74	578	361	-787	-267	-----	-----	-----	-----	-----	-----	-----	-----	0.676	0.318	1	Yes	0.625	0.094	0.72	Yes	1.00	**6.14**
		$U_4 - L_4$	553.72	-----	-63	94	-51	26	292	187	-357	-173	0.812	0.179	1.00	Yes	0.447	0.098	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.45**
		$U_4 - L_5$	652.66	-----	-120	283	-44	103	189	358	-250	30	0.772	0.226	1.00	Yes	0.424	0.125	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.22**
		$U_5 - L_6$	617.01	-----	-247	293	-42	94	-54	29	-550	31	0.729	0.267	1.00	Yes	0.401	0.147	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.92**
		$U_6 - L_7$	634.02	-----	-42	360	23	103	139	-34	-213	-132	0.750	0.244	1.00	Yes	0.412	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.79**
		$U_8 - L_9$	956.34	-----	-33	405	-3	180	-380	-218	282	160	0.765	0.229	1.00	Yes	0.474	0.128	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.09**
		$U_9 - L_{10}$	981.86	-----	-285	280	-122	116	-666	-420	345	153	0.785	0.212	1.00	Yes	0.486	0.120	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.61**
		$U_{10} - L_{11}$	931.95	-----	-213	211	-95	91	-846	-684	81	-102	0.787	0.209	1.00	Yes	0.487	0.120	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.56**
		$U_{11} - L_{12}$	744.43	-----	-234	85	-107	43	-829	-999	64	-113	0.736	0.258	1.00	Yes	0.405	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.54**
		$U_{12} - L_{13}$	569.17	-----	-204	142	-83	61	-651	-584	121	-15	0.694	0.305	1.00	Yes	0.437	0.174	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.19**
		$U_{13} - L_{14}$	284.52	-----	-50	42	-84	-40	155	-62	-1299	-745	0.512	0.484	1.00	Yes	0.281	0.266	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**9.12**
		$U_{15} - L_{14}$	-----	-147.48	15	-19	-144	-241	-429	320	1190	-151	-----	-----	-----	-----	-----	-----	-----	-----	0.346	0.645	1	Yes	0.312	0.308	0.62	Yes	1.00	**44.87**
		$U_{16} - L_{15}$	390.20	-21.25	-155	88	-12	-8	323	27	-299	-125	0.702	0.292	1.00	Yes	0.386	0.160	0.55	Yes	0.050	0.175	0.23	Yes	0.045	0.198	0.25	Yes	1.00	**9.45**
		$U_{17} - L_{16}$	528.85	-----	-149	96	-44	21	96	-1	-312	-110	0.776	0.224	1.00	Yes	0.427	0.123	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.63**
		$U_{18} - L_{17}$	617.96	-----	-338	254	-128	86	74	55	-406	-118	0.731	0.265	1.00	Yes	0.402	0.146	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.18**
		$U_{19} - L_{18}$	696.36	-----	-330	249	-129	94	-91	49	-461	-207	0.754	0.245	1.00	Yes	0.415	0.134	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.51**
		$U_{20} - L_{19}$	683.31	-----	-417	333	-182	146	-179	-137	-272	-141	0.740	0.258	1.00	Yes	0.407	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.72**
	Structure 2	$U_0 - L_1$	712.35	-----	-187	276	-97	122	-1063	-352	-127	19	0.705	0.287	1.00	Yes	0.388	0.158	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.90**
		$U_1 - L_2$	705.01	-----	-381	290	-152	107	-789	-571	170	-6	0.697	0.295	1.00	Yes	0.384	0.162	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.81**
		$U_2 - L_3$	577.74	-----	-309	247	-104	76	-763	-543	156	-2	0.683	0.313	1.00	Yes	0.376	0.172	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.76**
		$U_3 - L_4$	515.72	-----	-167	110	-44	19	-762	-486	194	29	0.687	0.312	1.00	Yes	0.378	0.172	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.82**
		$U_4 - L_5$	312.77	-77.01	-125	72	13	-26	-956	-460	271	61	0.563	0.437	1.00	Yes	0.309	0.240	0.55	Yes	0.190	0.420	0.62	Yes	0.163	0.160	0.33	Yes	1.00	**5.73**
		$U_5 - L_6$	244.34	-239.94	-84	2	69	-69	-1416	-498	404	128	0.439	0.517	0.96	Yes	0.242	0.284	0.53	Yes	0.567	0.431	1	Yes	0.508	0.107	0.62	Yes	1.00	**8.59**
		$U_6 - L_7$	-----	-378.41	-3	-44	41	-101	-252	-554	-624	-181	-----	-----	-----	-----	-----	-----	-----	-----	0.810	0.185	1	Yes	0.725	0.116	0.85	Yes	1.00	**7.01**
		$U_8 - L_7$	545.99	-----	-175	144	-99	55	283	125	-599	-690	0.696	0.297	1.00	Yes	0.438	0.171	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.03**
		$U_8 - L_9$	579.82	-----	-291	224	-199	128	1313	160	-447	-413	0.628	0.365	1.00	Yes	0.345	0.201	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.89**
		$U_{10} - L_9$	788.47	-----	-276	251	-151	137	84	550	-200	-27	0.780	0.210	1.00	Yes	0.429	0.116	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.05**
		$U_{11} - L_{10}$	871.82	-----	-308	340	-146	164	235	281	-388	139	0.794	0.198	1.00	Yes	0.437	0.109	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.76**
		$U_{12} - L_{11}$	829.11	-----	-300	362	-126	176	-14	282	-603	65	0.755	0.236	1.00	Yes	0.415	0.130	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.42**
		$U_{13} - L_{12}$	733.37	-----	-418	384	-157	162	-239	164	-532	-6	0.726	0.273	1.00	Yes	0.399	0.150	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.39**
		$U_{14} - L_{13}$	703.17	-----	-185	450	-9	120	606	122	-157	-117	0.696	0.299	1.00	Yes	0.383	0.165	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.87**
		$U_{14} - L_{15}$	578.50	-----	-153	363	6	152	-101	-43	562	256	0.684	0.307	1.00	Yes	0.376	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.63**
		$U_{15} - L_{16}$	585.63	-----	-347	319	-154	149	53	-370	602	197	0.692	0.306	1.00	Yes	0.381	0.168	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.26**
		$U_{16} - L_{17}$	686.66	-----	-328	357	-121	156	-431	-307	356	126	0.744	0.253	1.00	Yes	0.409	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.30**
		$U_{17} - L_{18}$	627.11	-----	-281	278	-105	134	-500	-321	389	126	0.741	0.250	1.00	Yes	0.408	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.88**
		$U_{18} - L_{19}$	602.23	-----	-275	247	-77	109	-680	-477	366	146	0.712	0.279	1.00	Yes	0.392	0.153	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.46**
		$U_{19} - L_{20}$	529.68	-----	-173	166	-36	58	-825	-399	448	231	0.675	0.323	1.00	Yes	0.371	0.186	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.51**
		$U_{20} - L_{21}$	352.30	-----	-114	96	-15	25	-742	-329	416	222	0.634	0.360	1.00	Yes	0.348	0.198	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.11**
		$U_{21} - L_{22}$	69.14	-97.38	-4	57	-27	-109	536	349	-2296	-911	0.124	0.804	0.93	Yes	0.068	0.442	0.52	Yes	0.230	0.767	1	Yes	0.206	0.139	0.35	Yes	1.00	**12.81**
		$U_{23} - L_{22}$	363.23	-----	-114	49	-51	-36	689	168	367	-48	0.653	0.346	1.00	Yes	0.359	0.190	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**10.87**
		$U_{24} - L_{23}$	409.33	-----	-129	102	-41	30	250	85	-327	-191	0.736	0.259	1.00	Yes	0.405	0.143	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.65**
		$U_{25} - L_{24}$	564.14	-----	-179	165	-74	72	128	569	-323	-170	0.719	0.277	1.00	Yes	0.396	0.158	0.56	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.06**
		$U_{26} - L_{25}$	661.36	-----	-260	293	-66	124	282	249	-197	79	0.782	0.217	1.00	Yes	0.430	0.119	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.40**
		$U_{27} - L_{26}$	631.28	-----	-266	307	-81	129	107	272	-432	141	0.746	0.252	1.00	Yes	0.410	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.08**
		$U_{28} - L_{27}$	657.66	-----	-280	350	-70	128	-52	220	-635	31	0.712	0.283	1.00	Yes	0.392	0.156	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.37**
		$U_{29} - L_{28}$	581.17	-----	-341	320	-63	79	8	573	-636	-77	0.687	0.308	1.00	Yes	0.378	0.169	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.70**
		$U_{30} - L_{29}$	582.09	-----	-140	377	62	38	537	95	-289	-251	0.688	0.311	1.00	Yes	0.379	0.171	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.89**
		$U_{30} - L_{31}$	727.67	-----	-259	437	-53	218	-477	-246	446	202	0.720	0.274	1.00	Yes	0.396	0.151	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.70**
		$U_{31} - L_{32}$	738.34	-----	-427	379	-229	211	-434	-252	315	82	0.730	0.263	1.00	Yes	0.402	0.145	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.49**
		$U_{32} - L_{33}$	822.34	-----	-338	332	-154	193	-762	-531	305	82	0.749	0.248	1.00	Yes	0.412	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.05**
		$U_{33} - L_{34}$	808.02	-----	-285	307	-168	160	-934	-510	154	-49	0.736	0.258	1.00	Yes	0.405	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.81**
		$U_{34} - L_{35}$	755.31	-----	-260	256	-149	130	-851	-511	48	-107	0.747	0.248	1.00	Yes	0.411	0.136	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.97**
		$U_{35} - L_{36}$	643.98	-----	-290	236	-214	122	-881	-482	5	-363	0.698	0.293	1.00	Yes	0.384	0.161	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.67**
		$U_{36} - L_{37}$	514.15	-----	-174	143	-82	64	-915	-609	90	-69	0.656	0.342	1.00	Yes	0.413	0.197	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.34**
		$U_{38} - L_{37}$	-----	-358.22	12	-42	33	-92	-324	-197	385	-90	-----	-----	-----	-----	-----	-----	-----	-----	0.774	0.224	1	Yes	0.686	0.105	0.80	Yes	1.00	**7.59**
		$U_{39} - L_{38}$	377.13	-211.47	-124	41	59	-65	544	-90	-365	-80	0.678	0.316	1.00	Yes	0.373	0.174	0.55	Yes	0.504	0.313	0.82	Yes	0.447	0.158	0.61	Yes	1.00	**9.05**
		$U_{40} - L_{39}$	394.55	-39.65	-140	90	3	-16	156	40	-378	-100	0.710	0.288	1.00	Yes	0.390	0.158	0.55	Yes	0.095	0.169	0.27	Yes	0.084	0.178	0.27	Yes	1.00	**5.84**
		$U_{41} - L_{40}$	558.49	-----	-178	125	-51	25	6	6	-413	-181	0.744	0.249	1.00	Yes	0.409	0.137	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.14**
		$U_{42} - L_{41}$	619.08	-----	-326	262	-113	83	-34	36	-409	-173	0.732	0.259	1.00	Yes	0.403	0.142	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.25**
		$U_{43} - L_{42}$	771.93	-----	-375	309	-125	93	-90	84	-388	-200	0.764	0.232	1.00	Yes	0.420	0.128	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.43**
		$U_{44} - L_{43}$	792.68	-----	-407	384	-153	146	56	59	-167	22	0.784	0.214	1.00	Yes	0.431	0.118	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.83**
	Structure 3	$U_0 - L_1$	650.70	-----	-180	234	-79	104	-1034	-377	-144	3	0.705	0.290	1.00	Yes	0.388	0.159	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.10**
		$U_1 - L_2$	635.11	-----	-338	242	-159	109	-797	-538	161	-42	0.688	0.304	1.00	Yes	0.378	0.167	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.82**
		$U_2 - L_3$	561.91	-----	-303	240	-125	86	-873	-618	129	-29	0.664	0.330	1.00	Yes	0.365	0.181	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.12**
		$U_3 - L_4$	458.94	-----	-133	72	-43	21	-665	-800	150	-29	0.673	0.321	1.00	Yes	0.370	0.177	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**3.71**
		$U_4 - L_5$	280.59	-50.21	-140	64	-1	-14	-1088	-672	271	53	0.505	0.493	1.00	Yes	0.278	0.271	0.55	Yes	0.119	0.392	0.52	Yes	0.106	0.178	0.29	Yes	1.00	**10.11**
		$U_5 - L_6$	-----	-210.53	-3	-33	18	-105	135	-30	-1074	-422	-----	-----	-----	-----	-----	-----	-----	-----	0.493	0.503	1	Yes	0.445	0.134	0.58	Yes	1.00	**6.77**
		$U_7 - L_6$	413.77	-----	-90	39	-48	11	108	-134	-473	-221	0.744	0.252	1.00	Yes	0.409	0.139	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.86**
		$U_8 - L_7$	631.05	-----	-204	166	-93	70	245	114	-241	-103	0.769	0.226	1.00	Yes	0.484	0.127	0.62	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.94**
		$U_8 - L_9$	833.78	-----	-232	156	-106	54	440	382	-266	-35	0.825	0.173	1.00	Yes	0.454	0.095	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.75**
		$U_{10} - L_9$	966.39	-----	-188	248	-92	100	477	517	-202	50	0.816	0.183	1.00	Yes	0.505	0.103	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.47**
		$U_{11} - L_{10}$	988.60	-----	-279	318	-83	107	485	424	-531	-33	0.790	0.209	1.00	Yes	0.490	0.118	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**6.19**
		$U_{12} - L_{11}$	954.82	-----	-23	408	14	142	418	282	-423	-86	0.763	0.236	1.00	Yes	0.473	0.132	0.61	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**5.65**
		$U_{12} - L_{13}$	582.74	-----	-51	319	-21	149	4	-43	665	200	0.689	0.302	1.00	Yes	0.379	0.166	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.78**
		$U_{13} - L_{14}$	638.09	-----	-279	248	-116	118	-219	-447	424	136	0.754	0.240	1.00	Yes	0.415	0.132	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.87**
		$U_{14} - L_{15}$	507.10	-----	-150	211	-69	101	-1515	-243	124	-314	0.600	0.395	1.00	Yes	0.330	0.217	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**4.70**
		$U_{15} - L_{16}$	399.77	-----	-4	97	-70	-5	532	294	-1353	-809	0.586	0.413	1.00	Yes	0.322	0.227	0.55	Yes	-----	-----	-----	-----	-----	-----	-----	-----	1.00	**7.48**
		$U_{17} - L_{16}$	-----	-342.58	55	-8	-40	-66	-247	4	239	-446	-----	-----	-----	-----	-----	-----	-----	-----	0.783	0.207	1	Yes	0.725	0.085	0.81	Yes	1.00	**10.07**
		$U_{18} - L_{17}$	190.76	-355.76	-87	-5	70	-43	-100	-293	-202	-64	0.343	0.196	0.54	Yes	0.189	0.108	0.30	Yes	0.819	0.175	1	Yes	0.753	0.111	0.87	Yes	1.00	**13.97**
		$U_{19} - L_{18}$	462.27	-220.65	-84	6	41	-30	110	53	-207	-118	0.831	0.167	1.00	Yes	0.457	0.092	0.55	Yes	0.506	0.163	0.67	Yes	0.467	0.107	0.58	Yes	1.00	**11.79**
		$U_{20} - L_{19}$	616.45	-19.04	-142	81	-30	3	-3	23	-70	-5	0.809	0.183	1.00	Yes	0.488	0.101	0.59	Yes	0.033	0.090	0.13	Yes	0.029	0.166	0.20	Yes	1.00	**7.60**

Columbia Parkway (HAM-471-0025)
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

		Member Forces from STAAD										Impact	Lane	Maximum Positive Shear				Minimum Negative Shear				Depth of	Thickness	Number of		k	6000 sqrt(k)	7500 sqrt(k)	C	V_P	V_U	Shear Force Rating			
		D		LL_{max}		LL_{min}		Pedestrian $Load_{max}$		Pedestrian $Load_{min}$																						Positive Shear Member		Negative Shear Member	
Location	Member	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	(1+I)	Reduction	Dead (kips)	LL & Impact & Lane Reduct. (kips)	Pedestrian Load & Impact	Load Factor Groups &	Dead (kips)	LL & Impact & Lane Reduct.	Pedestrian Load & Impact	Load Factor Groups &	Web (inches)	Web (inches	Webs	D/t_W		sqrt(Fy)	sqrt(Fy)		(kips)	(kips)	Inventory RF	Operating RF	Inventory RF	Operating RF
Structure 1	U_0 - U_1	4.03	-7.05	0.42	0.42	-0.42	-0.42					1.00	0.90	4.03	0.38	-----	Vehicle	-7.05	-0.38	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**237.86**	**396.43**	**234.20**	**390.33**
	U_1 - U_2	3.66	-3.76	1.15	1.15	-0.41	-0.41					1.00	0.90	3.66	1.04	-----	Vehicle	-3.76	-0.37	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**87.19**	**145.32**	**243.48**	**405.80**
	U_2 - U_3	2.55	-7.28	0.23	0.23	-0.47	-0.47					1.00	0.90	2.55	0.21	-----	Vehicle	-7.28	-0.43	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**433.16**	**721.93**	**207.19**	**345.31**
	U_3 - U_4	2.05	-4.84	0.99	0.99	-0.23	-0.23					1.00	0.90	2.05	0.89	-----	Vehicle	-4.84	-0.21	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**102.83**	**171.38**	**432.19**	**720.31**
	U_4 - U_5	2.25	-4.26	0.03	0.03	-1.83	-1.83					1.00	0.90	2.25	0.03	-----	Vehicle	-4.26	-1.65	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**3502.21**	**5837.02**	**54.68**	**91.13**
	U_5 - U_6	3.34	-7.20	0.01	0.01	-1.16	-1.16					1.00	0.90	3.34	0.01	-----	Vehicle	-7.20	-1.04	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**10083.49**	**16805.81**	**84.64**	**141.06**
	U_6 - U_7	6.22	-5.16	0.22	0.22	-0.91	-0.91					1.00	0.90	6.22	0.20	-----	Vehicle	-5.16	-0.82	-----	Vehicle	14.00	0.75	2	9.33	5	73.85	92.32	1	401.94	401.9	**909.80**	**1516.33**	**223.22**	**372.03**
	U_7 - U_8	-2.11	-14.70	0.01	0.01	-4.09	-4.09					1.00	0.90	-2.11	0.00	-----	Vehicle	-14.70	-3.68	-----	Vehicle	14.00	1.00	2	7.00	5	73.85	92.32	1	535.92	535.9	**55247.35**	**92078.92**	**64.75**	**107.92**
	U_8 - U_9	15.50	2.88	3.90	3.90	-0.06	-0.06					1.00	0.90	15.50	3.51	-----	Vehicle	2.88	-0.06	-----	Vehicle	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	**28.18**	**46.97**	**1908.68**	**3181.14**
	U_9 - U_{10}	6.69	-6.01	0.91	0.91	-0.22	-0.22					1.00	0.90	6.69	0.82	-----	Vehicle	-6.01	-0.19	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**108.35**	**180.59**	**460.71**	**767.85**
	U_{10} - U_{11}	9.67	-1.66	1.95	1.95	-0.09	-0.09					1.00	0.90	9.67	1.75	-----	Vehicle	-1.66	-0.08	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**49.65**	**82.75**	**1185.53**	**1975.88**
	U_{11} - U_{12}	7.40	-2.11	1.57	1.57	-0.04	-0.04					1.00	0.90	7.40	1.41	-----	Vehicle	-2.11	-0.04	-----	Vehicle	14.00	0.50	2	14.00	5	73.85	92.32	1	267.96	268.0	**84.54**	**140.91**	**3238.24**	**5397.07**
	U_{12} - U_{13}	9.24	-6.21	0.94	0.94	0.00	0.00					1.00	0.90	9.24	0.84	-----	Vehicle	-6.21	-----	-----	-----	14.00	1.33	2	5.24	5	73.85	92.32	1	715.3575	715.4	**385.35**	**642.25**	-----	-----
	U_{13} - U_{14}	6.34	-2.26	2.66	2.66	-0.04	-0.04					1.00	0.90	6.34	2.39	-----	Vehicle	-2.26	-0.04	-----	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	**159.91**	**266.51**	**9951.59**	**16585.98**
	U_{14} - U_{15}	3.46	-4.65	0.14	0.14	-2.30	-2.30					1.00	0.90	3.46	0.13	-----	Vehicle	-4.65	-2.07	-----	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	**2986.84**	**4978.06**	**185.04**	**308.40**
	U_{15} - U_{16}	9.23	-5.79	0.68	0.68	0.00	0.00					1.00	0.90	9.23	0.61	-----	Vehicle	-5.79	-----	-----	-----	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	**621.54**	**1035.90**	-----	-----
	U_{16} - U_{17}	2.63	-6.22	0.16	0.16	-1.43	-1.43					1.00	0.90	2.63	0.14	-----	Vehicle	-6.22	-1.29	-----	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	**2656.35**	**4427.26**	**297.19**	**495.32**
	U_{17} - U_{18}	5.96	-9.96	0.22	0.22	-1.49	-1.49					1.00	0.90	5.96	0.20	-----	Vehicle	-9.96	-1.34	-----	Vehicle	14.00	1.15	2	6.10	5	73.85	92.32	1	614.8725	614.9	**1408.82**	**2348.03**	**206.61**	**344.36**
	U_{18} - U_{19}	3.04	-6.68	0.17	0.17	-1.24	-1.24					1.00	0.90	3.04	0.15	-----	Vehicle	-6.68	-1.12	-----	Vehicle	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	**716.43**	**1194.05**	**93.15**	**155.25**
	U_{19} - U_{20}	-1.83	-11.18	0.36	0.36	-3.69	-3.69					1.00	0.90	-1.83	0.32	-----	Vehicle	-11.18	-3.32	-----	Vehicle	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	**340.22**	**567.04**	**30.53**	**50.89**
North Truss - Upper Chord	U_0 - U_1	10.02	-6.16	1.16	1.16	-0.37	-0.37					1.00	0.90	10.02	1.04	-----	Vehicle	-6.16	-0.34	-----	Vehicle	17.00	0.38	2	22.67	5	73.85	92.32	1	244.035	244.0	**102.30**	**170.50**	**324.51**	**540.85**
	U_1 - U_2	9.17	-4.67	1.61	1.61	-0.30	-0.30					1.00	0.90	9.17	1.45	-----	Vehicle	-4.67	-0.27	-----	Vehicle	17.00	0.75	2	11.33	5	73.85	92.32	1	488.07	488.1	**151.38**	**252.30**	**835.06**	**1391.77**
	U_2 - U_3	8.60	-2.60	1.96	1.96	-0.47	-0.47					1.00	0.90	8.60	1.76	-----	Vehicle	-2.60	-0.42	-----	Vehicle	17.00	0.56	2	15.11	5	73.85	92.32	1	366.0525	366.1	**92.80**	**154.67**	**399.97**	**666.62**
	U_3 - U_4	8.30	-7.59	0.62	0.62	-0.19	-0.19					1.00	0.90	8.30	0.55	-----	Vehicle	-7.59	-0.17	-----	Vehicle	17.00	1.25	2	6.80	5	73.85	92.32	1	813.45	813.5	**668.22**	**1113.70**	**2227.53**	**3712.56**
	U_4 - U_5	5.53	-4.81	1.63	1.63	-0.51	-0.51					1.00	0.90	5.53	1.47	-----	Vehicle	-4.81	-0.46	-----	Vehicle	17.00	1.50	2	5.67	5	73.85	92.32	1	976.14	976.1	**304.66**	**507.77**	**979.09**	**1631.82**
	U_5 - U_6	2.61	-7.66	0.49	0.49	-0.64	-0.64					1.00	0.90	2.61	0.44	-----	Vehicle	-7.66	-0.57	-----	Vehicle	17.00	1.50	2	5.67	5	73.85	92.32	1	976.14	976.1	**1015.97**	**1693.29**	**777.83**	**1296.39**
	U_6 - U_7	6.14	-9.62	2.61	2.61	-0.32	-0.32					1.00	0.90	6.14	2.35	-----	Vehicle	-9.62	-0.29	-----	Vehicle	17.00	1.25	2	6.80	5	73.85	92.32	1	813.45	813.5	**158.26**	**263.77**	**1275.59**	**2125.98**
	U_7 - U_8	8.07	-7.40	0.24	0.24	-2.96	-2.96					1.00	0.90	8.07	0.21	-----	Vehicle	-7.40	-2.66	-----	Vehicle	17.00	1.25	2	6.80	5	73.85	92.32	1	813.45	813.5	**1744.79**	**2907.99**	**139.26**	**232.11**
	U_8 - U_9	4.03	-10.39	0.00	0.00	-1.48	-1.48					1.00	0.90	4.03	-----	-----	-----	-10.39	-1.33	-----	Vehicle	17.00	1.06	2	8.00	5	73.85	92.32	1	691.4325	691.4	-----	-----	**235.38**	**392.30**
	U_9 - U_{10}	2.04	-9.48	0.00	0.00	-2.35	-2.35					1.00	0.90	2.04	-----	-----	-----	-9.48	-2.11	-----	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	-----	-----	**59.47**	**99.11**
	U_{10} - U_{11}	4.39	-9.86	0.17	0.17	-1.92	-1.92					1.00	0.90	4.39	0.15	-----	Vehicle	-9.86	-1.73	-----	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	**856.75**	**1427.92**	**72.62**	**121.03**
	U_{11} - U_{12}	3.80	-11.57	0.20	0.20	-3.00	-3.00					1.00	0.90	3.80	0.18	-----	Vehicle	-11.57	-2.70	-----	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	**713.78**	**1189.64**	**46.05**	**76.75**
	U_{12} - U_{13}	9.58	-8.07	0.54	0.54	-0.90	-0.90					1.00	0.90	9.58	0.49	-----	Vehicle	-8.07	-0.81	-----	Vehicle	17.00	0.94	2	9.07	5	73.85	92.32	1	610.0875	610.1	**565.46**	**942.44**	**341.27**	**568.79**
	U_{13} - U_{14}	-8.42	-23.99	0.00	0.00	-7.85	-7.85					1.00	0.90	-8.42	-----	-----	-----	-23.99	-7.06	-----	Vehicle	17.00	1.31	2	6.48	5	73.85	92.32	1	854.1225	854.1	-----	-----	**53.77**	**89.62**
	U_{14} - U_{15}	20.62	5.04	6.87	6.87	-0.44	-0.44					1.00	0.90	20.62	6.18	-----	Vehicle	5.04	-0.40	-----	Vehicle	17.00	1.31	2	6.48	5	73.85	92.32	1	854.1225	854.1	**61.80**	**103.00**	**1000.85**	**1668.08**
	U_{15} - U_{16}	6.58	-9.91	0.58	0.58	-0.45	-0.45					1.00	0.90	6.58	0.52	-----	Vehicle	-9.91	-0.41	-----	Vehicle	17.00	1.06	2	8.00	5	73.85	92.32	1	691.4325	691.4	**607.97**	**1013.29**	**768.15**	**1280.25**
	U_{16} - U_{17}	8.97	-2.82	2.11	2.11	-0.27	-0.27					1.00	0.90	8.97	1.90	-----	Vehicle	-2.82	-0.24	-----	Vehicle	17.00	0.56	2	15.11	5	73.85	92.32	1	366.0525	366.1	**86.13**	**143.55**	**690.86**	**1151.43**
	U_{17} - U_{18}	8.01	-5.78	2.51	2.51	-0.38	-0.38					1.00	0.90	8.01	2.26	-----	Vehicle	-5.78	-0.34	-----	Vehicle	17.00	0.38	2	22.67	5	73.85	92.32	1	244.035	244.0	**47.73**	**79.55**	**323.45**	**539.09**
	U_{18} - U_{19}	8.40	-4.13	1.77	1.77	-0.22	-0.22					1.00	0.90	8.40	1.59	-----	Vehicle	-4.13	-0.20	-----	Vehicle	17.00	0.38	2	22.67	5	73.85	92.32	1	244.035	244.0	**67.73**	**112.89**	**553.80**	**923.00**
	U_{19} - U_{20}	5.53	-4.62	0.96	0.96	-0.10	-0.10					1.00	0.90	5.53	0.87	-----	Vehicle	-4.62	-0.09	-----	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	**147.63**	**246.06**	**1504.50**	**2507.49**
	U_{20} - U_{21}	6.82	-6.42	0.88	0.88	-0.14	-0.14					1.00	0.90	6.82	0.79	-----	Vehicle	-6.42	-0.12	-----	Vehicle	17.00	0.81	2	10.46	5	73.85	92.32	1	528.7425	528.7	**302.27**	**503.79**	**1947.95**	**3246.59**
	U_{21} - U_{22}	6.17	-6.84	2.23	2.23	-0.15	-0.15					1.00	0.90	6.17	2.01	-----	Vehicle	-6.84	-0.14	-----	Vehicle	17.00	0.81	2	10.46	5	73.85	92.32	1	528.7425	528.7	**119.59**	**199.31**	**1742.43**	**2904.05**
	U_{22} - U_{23}	7.10	-6.07	0.18	0.18	-2.23	-2.23					1.00	0.90	7.10	0.16	-----	Vehicle	-6.07	-2.01	-----	Vehicle	17.00	0.81	2	10.46	5	73.85	92.32	1	528.7425	528.7	**1480.08**	**2466.80**	**119.88**	**199.81**
	U_{23} - U_{24}	6.42	-6.83	0.34	0.34	-0.86	-0.86					1.00	0.90	6.42	0.30	-----	Vehicle	-6.83	-0.77	-----	Vehicle	17.00	0.81	2	10.46	5	73.85	92.32	1	528.7425	528.7	**789.57**	**1315.94**	**309.64**	**516.07**
	U_{24} - U_{25}	4.41	-5.74	0.16	0.16	-1.30	-1.30					1.00	0.90	4.41	0.14	-----	Vehicle	-5.74	-1.17	-----	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	**894.16**	**1490.26**	**109.45**	**182.42**
	U_{25} - U_{26}	4.63	-7.90	0.23	0.23	-1.77	-1.77					1.00	0.90	4.63	0.21	-----	Vehicle	-7.90	-1.59	-----	Vehicle	17.00	0.38	2	22.67	5	73.85	92.32	1	244.035	244.0	**533.02**	**888.37**	**67.65**	**112.75**
	U_{26} - U_{27}	6.07	-7.72	0.44	0.44	-2.85	-2.85					1.00	0.90	6.07	0.40	-----	Vehicle	-7.72	-2.56	-----	Vehicle	17.00	0.38	2	22.67	5	73.85	92.32	1	244.035	244.0	**273.99**	**456.64**	**42.12**	**70.20**
	U_{27} - U_{28}	3.92	-7.87	0.28	0.28	-2.03	-2.03					1.00	0.90	3.92	0.25	-----	Vehicle	-7.87	-1.83	-----	Vehicle	17.00	0.56	2	15.11	5	73.85	92.32	1	366.0525	366.1	**670.67**	**1117.78**	**89.84**	**149.74**
	U_{28} - U_{29}	9.25	-7.25	0.51	0.51	-0.85	-0.85					1.00	0.90	9.25	0.45	-----	Vehicle	-7.25	-0.76	-----	Vehicle	17.00	1.06	2	8.00	5	73.85	92.32	1	691.4325	691.4	**689.93**	**1149.89**	**413.90**	**689.84**
	U_{29} - U_{30}	-2.24	-17.81	0.05	0.05	-7.38	-7.38					1.00	0.90	-2.24	0.04	-----	Vehicle	-17.81	-6.64	-----	Vehicle	17.00	1.31	2	6.48	5	73.85	92.32	1	854.1225	854.1	**9554.44**	**15924.07**	**57.76**	**96.26**
	U_{30} - U_{31}	19.02	3.44	7.40	7.40	-0.42	-0.42					1.00	0.90	19.02	6.66	-----	Vehicle	3.44	-0.38	-----	Vehicle	17.00	1.31	2	6.48	5	73.85	92.32	1	854.1225	854.1	**57.49**	**95.81**	**1043.38**	**1738.97**
	U_{31} - U_{32}	7.21	-10.44	0.62	0.62	-0.52	-0.52					1.00	0.90	7.21	0.56	-----	Vehicle	-10.44	-0.47	-----	Vehicle	17.00	0.94	2	9.07	5	73.85	92.32	1	610.0875	610.1	**496.07**	**826.79**	**584.91**	**974.85**
	U_{32} - U_{33}	10.43	-4.94	2.91	2.91	-0.23	-0.23					1.00	0.90	10.43	2.62	-----	Vehicle	-4.94	-0.21	-----	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	**47.77**	**79.61**	**609.87**	**1016.46**
	U_{33} - U_{34}	8.67	-5.58	1.51	1.51	-0.21	-0.21					1.00	0.90	8.67	1.36	-----	Vehicle	-5.58	-0.19	-----	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	**93.11**	**155.18**	**690.70**	**1151.17**
	U_{34} - U_{35}	8.17	-3.35	2.15	2.15	0.00	0.00					1.00	0.90	8.17	1.94	-----	Vehicle	-3.35	-----	-----	-----	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	**65.26**	**108.76**	-----	-----
	U_{35} - U_{36}	9.30	-5.12	1.36	1.36	-0.01	-0.01					1.00	0.90	9.30	1.22	-----	Vehicle	-5.12	0.00	-----	Vehicle	17.00	1.06	2	8.00	5	73.85	92.32	1	691.4325	691.4	**256.92**	**428.20**	**70233.35**	**117055.59**
	U_{36} - U_{37}	6.76	-8.71	3.00	3.00	-0.35	-0.35					1.00	0.90	6.76	2.70	-----	Vehicle	-8.71	-0.31	-----	Vehicle	17.00	1.25	2	6.80	5	73.85	92.32	1	813.45	813.5	**137.64**	**229.40**	**1182.02**	**1970.04**
	U_{37} - U_{38}	10.16	-5.61	0.55	0.55	-2.38	-2.38					1.00	0.90	10.16	0.49	-----	Vehicle	-5.61	-2.14	-----	Vehicle	17.00	1.25	2	6.80	5	73.85	92.32	1	813.45	813.5	**748.87**	**1248.12**	**173.70**	**289.51**
	U_{38} - U_{39}	7.26	-3.01	0.85	0.85	-0.33	-0.33					1.00	0.90	7.26	0.76	-----	Vehicle	-3.01	-0.29	-----	Vehicle	17.00	1.50	2	5.67	5	73.85	92.32	1	976.14	976.1	**585.99**	**976.65**	**1529.38**	**2548.96**
	U_{39} - U_{40}	5.16	-5.17	0.46	0.46	-1.56	-1.56					1.00	0.90	5.16	0.41	-----	Vehicle	-5.17	-1.40	-----	Vehicle	17.00	1.50	2	5.67	5	73.85	92.32	1	976.14	976.1	**1078.40**	**1797.34**	**319.50**	**532.49**
	U_{40} - U_{41}	8.09	-7.79	0.28	0.28	-0.97	-0.97					1.00	0.90	8.09	0.25	-----	Vehicle	-7.79	-0.87	-----	Vehicle	17.00	1.25	2	6.80	5	73.85	92.32	1	813.45	813.5	**1475.84**	**2459.73**	**423.82**	**706.37**
	U_{41} - U_{42}	3.96	-7.24	0.52	0.52	-2.27	-2.27					1.00	0.90	3.96	0.47	-----	Vehicle	-7.24	-2.05	-----	Vehicle	17.00	0.56	2	15.11	5	73.85	92.32	1	366.0525	366.1	**357.30**	**595.49**	**80.46**	**134.11**
	U_{42} - U_{43}	5.30	-8.54	0.29	0.29	-1.22	-1.22					1.00	0.90	5.30	0.26	-----	Vehicle	-8.54	-1.10	-----	Vehicle	17.00	0.75	2	11.33	5	73.85	92.32	1	488.07	488.1	**842.17**	**1403.62**	**200.49**	**334.15**
	U_{43} - U_{44}	6.34	-9.84	0.77	0.77	-5.27	-5.27					1.00	0.90	6.34	0.69	-----	Vehicle	-9.84	-4.74	-----	Vehicle	17.00	0.38	2	22.67	5	73.85	92.32	1	244.035	244.0	**156.84**	**261.40**	**22.52**	**37.53**
Structure 2	U_0 - U_1	7.32	-2.03	0.86	0.86	-0.14	-0.14					1.00	0.90	7.32	0.77	-----	Vehicle	-2.03	-0.12	-----	Vehicle	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	**134.61**	**224.35**	**861.51**	**1435.85**
	U_1 - U_2	6.45	-3.27	1.47	1.47	-0.15	-0.15					1.00	0.90	6.45	1.32	-----	Vehicle	-3.27	-0.13	-----	Vehicle	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	**78.82**	**131.36**	**808.62**	**1347.70**
	U_2 - U_3	9.46	-6.46	1.27	1.27	-0.18	-0.18					1.00	0.90	9.46	1.14	-----	Vehicle	-6.46	-0.17	-----	Vehicle	14.00	1.15	2	6.10	5	73.85	92.32	1	614.8725	614.9	**242.94**	**404.89**	**1690.29**	**2817.15**
	U_3 - U_4	5.96	-2.88	0.93	0.93	-0.10	-0.10					1.00	0.90	5.96	0.84	-----	Vehicle	-2.88	-0.09	-----	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	**458.46**	**764.10**	**4232.68**	**7054.47**
	U_4 - U_5	5.42	-9.60	0.35	0.35	-0.34	-0.34					1.00	0.90	5.42	0.31	-----	Vehicle	-9.60	-0.31	-----	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	**1230.66**	**2051.09**	**1233.31**	**2055.51**
	U_5 - U_6	5.10	-3.00	2.35	2.35	-0.07	-0.07					1.00	0.90	5.10	2.12	-----	Vehicle	-3.00	-0.06	-----	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	**181.29**	**302.14**	**5936.40**	**9894.01**
	U_6 - U_7	2.12	-6.47	0.02	0.02	-2.72	-2.72					1.00	0.90	2.12	0.01	-----	Vehicle	-6.47	-2.45	-----	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	**26750.48**	**44584.14**	**156.46**	**260.77**
	U_7 - U_8	7.00	-8.45	0.02	0.02	-0.65	-0.65					1.00	0.90	7.00	0.02	-----	Vehicle	-8.45	-0.59	-----	Vehicle	14.00	1.33	2	5.24	5	73.85	92.32	1	715.3575	715.4	**18109.17**	**30181.94**	**552.32**	**920.53**
	U_8 - U_9	2.51	-7.01	0.01	0.01	-1.95	-1.95					1.00	0.90	2.51	0.01	-----	Vehicle	-7.01	-1.75	-----	Vehicle	14.00	0.50	2	14.00	5	73.85	92.32	1	267.96	268.0	**11312.00**	**18853.34**	**68.14**	**113.57**
	U_9 - U_{10}	2.56	-8.76	0.04	0.04	-2.16	-2.16					1.00	0.90	2.56	0.04	-----	Vehicle	-8.76	-1.94	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**2533.84**	**4223.06**	**45.01**	**75.01**
	U_{10} - U_{11}	5.86	-6.85	0.23	0.23	-1.25	-1.25					1.00	0.90	5.86	0.21	-----	Vehicle	-6.85	-1.12	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**425.57**	**709.28**	**78.86**	**131.43**
	U_{11} - U_{12}	-1.36	-13.98	0.03	0.03	-4.33	-4.33					1.00	0.90	-1.36	0.03	-----	Vehicle	-13.98	-3.89	-----	Vehicle	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	**3671.06**	**6118.44**	**25.63**	**42.72**
	U_{12} - U_{13}	11.54	-1.05	3.77	3.77	-0.04	-0.04					1.00	0.90	11.54	3.39	-----	Vehicle	-1.05	-0.04	-----	Vehicle	14.00	1.00	2	7.00	5	73.85	92.32	1	535.92	535.9	**70.86**	**118.10**	**6526.86**	**10

Columbia Parkway (HAM-471-0025)
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

		Member Forces from STAAD												Maximum Positive Shear				Minimum Negative Shear													Shear Force Rating			
		D		LL_{max}		LL_{min}		Pedestrian $Load_{max}$		Pedestrian $Load_{min}$		Impact (1+I)	Lane Reduction	Dead (kips)	LL & Impact & Lane Reduct. (kips)	Pedestrian Load & Impact	Load Factor Groups &	Dead (kips)	LL & Impact & Lane Reduct.	Pedestrian Load & Impact	Load Factor Groups &	Depth of Web (inches)	Thickness of Web (inches	Number of Webs	D/t_W	k	6000 sqrt(k) sqrt(Fy)	7500 sqrt(k) sqrt(Fy)	C	V_P (kips)	V_U (kips)	Positive Shear Member		Negative Shear Member	
Location	Member	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)																					Inventory RF	Operating RF	Inventory RF	Operating RF
Structure 1	L_0 - L_1	8.29	-6.54	1.25	1.25	-0.38	-0.38					1.00	0.90	8.29	1.13	-----	Vehicle	-6.54	-0.34	-----	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**89.59**	**149.32**	**302.46**	**504.11**
	L_1 - L_2	13.57	-7.41	1.01	1.01	-0.43	-0.43					1.00	0.90	13.57	0.91	-----	Vehicle	-7.41	-0.39	-----	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**107.66**	**179.44**	**263.65**	**439.42**
	L_2 - L_3	8.55	-7.89	0.28	0.28	-0.28	-0.28					1.00	0.90	8.55	0.26	-----	Vehicle	-7.89	-0.25	-----	Vehicle	15.00	0.62	2	12.14	5	73.85	92.32	1	354.8556	354.9	**620.70**	**1034.50**	**624.45**	**1040.76**
	L_3 - L_4	10.78	-10.72	1.10	1.10	-0.55	-0.55					1.00	0.90	10.78	0.99	-----	Vehicle	-10.72	-0.50	-----	Vehicle	15.00	0.62	2	12.14	5	73.85	92.32	1	354.8556	354.9	**158.76**	**264.60**	**317.87**	**529.79**
	L_4 - L_5	8.11	-17.42	0.12	0.12	-2.13	-2.13					1.00	0.90	8.11	0.11	-----	Vehicle	-17.42	-1.92	-----	Vehicle	15.00	0.52	2	14.42	5	73.85	92.32	1	298.584	298.6	**1262.54**	**2104.23**	**66.40**	**110.67**
	L_5 - L_6	5.24	-12.36	0.00	0.00	-1.47	-1.47					1.00	0.90	5.24	-----	-----	-----	-12.36	-1.32	-----	Vehicle	15.00	0.77	2	9.74	5	73.85	92.32	1	442.134	442.1	-----	-----	**149.14**	**248.57**
	L_6 - L_7	8.00	-14.21	0.88	0.88	-1.38	-1.38					1.00	0.90	8.00	0.79	-----	Vehicle	-14.21	-1.24	-----	Vehicle	15.00	1.22	2	6.17	5	73.85	92.32	1	698.2272	698.2	**400.83**	**668.05**	**253.52**	**422.53**
	L_7 - L_8	-2.07	-18.23	0.00	0.00	-5.12	-5.12					1.00	0.90	-2.07	-----	-----	-----	-18.23	-4.61	-----	-----	15.00	1.62	2	4.64	5	73.85	92.32	1	927.9072	927.9	-----	-----	**90.53**	**150.88**
	L_8 - L_9	18.91	4.31	5.24	5.24	0.00	0.00					1.00	0.90	18.91	4.72	-----	Vehicle	4.31	-----	-----	-----	15.00	1.62	2	4.64	5	73.85	92.32	1	927.9072	927.9	**88.40**	**147.34**	-----	-----
	L_9 - L_{10}	15.84	-6.96	1.21	1.21	-0.83	-0.83					1.00	0.90	15.84	1.09	-----	Vehicle	-6.96	-0.75	-----	Vehicle	15.00	1.22	2	6.17	5	73.85	92.32	1	698.2272	698.2	**287.43**	**479.05**	**424.79**	**707.99**
	L_{10} - L_{11}	13.53	-2.36	2.19	2.19	0.00	0.00					1.00	0.90	13.53	1.97	-----	Vehicle	-2.36	-----	-----	-----	15.00	0.52	2	14.42	5	73.85	92.32	1	298.584	298.6	**65.83**	**109.72**	-----	-----
	L_{11} - L_{12}	19.25	-6.84	1.50	1.50	-0.07	-0.07					1.00	0.90	19.25	1.35	-----	Vehicle	-6.84	-0.06	-----	Vehicle	15.00	0.52	2	14.42	5	73.85	92.32	1	298.584	298.6	**93.40**	**155.67**	**2063.32**	**3438.87**
	L_{12} - L_{13}	12.12	-8.55	0.68	0.68	0.00	0.00					1.00	0.90	12.12	0.61	-----	Vehicle	-8.55	-----	-----	-----	15.00	1.02	2	7.35	5	73.85	92.32	1	585.684	585.7	**432.36**	**720.60**	-----	-----
	L_{13} - L_{14}	22.27	-6.22	3.10	3.10	-0.10	-0.10					1.00	0.90	22.27	2.79	-----	Vehicle	-6.22	-0.09	-----	Vehicle	15.00	1.46	2	5.15	5	73.85	92.32	1	836.8965	836.9	**133.74**	**222.90**	**4208.26**	**7013.77**
	L_{14} - L_{15}	10.80	-20.25	0.36	0.36	-2.29	-2.29					1.00	0.90	10.80	0.33	-----	Vehicle	-20.25	-2.06	-----	Vehicle	15.00	1.81	2	4.15	5	73.85	92.32	1	1037.8665	1037.9	**1442.41**	**2404.02**	**226.82**	**378.03**
	L_{15} - L_{16}	11.52	-8.07	0.47	0.47	-0.05	-0.05					1.00	0.90	11.52	0.42	-----	Vehicle	-8.07	-0.05	-----	Vehicle	15.00	1.81	2	4.15	5	73.85	92.32	1	1037.8665	1037.9	**1116.09**	**1860.15**	**9940.72**	**16567.86**
	L_{16} - L_{17}	4.39	-17.69	0.21	0.21	-1.64	-1.64					1.00	0.90	4.39	0.19	-----	Vehicle	-17.69	-1.48	-----	Vehicle	15.00	1.34	2	5.61	5	73.85	92.32	1	767.9925	768.0	**1843.95**	**3073.25**	**232.53**	**387.55**
	L_{17} - L_{18}	6.80	-13.02	0.20	0.20	-1.39	-1.39					1.00	0.90	6.80	0.18	-----	Vehicle	-13.02	-1.25	-----	Vehicle	15.00	0.90	2	8.33	5	73.85	92.32	1	516.78	516.8	**1295.92**	**2159.86**	**184.55**	**307.58**
	L_{18} - L_{19}	5.40	-17.11	0.16	0.16	-1.48	-1.48					1.00	0.90	5.40	0.15	-----	Vehicle	-17.11	-1.33	-----	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**700.52**	**1167.53**	**71.97**	**119.96**
	L_{19} - L_{20}	8.88	-11.26	0.11	0.11	-1.32	-1.32					1.00	0.90	8.88	0.10	-----	Vehicle	-11.26	-1.19	-----	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**989.93**	**1649.89**	**83.73**	**139.55**
Structure 2	L_0 - L_1	8.18	-2.11	1.81	1.81	-0.31	-0.31					1.00	0.90	8.18	1.63	-----	Vehicle	-2.11	-0.28	-----	Vehicle	18.00	0.45	2	20.00	5	73.85	92.32	1	310.068	310.1	**85.03**	**141.71**	**511.70**	**852.83**
	L_1 - L_2	10.03	-0.24	1.46	1.46	-0.29	-0.29					1.00	0.90	10.03	1.31	-----	Vehicle	-0.24	-0.26	-----	Vehicle	18.00	0.45	2	20.00	5	73.85	92.32	1	310.068	310.1	**104.69**	**174.48**	**542.14**	**903.57**
	L_2 - L_3	7.20	-1.56	1.54	1.54	-0.36	-0.36					1.00	0.90	7.20	1.39	-----	Vehicle	-1.56	-0.33	-----	Vehicle	18.00	0.83	2	10.91	5	73.85	92.32	1	568.458	568.5	**185.94**	**309.90**	**802.42**	**1337.37**
	L_3 - L_4	11.38	-0.50	1.26	1.26	-0.30	-0.30					1.00	0.90	11.38	1.13	-----	Vehicle	-0.50	-0.27	-----	Vehicle	18.00	1.19	2	7.57	5	73.85	92.32	1	819.6705	819.7	**327.84**	**546.41**	**1423.77**	**2372.96**
	L_4 - L_5	6.29	-6.01	0.82	0.82	-0.37	-0.37					1.00	0.90	6.29	0.74	-----	Vehicle	-6.01	-0.34	-----	Vehicle	18.00	1.56	2	5.76	5	73.85	92.32	1	1076.625	1076.6	**666.58**	**1110.96**	**1469.46**	**2449.10**
	L_5 - L_6	10.14	-2.08	1.20	1.20	-0.52	-0.52					1.00	0.90	10.14	1.08	-----	Vehicle	-2.08	-0.47	-----	Vehicle	18.00	1.72	2	5.24	5	73.85	92.32	1	1184.2875	1184.3	**500.06**	**833.43**	**1169.77**	**1949.61**
	L_6 - L_7	3.45	-8.48	0.97	0.97	-0.54	-0.54					1.00	0.90	3.45	0.87	-----	Vehicle	-8.48	-0.48	-----	Vehicle	18.00	1.75	2	5.16	5	73.85	92.32	1	1202.949	1202.9	**633.60**	**1056.01**	**1142.52**	**1904.19**
	L_7 - L_8	3.58	-10.31	0.21	0.21	-2.10	-2.10					1.00	0.90	3.58	0.19	-----	Vehicle	-10.31	-1.89	-----	Vehicle	18.00	1.23	2	7.35	5	73.85	92.32	1	844.074	844.1	**2040.14**	**3400.24**	**202.46**	**337.44**
	L_8 - L_9	0.48	-13.07	0.09	0.09	-1.55	-1.55					1.00	0.90	0.48	0.08	-----	Vehicle	-13.07	-1.39	-----	Vehicle	18.00	0.96	2	9.37	5	73.85	92.32	1	661.7655	661.8	**3685.30**	**6142.17**	**214.01**	**356.69**
	L_9 - L_{10}	1.68	-14.60	0.00	0.00	-1.86	-1.86					1.00	0.90	1.68	-----	-----	-----	-14.60	-1.67	-----	Vehicle	18.00	0.70	2	12.86	5	73.85	92.32	1	482.328	482.3	-----	-----	**127.68**	**212.80**
	L_{10} - L_{11}	3.92	-15.22	0.49	0.49	-2.14	-2.14					1.00	0.90	3.92	0.44	-----	Vehicle	-15.22	-1.92	-----	Vehicle	18.00	0.60	2	15.00	5	73.85	92.32	1	413.424	413.4	**425.61**	**709.35**	**94.46**	**157.44**
	L_{11} - L_{12}	1.30	-14.23	0.00	0.00	-2.99	-2.99					1.00	0.90	1.30	-----	-----	-----	-14.23	-2.69	-----	Vehicle	18.00	0.96	2	9.33	5	73.85	92.32	1	664.6365	664.6	-----	-----	**110.67**	**184.45**
	L_{12} - L_{13}	6.61	-7.28	1.87	1.87	-1.43	-1.43					1.00	0.90	6.61	1.68	-----	Vehicle	-7.28	-1.29	-----	Vehicle	18.00	1.41	2	6.37	5	73.85	92.32	1	973.269	973.3	**264.41**	**440.68**	**344.67**	**574.45**
	L_{13} - L_{14}	-16.93	-26.03	0.00	0.00	-10.59	-10.59					1.00	0.90	-16.93	-----	-----	-----	-26.03	-9.53	-----	Vehicle	18.00	1.73	2	5.22	5	73.85	92.32	1	1188.594	1188.6	-----	-----	**55.90**	**93.16**
	L_{14} - L_{15}	25.44	16.49	10.34	10.34	0.00	0.00					1.00	0.90	25.44	9.30	-----	Vehicle	16.49	-----	-----	-----	18.00	1.73	2	5.22	5	73.85	92.32	1	1188.594	1188.6	**57.32**	**95.53**	-----	-----
	L_{15} - L_{16}	1.92	-10.98	0.62	0.62	-2.37	-2.37					1.00	0.90	1.92	0.56	-----	Vehicle	-10.98	-2.13	-----	Vehicle	18.00	1.41	2	6.37	5	73.85	92.32	1	973.269	973.3	**804.25**	**1340.42**	**207.77**	**346.28**
	L_{16} - L_{17}	14.35	-0.89	2.95	2.95	-0.02	-0.02					1.00	0.90	14.35	2.65	-----	Vehicle	-0.89	-0.02	-----	Vehicle	18.00	1.12	2	8.06	5	73.85	92.32	1	769.428	769.4	**130.69**	**217.81**	**20735.92**	**34559.87**
	L_{17} - L_{18}	10.22	-3.50	1.93	1.93	-0.60	-0.60					1.00	0.90	10.22	1.74	-----	Vehicle	-3.50	-0.54	-----	Vehicle	18.00	0.70	2	12.86	5	73.85	92.32	1	482.328	482.3	**124.76**	**207.93**	**407.68**	**679.46**
	L_{18} - L_{19}	9.38	-1.77	1.67	1.67	0.00	0.00					1.00	0.90	9.38	1.50	-----	Vehicle	-1.77	-----	-----	-----	18.00	0.50	2	18.00	5	73.85	92.32	1	344.52	344.5	**102.11**	**170.18**	-----	-----
	L_{19} - L_{20}	12.39	-6.31	1.01	1.01	-0.30	-0.30					1.00	0.90	12.39	0.91	-----	Vehicle	-6.31	-0.27	-----	Vehicle	18.00	0.50	2	18.00	5	73.85	92.32	1	344.52	344.5	**166.75**	**277.92**	**576.83**	**961.38**
	L_{20} - L_{21}	8.96	-3.52	0.93	0.93	-0.13	-0.13					1.00	0.90	8.96	0.84	-----	Vehicle	-3.52	-0.12	-----	Vehicle	18.00	0.81	2	11.08	5	73.85	92.32	1	559.845	559.8	**302.94**	**504.89**	**2125.02**	**3541.71**
	L_{21} - L_{22}	9.68	-4.49	2.63	2.63	-0.45	-0.45					1.00	0.90	9.68	2.36	-----	Vehicle	-4.49	-0.40	-----	Vehicle	18.00	0.81	2	11.08	5	73.85	92.32	1	559.845	559.8	**106.91**	**178.19**	**635.59**	**1059.31**
	L_{22} - L_{23}	4.66	-10.03	0.49	0.49	-2.41	-2.41					1.00	0.90	4.66	0.44	-----	Vehicle	-10.03	-2.17	-----	Vehicle	18.00	0.81	2	11.08	5	73.85	92.32	1	559.845	559.8	**580.76**	**967.94**	**116.30**	**193.84**
	L_{23} - L_{24}	3.70	-6.40	0.22	0.22	-0.85	-0.85					1.00	0.90	3.70	0.20	-----	Vehicle	-6.40	-0.77	-----	Vehicle	18.00	0.81	2	11.08	5	73.85	92.32	1	559.845	559.8	**1311.68**	**2186.13**	**332.75**	**554.58**
	L_{24} - L_{25}	-0.87	-1.56	0.34	0.34	-1.32	-1.32					1.00	0.90	-0.87	0.31	-----	Vehicle	-1.56	-1.19	-----	Vehicle	18.00	0.50	2	18.00	5	73.85	92.32	1	344.52	344.5	**522.89**	**871.48**	**133.36**	**222.27**
	L_{25} - L_{26}	-3.04	-3.58	0.01	0.01	-1.70	-1.70					1.00	0.90	-3.04	0.01	-----	Vehicle	-3.58	-1.53	-----	Vehicle	18.00	0.50	2	18.00	5	73.85	92.32	1	344.52	344.5	**17870.09**	**29783.49**	**102.58**	**170.97**
	L_{26} - L_{27}	-1.83	-2.61	0.66	0.66	-2.26	-2.26					1.00	0.90	-1.83	0.59	-----	Vehicle	-2.61	-2.03	-----	Vehicle	18.00	0.70	2	12.86	5	73.85	92.32	1	482.328	482.3	**378.92**	**631.53**	**108.68**	**181.13**
	L_{27} - L_{28}	-4.05	-5.16	0.00	0.00	-3.05	-3.05					1.00	0.90	-4.05	-----	-----	-----	-5.16	-2.75	-----	Vehicle	18.00	1.12	2	8.06	5	73.85	92.32	1	769.428	769.4	-----	-----	**128.12**	**213.53**
	L_{28} - L_{29}	3.03	1.87	1.67	1.67	-0.70	-0.70					1.00	0.90	3.03	1.51	-----	Vehicle	1.87	-0.63	-----	Vehicle	18.00	1.41	2	6.37	5	73.85	92.32	1	973.269	973.3	**296.95**	**494.91**	**717.88**	**1196.46**
	L_{29} - L_{30}	-16.84	-17.95	0.00	0.00	-10.77	-10.77					1.00	0.90	-16.84	-----	-----	-----	-17.95	-9.69	-----	Vehicle	18.00	1.73	2	5.22	5	73.85	92.32	1	1188.594	1188.6	-----	-----	**55.48**	**92.47**
	L_{30} - L_{31}	17.64	16.51	10.44	10.44	0.00	0.00					1.00	0.90	17.64	9.39	-----	Vehicle	16.51	-----	-----	-----	18.00	1.73	2	5.22	5	73.85	92.32	1	1188.594	1188.6	**57.27**	**95.46**	-----	-----
	L_{31} - L_{32}	-0.36	-1.54	1.06	1.06	-2.08	-2.08					1.00	0.90	-0.36	0.95	-----	Vehicle	-1.54	-1.87	-----	Vehicle	18.00	1.41	2	6.37	5	73.85	92.32	1	973.269	973.3	**470.64**	**784.41**	**239.93**	**399.88**
	L_{32} - L_{33}	5.29	4.30	2.95	2.95	0.00	0.00					1.00	0.90	5.29	2.65	-----	Vehicle	4.30	-----	-----	-----	18.00	0.96	2	9.33	5	73.85	92.32	1	664.6365	664.6	**114.38**	**190.64**	-----	-----
	L_{33} - L_{34}	3.87	3.17	1.64	1.64	-0.42	-0.42					1.00	0.90	3.87	1.48	-----	Vehicle	3.17	-0.38	-----	Vehicle	18.00	0.60	2	15.00	5	73.85	92.32	1	413.424	413.4	**127.47**	**212.45**	**511.03**	**851.72**
	L_{34} - L_{35}	4.21	3.54	1.83	1.83	0.00	0.00					1.00	0.90	4.21	1.65	-----	Vehicle	3.54	-----	-----	-----	18.00	0.70	2	12.86	5	73.85	92.32	1	482.328	482.3	**133.41**	**222.35**	-----	-----
	L_{35} - L_{36}	4.37	3.40	1.47	1.47	-0.20	-0.20					1.00	0.90	4.37	1.32	-----	Vehicle	3.40	-0.18	-----	Vehicle	18.00	0.96	2	9.37	5	73.85	92.32	1	661.7655	661.8	**229.51**	**382.51**	**1708.17**	**2846.95**
	L_{36} - L_{37}	2.06	0.88	2.27	2.27	-0.33	-0.33					1.00	0.90	2.06	2.04	-----	Vehicle	0.88	-0.30	-----	Vehicle	18.00	1.23	1	14.69	5	73.85	92.32	1	422.037	422.0	**94.82**	**158.04**	**661.63**	**1102.72**
	L_{37} - L_{38}	3.79	2.22	1.14	1.14	-0.39	-0.39					1.00	0.90	3.79	1.03	-----	Vehicle	2.22	-0.35	-----	Vehicle	18.00	1.75	2	5.16	5	73.85	92.32	1	1202.949	1202.9	**538.92**	**898.21**	**1597.87**	**2663.12**
	L_{38} - L_{39}	-1.73	-3.35	0.46	0.46	-1.04	-1.04					1.00	0.90	-1.73	0.41	-----	Vehicle	-3.35	-0.93	-----	Vehicle	18.00	1.72	2	5.24	5	73.85	92.32	1	1184.2875	1184.3	**1328.56**	**2214.27**	**584.63**	**974.39**
	L_{39} - L_{40}	1.42	-0.10	0.42	0.42	-0.78	-0.78					1.00	0.90	1.42	0.37	-----	Vehicle	-0.10	-0.70	-----	Vehicle	18.00	1.56	2	5.76	5	73.85	92.32	1	1076.625	1076.6	**1324.93**	**2208.22**	**706.85**	**1178.09**
	L_{40} - L_{41}	-3.01	-4.16	0.34	0.34	-1.61	-1.61					1.00	0.90	-3.01	0.30	-----	Vehicle	-4.16	-1.45	-----	Vehicle	18.00	1.19	2	7.57	5	73.85	92.32	1	819.6705	819.7	**1256.99**	**2094.99**	**259.36**	**432.27**
	L_{41} - L_{42}	-1.55	-2.29	0.46	0.46	-1.82	-1.82					1.00	0.90	-1.55	0.41	-----	Vehicle	-2.29	-1.64	-----	Vehicle	18.00	0.83	2	10.91	5	73.85	92.32	1	568.458	568.5	**641.56**	**1069.26**	**159.42**	**265.71**
	L_{42} - L_{43}	-3.17	-3.75	0.33	0.33	-1.72	-1.72					1.00	0.90	-3.17	0.30	-----	Vehicle	-3.75	-1.55	-----	Vehicle	18.00	0.45	1	40.00	5	73.85	92.32	1	155.034	155.0	**245.84**	**409.74**	**44.80**	**74.66**
	L_{43} - L_{44}	-3.25	-3.76	0.30	0.30	-1.84	-1.84					1.00	0.90	-3.25	0.27	-----	Vehicle	-3.76	-1.65	-----	Vehicle	18.00	0.45	2	20.00	5	73.85	92.32	1	310.068	310.1	**546.36**	**910.60**	**85.15**	**141.92**
Structure 3	L_0 - L_1	6.90	-2.96	1.33	1.33	-0.11	-0.11					1.00	0.90	6.90	1.20	-----	Vehicle	-2.96	-0.09	-----	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**84.98**	**141.63**	**1102.97**	**1838.28**
	L_1 - L_2	10.33	-2.13	1.24	1.24	-0.12	-0.12					1.00	0.90	10.33	1.11	-----	Vehicle	-2.13	-0.11	-----	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**89.65**	**149.42**	**953.81**	**1589.69**
	L_2 - L_3	8.48	-3.27	1.16	1.16	-0.16	-0.16					1.00	0.90	8.48	1.04	-----	Vehicle	-3.27	-0.14	-----	Vehicle	15.00	0.90	2	8.33	5	73.85	92.32	1	516.78	516.8	**223.39**	**372.32**	**1632.52**	**2720.86**
	L_3 - L_4	10.92	-0.17	1.22	1.22	-0.15	-0.15					1.00	0.90	10.92	1.10	-----	Vehicle	-0.17	-0.14	-----	Vehicle	15.00	1.34	2	5.61	5	73.85	92.32	1	767.9925	768.0	**316.60**	**527.66**	**2607.48**	**4345.79**
	L_4 - L_5	3.28	-6.17	0.28	0.28	-0.36	-0.36					1.00	0.90	3.28	0.26	-----	Vehicle	-6.17	-0.32	-----	Vehicle	15.00	1.81	2	4.15	5	73.85	92.32	1	1037.8665	1037.9	**1866.38**	**3110.64**	**1479.35**	**2465.59**
	L_5 - L_6	10.07	-2.62	2.52	2.52	-0.29	-0.29					1.00	0.90	10.07	2.27	-----	Vehicle	-2.62	-0.26	-----	Vehicle	15.00	1.81	2	4.15	5	73.85	92.32	1	1037.8665	1037.9	**208.79**	**347.98**	**1854.87**	**3091.44**
	L_6 - L_7	-0.48	-11.65	0.05	0.05	-3.05	-3.05					1.00	0.90	-0.48	0.05	-----	Vehicle	-11.65	-2.75	-----	Vehicle	15.00	1.46	2	5.15	5	73.85	92.32	1	836.8965	836.9	**8589.98**	**14316.63**	**137.99**	**229.98**
	L_7 - L_8	3.36	-6.18	0.09	0.09	-0.55	-0.55					1.00	0.90	3.36	0.08	-----	Vehicle	-6.18	-0.50	-----	Vehicle	15.00	1.02	2	7.35	5	73.85	92.32	1	585.684	585.7	**3205.48**	**5342.46**	**538.60**	**897.67**
	L_8 - L_9	1.47	-11.13	0.02	0.02	-1.78	-1.78					1.00	0.90	1.47	0.02	-----	Vehicle	-11.13	-1.60	-----	Vehicle	15.00	0.52	2	14.42	5	73.85	92.32	1	298.584	298.6	**6915.42**	**11525.71**	**81.81**	**136.35**
	L_9 - L_{10}	-0.54	-9.03	0.00	0.00	-2.37	-2.37					1.00	0.90	-0.54	-----	-----	-----	-9.03	-2.14	-----	Vehicle	15.00	0.52	2	14.42	5	73.85	92.32	1	298.584	298.6	-----	-----	**61.99**	**103.31**
	L_{10} - L_{11}	2.22	-10.62	0.70	0.70	-1.53	-1.53					1.00	0.90	2.22	0.63	-----	Vehicle	-10.62	-1.37	-----	Vehicle	15.00	1.22	2	6.17	5	73.85	92.32	1	698.2272	698.2	**507.23**	**845.38**	**230.01**	**383.34**
	L_{11} - L_{12}	-6.24	-14.06	0.00	0.00	-5.61	-5.61					1.00	0.90	-6.24	-----	-----	-----	-14.06	-5.05	-----	Vehicle	15.00	1.62	2	4.64	5	73.85	92.32	1	927.9072	927.9	-----	-----	**83.18**	**138.63**
	L_{12} - L_{13}	12.41	3.95	5.02	5.02	0.00	0.00					1.00	0.90	12.41	4.51	-----	Vehicle	3.95	-----	-----	-----	15.00	1.62	2	4.64	5	73.85	92.32	1	927.9072	927.9	**93.22**	**155.36**	-----	-----
	L_{13} - L_{14}	5.79	-4.73	1.05	1.05	-1.03	-1.03					1.00	0.90	5.79	0.95	-----	Vehicle	-4.73

Columbia Parkway (HAM-471-0025)
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

		Member Forces from STAAD										Maximum Positive Shear				Minimum Negative Shear												Shear Force Rating			
		D		LL_{max}		LL_{min}		Pedestrian $Load_{max}$		Pedestrian $Load_{min}$																		Positive Shear Member		Negative Shear Member	
Location	Member	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Impact (1+I)	Lane Reduction	Dead (kips)	LL & Impact & Lane Reduct. (kips)	Pedestrian Load & Impact	Load Factor Groups &	Dead (kips)	LL & Impact & Lane Reduct.	Pedestrian Load & Impact	Load Factor Groups &	Depth of Web (inches)	Thickness of Web (inches	Number of Webs	D/t_W	k	6000 sqrt(k) sqrt(Fy)	7500 sqrt(k) sqrt(Fy)	C	V_P (kips)	V_U (kips)	Inventory RF	Operating RF	Inventory RF	Operating RF
Structure 1	U_0 - L_0	-3.17	-3.17	0.48	0.48	-1.62	-1.62					1.00	0.90	-3.17	0.43	-----	Vehicle	-3.17	-1.46	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**268.39**	**447.32**	**77.01**	**128.35**
	U_0 - L_1	-0.96	-0.96	0.61	0.61	-1.57	-1.57					1.00	0.90	-0.96	0.54	-----	Vehicle	-0.96	-1.41	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**210.51**	**350.85**	**80.25**	**133.75**
	U_1 - L_2	0.27	0.27	0.67	0.67	-1.24	-1.24					1.00	0.90	0.27	0.60	-----	Vehicle	0.27	-1.12	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**189.15**	**315.25**	**102.09**	**170.14**
	U_2 - L_3	1.48	1.48	0.57	0.57	-0.93	-0.93					1.00	0.90	1.48	0.51	-----	Vehicle	1.48	-0.84	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**222.53**	**370.88**	**137.47**	**229.11**
	U_3 - L_4	2.22	2.22	0.98	0.98	0.00	0.00					1.00	0.90	2.22	0.88	-----	Vehicle	2.22	-----	-----	-----	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**127.40**	**212.34**	-----	-----
	U_4 - L_5	2.71	2.71	1.88	1.88	0.00	0.00					1.00	0.90	2.71	1.69	-----	Vehicle	2.71	-----	-----	-----	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	**81.18**	**135.30**	-----	-----
	U_5 - L_6	2.52	2.52	1.54	1.54	-0.06	-0.06					1.00	0.90	2.52	1.38	-----	Vehicle	2.52	-0.05	-----	Vehicle	16.00	0.44	2	18.29	5	73.85	92.32	1	267.96	268.0	**88.31**	**147.19**	**2357.51**	**3929.19**
	U_6 - L_7	2.77	2.77	1.44	1.44	-0.04	-0.04					1.00	0.90	2.77	1.29	-----	Vehicle	2.77	-0.03	-----	Vehicle	16.25	0.44	2	18.57	5	73.85	92.32	1	272.14688	272.1	**95.90**	**159.84**	**3721.24**	**6202.07**
	U_7 - L_8	-0.17	-0.17	1.21	1.21	-0.93	-0.93					1.00	0.90	-0.17	1.09	-----	Vehicle	-0.17	-0.84	-----	Vehicle	15.25	0.82	2	9.30	5	73.85	92.32	1	478.6914	478.7	**202.97**	**338.28**	**264.12**	**440.21**
	U_8 - L_9	-4.89	-4.89	0.09	0.09	-1.82	-1.82					1.00	0.90	-4.89	0.08	-----	Vehicle	-4.89	-1.64	-----	Vehicle	16.25	0.50	2	16.25	5	73.85	92.32	1	311.025	311.0	**1731.52**	**2885.86**	**85.66**	**142.76**
	U_{10} - L_{10}	-4.01	-4.01	0.11	0.11	-1.69	-1.69					1.00	0.90	-4.01	0.10	-----	Vehicle	-4.01	-1.52	-----	Vehicle	16.16	0.83	2	9.75	5	73.85	92.32	1	512.74682	512.7	**2330.03**	**3883.38**	**154.10**	**256.83**
	U_{11} - L_{11}	-5.48	-5.48	0.03	0.03	-2.31	-2.31					1.00	0.90	-5.48	0.02	-----	Vehicle	-5.48	-2.08	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**7703.39**	**12838.99**	**80.10**	**133.51**
	U_{12} - L_{12}	-3.87	-3.87	0.00	0.00	-1.80	-1.80					1.00	0.90	-3.87	0.00	-----	Vehicle	-3.87	-1.62	-----	Vehicle	16.25	0.50	2	16.25	5	73.85	92.32	1	311.025	311.0	**162082.67**	**270137.78**	**87.27**	**145.46**
	U_{13} - L_{13}	-2.32	-2.32	0.00	0.00	-1.56	-1.56					1.00	0.90	-2.32	-----	-----	-----	-2.32	-1.40	-----	Vehicle	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	-----	-----	**88.43**	**147.38**
	U_{14} - L_{14}	-1.13	-1.13	0.00	0.00	-0.45	-0.45					1.00	0.90	-1.13	-----	-----	-----	-1.13	-0.41	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	-----	-----	**278.69**	**464.48**
	U_{15} - L_{15}	0.33	0.33	0.86	0.86	-0.25	-0.25					1.00	0.90	0.33	0.78	-----	Vehicle	0.33	-0.23	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**146.41**	**244.01**	**499.76**	**832.93**
	U_{16} - L_{16}	1.29	1.29	0.93	0.93	-0.23	-0.23					1.00	0.90	1.29	0.84	-----	Vehicle	1.29	-0.21	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**135.18**	**225.31**	**557.11**	**928.51**
	U_{17} - L_{17}	1.86	1.86	1.11	1.11	-0.18	-0.18					1.00	0.90	1.86	1.00	-----	Vehicle	1.86	-0.17	-----	Vehicle	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	**137.91**	**229.84**	**844.63**	**1407.72**
	U_{18} - L_{18}	3.24	3.24	1.54	1.54	-0.22	-0.22					1.00	0.90	3.24	1.38	-----	Vehicle	3.24	-0.20	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**102.62**	**171.03**	**739.93**	**1233.22**
	U_{19} - L_{19}	2.88	2.88	1.41	1.41	-0.16	-0.16					1.00	0.90	2.88	1.27	-----	Vehicle	2.88	-0.15	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**132.63**	**221.05**	**1163.75**	**1939.58**
	U_{20} - L_{20}	2.24	2.24	0.64	0.64	-0.07	-0.07					1.00	0.90	2.24	0.57	-----	Vehicle	2.24	-0.06	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**295.18**	**491.97**	**2720.37**	**4533.96**
Structure 2	U_0 - L_0	-2.38	-2.38	0.16	0.16	-0.95	-0.95					1.00	0.90	-2.38	0.15	-----	Vehicle	-2.38	-0.86	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	**1274.28**	**2123.80**	**214.62**	**357.70**
	U_1 - L_1	-2.50	-2.50	0.24	0.24	-1.16	-1.16					1.00	0.90	-2.50	0.21	-----	Vehicle	-2.50	-1.05	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	**876.73**	**1461.22**	**175.95**	**293.25**
	U_2 - L_2	-2.86	-2.86	0.34	0.34	-1.48	-1.48					1.00	0.90	-2.86	0.31	-----	Vehicle	-2.86	-1.33	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**506.74**	**844.57**	**114.60**	**191.00**
	U_3 - L_3	-1.82	-1.82	0.26	0.26	-0.96	-0.96					1.00	0.90	-1.82	0.23	-----	Vehicle	-1.82	-0.86	-----	Vehicle	16.32	0.53	2	15.43	5	73.85	92.32	1	330.48196	330.5	**653.98**	**1089.98**	**175.64**	**292.74**
	U_4 - L_4	-1.16	-1.16	0.34	0.34	-0.98	-0.98					1.00	0.90	-1.16	0.30	-----	Vehicle	-1.16	-0.88	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**379.43**	**632.38**	**128.52**	**214.20**
	U_5 - L_5	-0.32	-0.32	0.36	0.36	-0.79	-0.79					1.00	0.90	-0.32	0.33	-----	Vehicle	-0.32	-0.71	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**349.66**	**582.77**	**161.16**	**268.59**
	U_6 - L_6	0.40	0.40	0.33	0.33	-0.66	-0.66					1.00	0.90	0.40	0.30	-----	Vehicle	0.40	-0.59	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**383.19**	**638.65**	**192.10**	**320.17**
	U_7 - L_7	1.09	1.09	0.35	0.35	0.00	0.00					1.00	0.90	1.09	0.31	-----	Vehicle	1.09	-----	-----	-----	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**361.01**	**601.68**	-----	-----
	U_8 - L_8	2.68	2.68	1.39	1.39	0.00	0.00					1.00	0.90	2.68	1.25	-----	Vehicle	2.68	-----	-----	-----	15.75	0.44	2	18.00	5	73.85	92.32	1	263.77313	263.8	**95.75**	**159.59**	-----	-----
	U_9 - L_9	4.62	4.62	2.02	2.02	0.00	0.00					1.00	0.90	4.62	1.81	-----	Vehicle	4.62	-----	-----	-----	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	**100.76**	**167.94**	-----	-----
	U_{10} - L_{10}	4.05	4.05	1.96	1.96	-0.02	-0.02					1.00	0.90	4.05	1.77	-----	Vehicle	4.05	-0.02	-----	Vehicle	16.48	0.81	2	10.15	5	73.85	92.32	1	511.96897	512.0	**132.31**	**220.51**	**12056.77**	**20094.61**
	U_{11} - L_{11}	3.61	3.61	1.65	1.65	-0.07	-0.07					1.00	0.90	3.61	1.48	-----	Vehicle	3.61	-0.06	-----	Vehicle	16.48	0.81	2	10.15	5	73.85	92.32	1	511.96897	512.0	**157.95**	**263.25**	**4014.42**	**6690.70**
	U_{12} - L_{12}	2.81	2.81	1.43	1.43	-0.22	-0.22					1.00	0.90	2.81	1.28	-----	Vehicle	2.81	-0.20	-----	Vehicle	16.48	0.90	2	9.13	5	73.85	92.32	1	569.38897	569.4	**203.59**	**339.32**	**1317.79**	**2196.31**
	U_{13} - L_{13}	2.75	2.75	1.25	1.25	-0.09	-0.09					1.00	0.90	2.75	1.13	-----	Vehicle	2.75	-0.08	-----	Vehicle	16.32	0.81	2	10.06	5	73.85	92.32	1	506.49034	506.5	**205.67**	**342.78**	**2843.14**	**4738.57**
	U_{14} - L_{14}	0.70	0.70	0.85	0.85	-0.60	-0.60					1.00	0.90	0.70	0.76	-----	Vehicle	0.70	-0.54	-----	Vehicle	15.38	0.84	2	9.15	5	73.85	92.32	1	494.54698	494.5	**299.23**	**498.71**	**422.76**	**704.61**
	U_{15} - L_{15}	-1.74	-1.74	0.18	0.18	-1.03	-1.03					1.00	0.90	-1.74	0.16	-----	Vehicle	-1.74	-0.93	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**980.46**	**1634.11**	**165.28**	**275.47**
	U_{16} - L_{16}	-1.62	-1.62	0.27	0.27	-1.19	-1.19					1.00	0.90	-1.62	0.25	-----	Vehicle	-1.62	-1.07	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	**756.20**	**1260.34**	**172.45**	**287.41**
	U_{17} - L_{17}	-2.53	-2.53	0.24	0.24	-1.84	-1.84					1.00	0.90	-2.53	0.21	-----	Vehicle	-2.53	-1.65	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**800.93**	**1334.88**	**101.98**	**169.97**
	U_{18} - L_{18}	-2.65	-2.65	0.23	0.23	-1.83	-1.83					1.00	0.90	-2.65	0.21	-----	Vehicle	-2.65	-1.64	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**740.04**	**1233.40**	**92.95**	**154.91**
	U_{19} - L_{19}	-1.79	-1.79	0.10	0.10	-1.11	-1.11					1.00	0.90	-1.79	0.09	-----	Vehicle	-1.79	-1.00	-----	Vehicle	15.75	0.50	2	15.75	5	73.85	92.32	1	301.455	301.5	**1497.92**	**2496.53**	**138.45**	**230.75**
	U_{20} - L_{20}	-1.24	-1.24	0.09	0.09	-0.99	-0.99					1.00	0.90	-1.24	0.08	-----	Vehicle	-1.24	-0.89	-----	Vehicle	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	**1489.06**	**2481.77**	**139.15**	**231.92**
	U_{21} - L_{21}	-0.83	-0.83	0.06	0.06	-1.00	-1.00					1.00	0.90	-0.83	0.05	-----	Vehicle	-0.83	-0.90	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**2194.33**	**3657.21**	**126.04**	**210.06**
	U_{22} - L_{22}	-0.04	-0.04	0.19	0.19	-0.25	-0.25					1.00	0.90	-0.04	0.17	-----	Vehicle	-0.04	-0.23	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**656.70**	**1094.50**	**502.74**	**837.90**
	U_{23} - L_{23}	0.80	0.80	0.89	0.89	-0.10	-0.10					1.00	0.90	0.80	0.80	-----	Vehicle	0.80	-0.09	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**141.62**	**236.03**	**1272.50**	**2120.84**
	U_{24} - L_{24}	1.40	1.40	1.02	1.02	-0.13	-0.13					1.00	0.90	1.40	0.92	-----	Vehicle	1.40	-0.12	-----	Vehicle	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	**135.90**	**226.50**	**1077.49**	**1795.81**
	U_{25} - L_{25}	1.60	1.60	1.33	1.33	-0.17	-0.17					1.00	0.90	1.60	1.20	-----	Vehicle	1.60	-0.16	-----	Vehicle	15.75	0.50	2	15.75	5	73.85	92.32	1	301.455	301.5	**115.35**	**192.25**	**894.57**	**1490.95**
	U_{26} - L_{26}	2.43	2.43	1.98	1.98	-0.32	-0.32					1.00	0.90	2.43	1.78	-----	Vehicle	2.43	-0.29	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**85.79**	**142.98**	**534.02**	**890.03**
	U_{27} - L_{27}	2.17	2.17	2.05	2.05	-0.28	-0.28					1.00	0.90	2.17	1.84	-----	Vehicle	2.17	-0.25	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**91.64**	**152.73**	**679.91**	**1133.19**
	U_{28} - L_{28}	1.53	1.53	1.48	1.48	-0.29	-0.29					1.00	0.90	1.53	1.33	-----	Vehicle	1.53	-0.26	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	**138.39**	**230.66**	**706.96**	**1178.26**
	U_{29} - L_{29}	1.55	1.55	1.25	1.25	-0.11	-0.11					1.00	0.90	1.55	1.13	-----	Vehicle	1.55	-0.10	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**135.97**	**226.62**	**1626.70**	**2711.17**
	U_{30} - L_{30}	-0.10	-0.10	0.73	0.73	-0.67	-0.67					1.00	0.90	-0.10	0.66	-----	Vehicle	-0.10	-0.60	-----	Vehicle	15.38	0.84	2	9.15	5	73.85	92.32	1	494.54698	494.5	**348.46**	**580.76**	**381.28**	**635.46**
	U_{31} - L_{31}	-1.79	-1.79	0.15	0.15	-1.11	-1.11					1.00	0.90	-1.79	0.14	-----	Vehicle	-1.79	-0.99	-----	Vehicle	16.32	0.81	2	10.06	5	73.85	92.32	1	506.49034	506.5	**1694.36**	**2823.93**	**233.98**	**389.96**
	U_{32} - L_{32}	-1.78	-1.78	0.20	0.20	-1.17	-1.17					1.00	0.90	-1.78	0.18	-----	Vehicle	-1.78	-1.06	-----	Vehicle	16.48	0.90	2	9.13	5	73.85	92.32	1	569.38897	569.4	**1465.91**	**2443.18**	**247.71**	**412.84**
	U_{33} - L_{33}	-2.46	-2.46	0.10	0.10	-1.38	-1.38					1.00	0.90	-2.46	0.09	-----	Vehicle	-2.46	-1.24	-----	Vehicle	16.48	0.81	2	10.15	5	73.85	92.32	1	511.96897	512.0	**2564.93**	**4274.89**	**189.75**	**316.25**
	U_{34} - L_{34}	-2.82	-2.82	0.05	0.05	-1.67	-1.67					1.00	0.90	-2.82	0.05	-----	Vehicle	-2.82	-1.51	-----	Vehicle	16.48	0.81	2	10.15	5	73.85	92.32	1	511.96897	512.0	**5184.87**	**8641.44**	**155.72**	**259.53**
	U_{35} - L_{35}	-3.37	-3.37	0.00	0.00	-1.93	-1.93					1.00	0.90	-3.37	-----	-----	-----	-3.37	-1.74	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	-----	-----	**105.52**	**175.87**
	U_{36} - L_{36}	-1.93	-1.93	0.00	0.00	-1.49	-1.49					1.00	0.90	-1.93	-----	-----	-----	-1.93	-1.34	-----	Vehicle	15.75	0.44	2	18.00	5	73.85	92.32	1	263.77313	263.8	-----	-----	**90.04**	**150.07**
	U_{37} - L_{37}	-0.91	-0.91	0.00	0.00	-0.41	-0.41					1.00	0.90	-0.91	-----	-----	-----	-0.91	-0.37	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	-----	-----	**308.33**	**513.89**
	U_{38} - L_{38}	-0.45	-0.45	0.45	0.45	-0.36	-0.36					1.00	0.90	-0.45	0.41	-----	Vehicle	-0.45	-0.32	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**280.39**	**467.32**	**354.11**	**590.18**
	U_{39} - L_{39}	0.16	0.16	0.71	0.71	-0.39	-0.39					1.00	0.90	0.16	0.64	-----	Vehicle	0.16	-0.35	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**178.32**	**297.20**	**326.87**	**544.78**
	U_{40} - L_{40}	0.80	0.80	1.09	1.09	-0.38	-0.38					1.00	0.90	0.80	0.98	-----	Vehicle	0.80	-0.34	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**116.09**	**193.48**	**333.99**	**556.64**
	U_{41} - L_{41}	1.35	1.35	1.16	1.16	-0.32	-0.32					1.00	0.90	1.35	1.05	-----	Vehicle	1.35	-0.29	-----	Vehicle	16.32	0.53	2	15.43	5	73.85	92.32	1	330.48196	330.5	**145.07**	**241.79**	**537.48**	**895.79**
	U_{42} - L_{42}	2.23	2.23	1.78	1.78	-0.42	-0.42					1.00	0.90	2.23	1.60	-----	Vehicle	2.23	-0.38	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**95.51**	**159.18**	**409.68**	**682.81**
	U_{43} - L_{43}	2.14	2.14	1.66	1.66	-0.31	-0.31					1.00	0.90	2.14	1.49	-----	Vehicle	2.14	-0.28	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	**123.68**	**206.14**	**667.35**	**1112.24**
	U_{44} - L_{44}	1.70	1.70	0.77	0.77	-0.15	-0.15					1.00	0.90	1.70	0.69	-----	Vehicle	1.70	-0.14	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	**265.87**	**443.12**	**1363.49**	**2272.48**
Structure 3	U_0 - L_0	-1.87	-1.87	0.07	0.07	-0.81	-0.81					1.00	0.90	-1.87	0.06	-----	Vehicle	-1.87	-0.73	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**2641.36**	**4402.27**	**232.00**	**386.67**
	U_1 - L_1	-2.09	-2.09	0.11	0.11	-0.95	-0.95					1.00	0.90	-2.09	0.10	-----	Vehicle	-2.09	-0.86	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**1684.31**	**2807.19**	**196.99**	**328.32**
	U_2 - L_2	-2.61	-2.61	0.17	0.17	-1.27	-1.27					1.00	0.90	-2.61	0.16	-----	Vehicle	-2.61	-1.15	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**934.23**	**1557.05**	**124.14**	**206.89**
	U_3 - L_3	-1.48	-1.48	0.15	0.15	-0.88	-0.88					1.00	0.90	-1.48	0.13	-----	Vehicle	-1.48	-0.79	-----	Vehicle	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	**1070.10**	**1783.50**	**174.87**	**291.45**
	U_4 - L_4	-1.08	-1.08	0.20	0.20	-0.87	-0.87					1.00	0.90	-1.08	0.18	-----	Vehicle	-1.08	-0.78	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**640.38**	**1067.31**	**145.49**	**242.49**
	U_5 - L_5	-0.23	-0.23	0.23	0.23	-0.99	-0.99					1.00	0.90	-0.23	0.20	-----	Vehicle	-0.23	-0.89	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**558.91**	**931.51**	**128.23**	**213.71**
	U_6 - L_6	0.90	0.90	0.32	0.32	-0.01	-0.01					1.00	0.90	0.90	0.29	-----	Vehicle	0.90	-0.01	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**391.68**	**652.80**	**18187.67**	**30312.78**
	U_7 - L_7	1.97	1.97	1.49	1.49	0.00	0.00					1.00	0.90	1.97	1.34	-----	Vehicle	1.97	-----	-----	-----	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	**92.82**	**154.69**	-----	-----
	U_8 - L_8	3.44	3.44	1.91	1.91	0.00	0.00					1.00	0.90	3.44	1.72	-----	Vehicle	3.44	-----	-----	-----	16.25	0.50	2	16.25	5	73.85	92.32	1	311.025	311.0	**82.27**	**137.11**	-----	-----
	U_9 - L_9	4.72	4.72	2.73	2.73	0.00	0.00					1.00	0.90	4.72	2.46	-----	Vehicle	4.72	0.00	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**68.08**	**113.46**	**48019.53**	**80032.56**
	U_{10} - L_{10}	3.92	3.92	2.14	2.14	-0.07	-0.07					1.00	0.90	3.92	1.92	-----	Vehicle	3.92	-0.06	-----	Vehicle	16.16	0.83	2	9.75	5	73.85	92.32	1	512.74682	512.7	**121.82**	**203.04**	**3963.56**	**6605.93**
	U_{11} - L_{11}	4.53	4.53	2.22	2.22	-0.07	-0.07

Columbia Parkway (HAM-471-0025)
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

			Member Forces from STAAD												Maximum Positive Shear				Minimum Negative Shear												Shear Force Rating			
			D		LL_{max}		LL_{min}		Pedestrian $Load_{max}$		Pedestrian $Load_{min}$																				Positive Shear Member		Negative Shear Member	
	Location	Member	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Impact (1+I)	Lane Reduction	Dead (kips)	LL & Impact & Lane Reduct. (kips)	Pedestrian Load & Impact	Load Factor Groups &	Dead (kips)	LL & Impact & Lane Reduct.	Pedestrian Load & Impact	Load Factor Groups &	Depth of Web (inches)	Thickness of Web (inches	Number of Webs	D/t_W	k	6000 sqrt(k) sqrt(Fy)	7500 sqrt(k) sqrt(Fy)	C	V_P (kips)	V_U (kips)	Inventory RF	Operating RF	Inventory RF	Operating RF
North Truss - Diagonals	Structure 1	U_0 - L_1	-0.26	-0.76	0.11	0.11	-0.37	-0.37					1.00	0.90	-0.26	0.10	-----	Vehicle	-0.76	-0.34	-----	Vehicle	10.00	0.31	2	16.00	5	73.85	92.32	1	119.625	119.6	**554.20**	**923.67**	**162.67**	**271.12**
		U_1 - L_2	0.21	-0.09	0.08	0.08	-0.18	-0.18					1.00	0.90	0.21	0.07	-----	Vehicle	-0.09	-0.16	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1525.01**	**2541.68**	**715.59**	**1192.65**
		U_2 - L_3	0.24	-0.07	0.10	0.10	-0.16	-0.16					1.00	0.90	0.24	0.09	-----	Vehicle	-0.07	-0.15	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1216.91**	**2028.19**	**781.94**	**1303.23**
		U_3 - L_4	0.40	0.09	0.07	0.07	-0.01	-0.01					1.00	0.90	0.40	0.06	-----	Vehicle	0.09	0.00	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1832.57**	**3054.29**	**25355.40**	**42259.00**
		U_4 - L_4	-0.25	-0.59	0.00	0.00	-0.24	-0.24					1.00	0.90	-0.25	-----	-----	-----	-0.59	-0.22	-----	Vehicle	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	-----	-----	**630.25**	**1050.42**
		U_4 - L_5	-1.06	-1.52	0.00	0.00	-0.73	-0.73					1.00	0.90	-1.06	-----	-----	-----	-1.52	-0.65	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	-----	-----	**219.14**	**365.23**
		U_5 - L_6	-1.31	-1.77	0.01	0.01	-0.89	-0.89					1.00	0.90	-1.31	0.01	-----	Vehicle	-1.77	-0.80	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**13396.52**	**22327.53**	**178.32**	**297.20**
		U_6 - L_7	-0.76	-1.25	0.02	0.02	-0.54	-0.54					1.00	0.90	-0.76	0.02	-----	Vehicle	-1.25	-0.49	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**7637.57**	**12729.28**	**292.92**	**488.20**
		U_7 - L_9	-0.94	-1.86	0.07	0.07	-0.47	-0.47					1.00	0.90	-0.94	0.06	-----	Vehicle	-1.86	-0.43	-----	Vehicle	16.25	0.63	2	13.00	5	73.85	92.32	1	388.78125	388.8	**2857.17**	**4761.94**	**418.89**	**698.15**
		U_8 - L_{10}	-1.58	-2.42	0.07	0.07	-0.82	-0.82					1.00	0.90	-1.58	0.06	-----	Vehicle	-2.42	-0.74	-----	Vehicle	16.25	0.63	2	13.00	5	73.85	92.32	1	388.78125	388.8	**2822.91**	**4704.84**	**241.47**	**402.45**
		U_{10} - L_{11}	-1.35	-2.21	0.05	0.05	-0.62	-0.62					1.00	0.90	-1.35	0.04	-----	Vehicle	-2.21	-0.56	-----	Vehicle	16.25	0.50	2	16.25	5	73.85	92.32	1	311.025	311.0	**3564.50**	**5940.84**	**255.71**	**426.19**
		U_{11} - L_{12}	-1.02	-1.50	0.03	0.03	-0.63	-0.63					1.00	0.90	-1.02	0.03	-----	Vehicle	-1.50	-0.57	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**6771.93**	**11286.56**	**299.25**	**498.76**
		U_{12} - L_{13}	-0.89	-1.60	0.01	0.01	-0.57	-0.57					1.00	0.90	-0.89	0.01	-----	Vehicle	-1.60	-0.51	-----	Vehicle	16.00	0.44	2	18.29	5	73.85	92.32	1	267.96	268.0	**12546.07**	**20910.11**	**238.37**	**397.28**
		U_{13} - L_{14}	-0.18	-0.51	0.00	0.00	-0.22	-0.22					1.00	0.90	-0.18	-----	-----	-----	-0.51	-0.20	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	-----	-----	**564.18**	**940.30**
		U_{15} - L_{14}	0.39	0.05	0.07	0.07	-0.06	-0.06					1.00	0.90	0.39	0.06	-----	Vehicle	0.05	-0.05	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1781.12**	**2968.54**	**2185.39**	**3642.31**
		U_{16} - L_{15}	-0.16	-0.50	0.08	0.08	-0.28	-0.28					1.00	0.90	-0.16	0.07	-----	Vehicle	-0.50	-0.25	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1625.90**	**2709.84**	**456.25**	**760.42**
		U_{17} - L_{16}	-0.37	-0.76	0.08	0.08	-0.42	-0.42					1.00	0.90	-0.37	0.07	-----	Vehicle	-0.76	-0.38	-----	Vehicle	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	**1883.21**	**3138.69**	**363.28**	**605.47**
		U_{18} - L_{17}	-1.43	-1.90	0.11	0.11	-0.77	-0.77					1.00	0.90	-1.43	0.10	-----	Vehicle	-1.90	-0.69	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1410.86**	**2351.43**	**206.00**	**343.33**
		U_{19} - L_{18}	-1.43	-1.96	0.09	0.09	-0.77	-0.77					1.00	0.90	-1.43	0.08	-----	Vehicle	-1.96	-0.69	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**1915.05**	**3191.74**	**221.19**	**368.65**
		U_{20} - L_{19}	-0.81	-1.39	0.03	0.03	-0.33	-0.33					1.00	0.90	-0.81	0.03	-----	Vehicle	-1.39	-0.30	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**5546.39**	**9243.99**	**519.74**	**866.23**
	Structure 2	U_0 - L_1	-1.46	-2.01	0.13	0.13	-0.77	-0.77					1.00	0.90	-1.46	0.12	-----	Vehicle	-2.01	-0.70	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**1417.21**	**2362.01**	**242.68**	**404.46**
		U_1 - L_2	-1.39	-1.93	0.17	0.17	-0.77	-0.77					1.00	0.90	-1.39	0.15	-----	Vehicle	-1.93	-0.69	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**1110.30**	**1850.50**	**243.69**	**406.15**
		U_2 - L_3	-1.30	-1.78	0.20	0.20	-0.78	-0.78					1.00	0.90	-1.30	0.18	-----	Vehicle	-1.78	-0.70	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**820.18**	**1366.96**	**202.94**	**338.24**
		U_3 - L_4	-0.57	-0.98	0.15	0.15	-0.49	-0.49					1.00	0.90	-0.57	0.14	-----	Vehicle	-0.98	-0.44	-----	Vehicle	16.32	0.53	2	15.43	5	73.85	92.32	1	330.48196	330.5	**1132.40**	**1887.33**	**347.37**	**578.96**
		U_4 - L_5	-0.10	-0.45	0.13	0.13	-0.33	-0.33					1.00	0.90	-0.10	0.11	-----	Vehicle	-0.45	-0.30	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**998.30**	**1663.83**	**381.93**	**636.54**
		U_5 - L_6	0.26	-0.08	0.13	0.13	-0.24	-0.24					1.00	0.90	0.26	0.12	-----	Vehicle	-0.08	-0.22	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**951.44**	**1585.73**	**529.97**	**883.29**
		U_6 - L_7	0.47	0.08	0.10	0.10	-0.08	-0.08					1.00	0.90	0.47	0.09	-----	Vehicle	0.08	-0.07	-----	Vehicle	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	**1446.14**	**2410.24**	**1718.46**	**2864.09**
		U_8 - L_7	-0.31	-1.10	0.00	0.00	-0.25	-0.25					1.00	0.90	-0.31	-----	-----	-----	-1.10	-0.23	-----	Vehicle	15.75	0.38	2	21.00	5	73.85	92.32	1	226.09125	226.1	-----	-----	**453.60**	**755.99**
		U_8 - L_8	-1.36	-1.87	0.00	0.00	-0.71	-0.71					1.00	0.90	-1.36	-----	-----	-----	-1.87	-0.64	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	-----	-----	**241.01**	**401.68**
		U_{10} - L_9	-1.34	-1.84	0.00	0.00	-0.77	-0.77					1.00	0.90	-1.34	-----	-----	-----	-1.84	-0.69	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	-----	-----	**243.46**	**405.76**
		U_{11} - L_{10}	-1.60	-2.16	0.01	0.01	-0.88	-0.88					1.00	0.90	-1.60	0.01	-----	Vehicle	-2.16	-0.80	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	**15937.43**	**26562.38**	**231.54**	**385.90**
		U_{12} - L_{11}	-1.61	-2.20	0.05	0.05	-0.88	-0.88					1.00	0.90	-1.61	0.04	-----	Vehicle	-2.20	-0.79	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	**4604.22**	**7673.70**	**232.03**	**386.72**
		U_{13} - L_{12}	-1.62	-2.23	0.13	0.13	-0.92	-0.92					1.00	0.90	-1.62	0.12	-----	Vehicle	-2.23	-0.82	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**1439.50**	**2399.17**	**204.63**	**341.06**
		U_{14} - L_{13}	-0.88	-1.51	0.15	0.15	-0.61	-0.61					1.00	0.90	-0.88	0.13	-----	Vehicle	-1.51	-0.55	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**1280.53**	**2134.22**	**306.07**	**510.12**
		U_{14} - L_{15}	-0.27	-0.82	0.13	0.13	-0.35	-0.35					1.00	0.90	-0.27	0.11	-----	Vehicle	-0.82	-0.31	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1260.34**	**2100.57**	**457.87**	**763.11**
		U_{15} - L_{16}	-0.82	-1.35	0.18	0.18	-0.71	-0.71					1.00	0.90	-0.82	0.16	-----	Vehicle	-1.35	-0.64	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**901.31**	**1502.18**	**224.55**	**374.25**
		U_{16} - L_{17}	-0.97	-1.52	0.16	0.16	-0.89	-0.89					1.00	0.90	-0.97	0.14	-----	Vehicle	-1.52	-0.80	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**1082.07**	**1803.45**	**191.44**	**319.07**
		U_{17} - L_{18}	-1.04	-1.53	0.14	0.14	-0.91	-0.91					1.00	0.90	-1.04	0.13	-----	Vehicle	-1.53	-0.82	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1147.00**	**1911.67**	**175.15**	**291.92**
		U_{18} - L_{19}	-0.98	-1.46	0.12	0.12	-0.72	-0.72					1.00	0.90	-0.98	0.11	-----	Vehicle	-1.46	-0.64	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1372.12**	**2286.86**	**222.26**	**370.43**
		U_{19} - L_{20}	-0.28	-1.03	0.07	0.07	-0.49	-0.49					1.00	0.90	-0.28	0.06	-----	Vehicle	-1.03	-0.44	-----	Vehicle	15.75	0.38	2	21.00	5	73.85	92.32	1	226.09125	226.1	**1759.56**	**2932.60**	**236.18**	**393.64**
		U_{20} - L_{21}	-0.23	-0.57	0.04	0.04	-0.34	-0.34					1.00	0.90	-0.23	0.03	-----	Vehicle	-0.57	-0.30	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**3428.91**	**5714.85**	**376.00**	**626.67**
		U_{21} - L_{22}	0.04	-0.30	0.02	0.02	-0.16	-0.16					1.00	0.90	0.04	0.02	-----	Vehicle	-0.30	-0.14	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**7038.54**	**11730.90**	**805.84**	**1343.07**
		U_{23} - L_{22}	0.07	-0.27	0.04	0.04	-0.11	-0.11					1.00	0.90	0.07	0.04	-----	Vehicle	-0.27	-0.10	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**2878.90**	**4798.17**	**1160.87**	**1934.79**
		U_{24} - L_{23}	-0.17	-0.52	0.03	0.03	-0.28	-0.28					1.00	0.90	-0.17	0.02	-----	Vehicle	-0.52	-0.25	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**5073.24**	**8455.40**	**448.12**	**746.87**
		U_{25} - L_{24}	-0.29	-1.06	0.03	0.03	-0.47	-0.47					1.00	0.90	-0.29	0.03	-----	Vehicle	-1.06	-0.42	-----	Vehicle	15.75	0.38	2	21.00	5	73.85	92.32	1	226.09125	226.1	**3629.38**	**6048.97**	**247.29**	**412.15**
		U_{26} - L_{25}	-0.69	-1.19	0.07	0.07	-0.71	-0.71					1.00	0.90	-0.69	0.06	-----	Vehicle	-1.19	-0.64	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**2258.41**	**3764.01**	**223.45**	**372.41**
		U_{27} - L_{26}	-0.78	-1.29	0.08	0.08	-0.87	-0.87					1.00	0.90	-0.78	0.07	-----	Vehicle	-1.29	-0.78	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1932.60**	**3221.01**	**182.58**	**304.30**
		U_{28} - L_{27}	-0.72	-1.28	0.10	0.10	-0.94	-0.94					1.00	0.90	-0.72	0.09	-----	Vehicle	-1.28	-0.84	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**1753.86**	**2923.10**	**182.02**	**303.36**
		U_{29} - L_{28}	-0.68	-1.22	0.11	0.11	-0.82	-0.82					1.00	0.90	-0.68	0.10	-----	Vehicle	-1.22	-0.73	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1431.57**	**2385.95**	**194.94**	**324.90**
		U_{30} - L_{29}	-0.22	-0.79	0.10	0.10	-0.43	-0.43					1.00	0.90	-0.22	0.09	-----	Vehicle	-0.79	-0.39	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1568.96**	**2614.94**	**372.34**	**620.56**
		U_{30} - L_{31}	-0.49	-1.12	0.13	0.13	-0.45	-0.45					1.00	0.90	-0.49	0.12	-----	Vehicle	-1.12	-0.40	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**1433.76**	**2389.60**	**421.94**	**703.24**
		U_{31} - L_{32}	-1.09	-1.69	0.16	0.16	-0.83	-0.83					1.00	0.90	-1.09	0.14	-----	Vehicle	-1.69	-0.75	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**1178.02**	**1963.37**	**225.73**	**376.21**
		U_{32} - L_{33}	-1.17	-1.76	0.11	0.11	-0.91	-0.91					1.00	0.90	-1.17	0.10	-----	Vehicle	-1.76	-0.82	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	**1933.66**	**3222.77**	**226.21**	**377.02**
		U_{33} - L_{34}	-1.34	-1.87	0.08	0.08	-0.82	-0.82					1.00	0.90	-1.34	0.07	-----	Vehicle	-1.87	-0.74	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	**2555.72**	**4259.53**	**248.93**	**414.89**
		U_{34} - L_{35}	-1.13	-1.62	0.04	0.04	-0.75	-0.75					1.00	0.90	-1.13	0.03	-----	Vehicle	-1.62	-0.68	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**5419.62**	**9032.70**	**249.47**	**415.79**
		U_{35} - L_{36}	-1.11	-1.61	0.00	0.00	-0.79	-0.79					1.00	0.90	-1.11	0.00	-----	Vehicle	-1.61	-0.71	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**86069.09**	**143448.48**	**216.43**	**360.71**
		U_{36} - L_{37}	-0.27	-1.04	0.00	0.00	-0.35	-0.35					1.00	0.90	-0.27	-----	-----	-----	-----	-1.04	-0.32	-----	15.75	0.38	2	21.00	5	73.85	92.32	1	226.09125	226.1	-----	-----	**327.41**	**545.68**
		U_{38} - L_{37}	0.40	0.00	0.11	0.11	-0.01	-0.01					1.00	0.90	0.40	0.10	-----	Vehicle	0.00	-0.01	-----	Vehicle	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	**1274.08**	**2123.47**	**15460.54**	**25767.57**
		U_{39} - L_{38}	0.27	-0.08	0.12	0.12	-0.16	-0.16					1.00	0.90	0.27	0.11	-----	Vehicle	-0.08	-0.14	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1020.45**	**1700.75**	**786.74**	**1311.23**
		U_{40} - L_{39}	0.01	-0.35	0.12	0.12	-0.30	-0.30					1.00	0.90	0.01	0.11	-----	Vehicle	-0.35	-0.27	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1047.21**	**1745.35**	**418.82**	**698.03**
		U_{41} - L_{40}	-0.30	-0.73	0.15	0.15	-0.49	-0.49					1.00	0.90	-0.30	0.14	-----	Vehicle	-0.73	-0.44	-----	Vehicle	16.32	0.53	2	15.43	5	73.85	92.32	1	330.48196	330.5	**1123.71**	**1872.85**	**342.09**	**570.16**
		U_{42} - L_{41}	-0.81	-1.29	0.20	0.20	-0.84	-0.84					1.00	0.90	-0.81	0.18	-----	Vehicle	-1.29	-0.75	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**794.17**	**1323.62**	**190.45**	**317.41**
		U_{43} - L_{42}	-0.95	-1.50	0.19	0.19	-0.95	-0.95					1.00	0.90	-0.95	0.17	-----	Vehicle	-1.50	-0.85	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**1019.16**	**1698.60**	**198.66**	**331.10**
		U_{44} - L_{43}	-1.00	-1.57	0.09	0.09	-0.44	-0.44					1.00	0.90	-1.00	0.08	-----	Vehicle	-1.57	-0.39	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**2179.31**	**3632.19**	**430.93**	**718.22**
	Structure 3	U_0 - L_1	-1.06	-1.63	0.05	0.05	-0.65	-0.65					1.00	0.90	-1.06	0.04	-----	Vehicle	-1.63	-0.58	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**3585.61**	**5976.02**	**264.05**	**440.08**
		U_1 - L_2	-1.16	-1.67	0.07	0.07	-0.59	-0.59					1.00	0.90	-1.16	0.06	-----	Vehicle	-1.67	-0.53	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**2459.62**	**4099.37**	**288.13**	**480.21**
		U_2 - L_3	-1.32	-1.78	0.10	0.10	-0.71	-0.71					1.00	0.90	-1.32	0.09	-----	Vehicle	-1.78	-0.63	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1640.45**	**2734.09**	**225.10**	**375.17**
		U_3 - L_4	-0.36	-0.74	0.08	0.08	-0.41	-0.41					1.00	0.90	-0.36	0.07	-----	Vehicle	-0.74	-0.37	-----	Vehicle	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	**2031.75**	**3386.24**	**376.68**	**627.80**
		U_4 - L_5	-0.13	-0.47	0.08	0.08	-0.31	-0.31					1.00	0.90	-0.13	0.07	-----	Vehicle	-0.47	-0.28	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1668.49**	**2780.81**	**405.14**	**675.23**
		U_5 - L_6	0.35	0.02	0.07	0.07	-0.12	-0.12					1.00	0.90	0.35	0.06	-----	Vehicle	0.02	-0.10	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1945.93**	**3243.22**	**1102.02**	**1836.70**
		U_7 - L_6	-0.07	-0.41	0.00	0.00	-0.17	-0.17					1.00	0.90	-0.07	-----	-----	-----	-----	-0.41	-0.15	-----	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	-----	-----	**766.31**	**1277.19**
		U_8 - L_7	-0.58	-1.31	0.00	0.00	-0.52	-0.52					1.00	0.90	-0.58	-----	-----	-----	-----	-1.31	-0.47	-----	16.00	0.44	2	18.29	5	73.85	92.32	1	267.96	268.0	-----	-----	**264.10**	**440.17**
		U_9 - L_8	-0.75	-1.24	0.00	0.00	-0.62	-0.62					1.00	0.90	-0.75	0.00	-----	Vehicle	-1.24	-0.56	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**94714.74**	**157857.89**	**301.93**	**503.22**
		U_{10} - L_9	-0.89	-1.77	0.01	0.01	-0.66	-0.66					1.00	0.90	-0.89	0.01	-----	Vehicle	-1.77	-0.60	-----	Vehicle	16.25	0.50	2	16.25	5	73.85	92.32	1	311.025	311.0	**16009.13**	**26681.89**	**239.15**	**398.58**
		U_{11} - L_{10}	-1.27	-2.15	0.02	0.02	-0.90	-0.90					1.00	0.90	-1.27	0.02	-----	Vehicle	-2.15	-0.81	-----	Vehicle	16.25	0.63	2	13.00	5	73.85	92.32	1	388.78125	388.8	**8705.17**	**14508.62**	**218.96**	**364.94**
		U_{12} - L_{11}	-0.73	-1.69	0.05	0.05	-0.57	-0.57					1.00	0.90	-0.73	0.05	-----	Vehicle	-1.69	-0.52	-----	Vehicle	16.25	0.63	2	13.00	5	73.85	92.32	1	388.78125	388.8	**3701.19**	**6168.65**	**345.38**	**575.64**
		U_{12} - L_{13}	-0.33	-0.81	0.05	0.05	-0.45	-0.45	

Columbia Parkway (HAM-471-0025)
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

			Member Forces from STAAD												Maximum Positive Shear				Minimum Negative Shear												Shear Force Rating			
			D		LL_{max}		LL_{min}		Pedestrian $Load_{max}$		Pedestrian $Load_{min}$																				Positive Shear Member		Negative Shear Member	
Location		Member	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Impact (1+I)	Lane Reduction	Dead (kips)	LL & Impact & Lane Reduct. (kips)	Pedestrian Load & Impact	Load Factor Groups &	Dead (kips)	LL & Impact & Lane Reduct.	Pedestrian Load & Impact	Load Factor Groups &	Depth of Web (inches)	Thickness of Web (inches	Number of Webs	D/t_W	k	6000 sqrt(k) sqrt(Fy)	7500 sqrt(k) sqrt(Fy)	C	V_P (kips)	V_U (kips)	Inventory RF	Operating RF	Inventory RF	Operating RF
Center Truss - Upper Chord	Structure 1	$U_0 - U_1$	4.56	-6.52	1.28	1.28	-0.52	-0.52					1.00	0.75	4.56	0.96	-----	Vehicle	-6.52	-0.39	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	93.92	156.53	229.57	382.62
		$U_1 - U_2$	3.38	-4.04	0.95	0.95	-0.37	-0.37					1.00	0.75	3.38	0.71	-----	Vehicle	-4.04	-0.28	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	127.20	212.01	322.03	536.72
		$U_2 - U_3$	2.36	-7.47	0.40	0.40	-0.48	-0.48					1.00	0.75	2.36	0.30	-----	Vehicle	-7.47	-0.36	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	307.53	512.55	246.23	410.38
		$U_3 - U_4$	2.44	-4.45	1.29	1.29	-0.18	-0.18					1.00	0.75	2.44	0.97	-----	Vehicle	-4.45	-0.13	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	94.50	157.51	686.38	1143.97
		$U_4 - U_5$	2.34	-4.17	0.00	0.00	-2.20	-2.20					1.00	0.75	2.34	-----	-----	-----	-4.17	-1.65	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	-----	-----	54.72	91.21
		$U_5 - U_6$	4.24	-6.30	0.00	0.00	-1.30	-1.30					1.00	0.75	4.24	-----	-----	-----	-6.30	-0.98	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	-----	-----	91.12	151.86
		$U_6 - U_7$	6.32	-5.06	0.16	0.16	-0.99	-0.99					1.00	0.75	6.32	0.12	-----	Vehicle	-5.06	-0.74	-----	Vehicle	14.00	0.75	2	9.33	5	73.85	92.32	1	401.94	401.9	1477.38	2462.30	246.25	410.42
		$U_7 - U_8$	-0.91	-13.50	0.00	0.00	-4.36	-4.36					1.00	0.75	-0.91	-----	-----	-----	-13.50	-3.27	-----	Vehicle	14.00	1.00	2	7.00	5	73.85	92.32	1	535.92	535.9	-----	-----	73.20	122.00
		$U_8 - U_9$	14.68	2.06	4.04	4.04	0.00	0.00					1.00	0.75	14.68	3.03	-----	Vehicle	2.06	-----	-----	-----	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	32.81	54.68	-----	-----
		$U_9 - U_{10}$	6.72	-5.99	0.91	0.91	-0.15	-0.15					1.00	0.75	6.72	0.68	-----	Vehicle	-5.99	-0.12	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	130.14	216.90	771.98	1286.63
		$U_{10} - U_{11}$	8.58	-2.74	1.88	1.88	0.00	0.00					1.00	0.75	8.58	1.41	-----	Vehicle	-2.74	-----	-----	-----	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	62.30	103.83	-----	-----
		$U_{11} - U_{12}$	6.93	-2.59	1.41	1.41	0.00	0.00					1.00	0.75	6.93	1.06	-----	Vehicle	-2.59	-----	-----	-----	14.00	0.50	2	14.00	5	73.85	92.32	1	267.96	268.0	113.26	188.77	-----	-----
		$U_{12} - U_{13}$	8.34	-7.12	1.00	1.00	0.00	0.00					1.00	0.75	8.34	0.75	-----	Vehicle	-7.12	-----	-----	-----	14.00	1.33	2	5.24	5	73.85	92.32	1	715.3575	715.4	433.12	721.86	-----	-----
		$U_{13} - U_{14}$	6.26	-2.33	3.04	3.04	0.00	0.00					1.00	0.75	6.26	2.28	-----	Vehicle	-2.33	-----	-----	-----	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	167.64	279.40	-----	-----
		$U_{14} - U_{15}$	3.31	-4.79	0.05	0.05	-2.59	-2.59					1.00	0.75	3.31	0.03	-----	Vehicle	-4.79	-1.94	-----	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	11392.38	18987.31	197.63	329.39
		$U_{15} - U_{16}$	9.98	-5.04	0.91	0.91	-0.40	-0.40					1.00	0.75	9.98	0.68	-----	Vehicle	-5.04	-0.30	-----	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	560.58	934.30	1281.39	2135.64
		$U_{16} - U_{17}$	2.83	-6.01	0.08	0.08	-1.58	-1.58					1.00	0.75	2.83	0.06	-----	Vehicle	-6.01	-1.19	-----	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	6256.59	10427.65	322.49	537.48
		$U_{17} - U_{18}$	6.87	-9.04	0.15	0.15	-1.32	-1.32					1.00	0.75	6.87	0.11	-----	Vehicle	-9.04	-0.99	-----	Vehicle	14.00	1.15	2	6.10	5	73.85	92.32	1	614.8725	614.9	2536.64	4227.73	281.39	468.98
		$U_{18} - U_{19}$	2.90	-6.82	0.09	0.09	-1.26	-1.26					1.00	0.75	2.90	0.06	-----	Vehicle	-6.82	-0.95	-----	Vehicle	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	1650.73	2751.22	109.84	183.06
		$U_{19} - U_{20}$	1.99	-7.35	0.23	0.23	-1.45	-1.45					1.00	0.75	1.99	0.18	-----	Vehicle	-7.35	-1.09	-----	Vehicle	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	609.80	1016.33	95.52	159.20
	Structure 2	$U_0 - U_1$	12.40	-3.78	1.76	1.76	-0.52	-0.52					1.00	0.75	12.40	1.32	-----	Vehicle	-3.78	-0.39	-----	Vehicle	17.00	0.38	2	22.67	5	73.85	92.32	1	244.035	244.0	79.87	133.12	284.08	473.47
		$U_1 - U_2$	8.38	-5.46	1.67	1.67	-0.41	-0.41					1.00	0.75	8.38	1.26	-----	Vehicle	-5.46	-0.31	-----	Vehicle	17.00	0.75	2	11.33	5	73.85	92.32	1	488.07	488.1	175.41	292.36	718.40	1197.34
		$U_2 - U_3$	8.24	-2.95	1.84	1.84	-0.48	-0.48					1.00	0.75	8.24	1.38	-----	Vehicle	-2.95	-0.36	-----	Vehicle	17.00	0.56	2	15.11	5	73.85	92.32	1	366.0525	366.1	118.84	198.07	465.35	775.58
		$U_3 - U_4$	7.92	-7.97	0.57	0.57	-0.27	-0.27					1.00	0.75	7.92	0.43	-----	Vehicle	-7.97	-0.20	-----	Vehicle	17.00	1.25	2	6.80	5	73.85	92.32	1	813.45	813.5	862.56	1437.61	1810.30	3017.17
		$U_4 - U_5$	5.54	-4.79	1.48	1.48	-0.38	-0.38					1.00	0.75	5.54	1.11	-----	Vehicle	-4.79	-0.28	-----	Vehicle	17.00	1.50	2	5.67	5	73.85	92.32	1	976.14	976.1	402.34	670.57	1591.65	2652.75
		$U_5 - U_6$	2.70	-7.57	0.00	0.00	-1.20	-1.20					1.00	0.75	2.70	-----	-----	-----	-7.57	-0.90	-----	Vehicle	17.00	1.50	2	5.67	5	73.85	92.32	1	976.14	976.1	-----	-----	494.72	824.53
		$U_6 - U_7$	5.85	-9.91	2.73	2.73	0.00	0.00					1.00	0.75	5.85	2.05	-----	Vehicle	-9.91	0.00	-----	Vehicle	17.00	1.25	2	6.80	5	73.85	92.32	1	813.45	813.5	181.58	302.64	164217.81	273696.34
		$U_7 - U_8$	8.61	-6.86	0.00	0.00	-3.00	-3.00					1.00	0.75	8.61	-----	-----	-----	-6.86	-2.25	-----	Vehicle	17.00	1.25	2	6.80	5	73.85	92.32	1	813.45	813.5	-----	-----	165.09	275.14
		$U_8 - U_9$	3.73	-10.69	0.42	0.42	-0.91	-0.91					1.00	0.75	3.73	0.31	-----	Vehicle	-10.69	-0.68	-----	Vehicle	17.00	1.06	2	8.00	5	73.85	92.32	1	691.4325	691.4	1010.81	1684.68	457.68	762.79
		$U_9 - U_{10}$	2.20	-9.32	0.00	0.00	-2.94	-2.94					1.00	0.75	2.20	-----	-----	-----	-9.32	-2.20	-----	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	-----	-----	57.16	95.26
		$U_{10} - U_{11}$	4.11	-10.14	0.25	0.25	-1.23	-1.23					1.00	0.75	4.11	0.18	-----	Vehicle	-10.14	-0.92	-----	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	701.71	1169.51	135.96	226.59
		$U_{11} - U_{12}$	3.90	-11.48	0.18	0.18	-3.46	-3.46					1.00	0.75	3.90	0.13	-----	Vehicle	-11.48	-2.59	-----	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	966.79	1611.32	48.04	80.06
		$U_{12} - U_{13}$	9.71	-7.93	0.92	0.92	-0.54	-0.54					1.00	0.75	9.71	0.69	-----	Vehicle	-7.93	-0.41	-----	Vehicle	17.00	0.94	2	9.07	5	73.85	92.32	1	610.0875	610.1	399.21	665.35	678.48	1130.80
		$U_{13} - U_{14}$	-10.77	-26.35	0.00	0.00	-8.32	-8.32					1.00	0.75	-10.77	-----	-----	-----	-26.35	-6.24	-----	Vehicle	17.00	1.31	2	6.48	5	73.85	92.32	1	854.1225	854.1	-----	-----	60.68	101.13
		$U_{14} - U_{15}$	23.41	7.84	7.13	7.13	-0.01	-0.01					1.00	0.75	23.41	5.35	-----	Vehicle	7.84	0.00	-----	Vehicle	17.00	1.31	2	6.48	5	73.85	92.32	1	854.1225	854.1	71.12	118.54	106376.85	177294.75
		$U_{15} - U_{16}$	7.06	-9.43	0.72	0.72	-0.48	-0.48					1.00	0.75	7.06	0.54	-----	Vehicle	-9.43	-0.36	-----	Vehicle	17.00	1.06	2	8.00	5	73.85	92.32	1	691.4325	691.4	586.38	977.30	870.73	1451.22
		$U_{16} - U_{17}$	8.63	-3.17	2.08	2.08	-0.19	-0.19					1.00	0.75	8.63	1.56	-----	Vehicle	-3.17	-0.14	-----	Vehicle	17.00	0.56	2	15.11	5	73.85	92.32	1	366.0525	366.1	104.83	174.72	1184.74	1974.57
		$U_{17} - U_{18}$	8.38	-5.41	2.71	2.71	-0.31	-0.31					1.00	0.75	8.38	2.03	-----	Vehicle	-5.41	-0.23	-----	Vehicle	17.00	0.38	2	22.67	5	73.85	92.32	1	244.035	244.0	52.90	88.17	471.99	786.65
		$U_{18} - U_{19}$	8.11	-4.42	1.54	1.54	-0.15	-0.15					1.00	0.75	8.11	1.16	-----	Vehicle	-4.42	-0.11	-----	Vehicle	17.00	0.38	2	22.67	5	73.85	92.32	1	244.035	244.0	93.18	155.31	990.80	1651.34
		$U_{19} - U_{20}$	5.79	-4.35	1.15	1.15	0.00	0.00					1.00	0.75	5.79	0.86	-----	Vehicle	-4.35	-----	-----	-----	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	147.94	246.56	-----	-----
	Structure 3	$U_0 - U_1$	8.84	-0.50	1.24	1.24	-0.19	-0.19					1.00	0.75	8.84	0.93	-----	Vehicle	-0.50	-0.14	-----	Vehicle	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	111.11	185.18	745.51	1242.51
		$U_1 - U_2$	5.80	-3.92	1.31	1.31	-0.15	-0.15					1.00	0.75	5.80	0.98	-----	Vehicle	-3.92	-0.11	-----	Vehicle	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	106.52	177.53	960.21	1600.35
		$U_2 - U_3$	8.91	-7.00	1.25	1.25	-0.16	-0.16					1.00	0.75	8.91	0.93	-----	Vehicle	-7.00	-0.12	-----	Vehicle	14.00	1.15	2	6.10	5	73.85	92.32	1	614.8725	614.9	298.19	496.99	2344.53	3907.55
		$U_3 - U_4$	5.49	-3.35	1.01	1.01	-0.12	-0.12					1.00	0.75	5.49	0.76	-----	Vehicle	-3.35	-0.09	-----	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	506.86	844.76	4236.61	7061.01
		$U_4 - U_5$	5.50	-9.53	0.43	0.43	-0.65	-0.65					1.00	0.75	5.50	0.32	-----	Vehicle	-9.53	-0.49	-----	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	1179.93	1966.56	779.85	1299.76
		$U_5 - U_6$	4.95	-3.15	2.66	2.66	-0.06	-0.06					1.00	0.75	4.95	1.99	-----	Vehicle	-3.15	-0.05	-----	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	192.60	320.99	8546.46	14244.10
		$U_6 - U_7$	2.39	-6.20	0.00	0.00	-3.16	-3.16					1.00	0.75	2.39	-----	-----	-----	-6.20	-2.37	-----	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	-----	-----	161.50	269.17
		$U_7 - U_8$	7.38	-8.07	0.00	0.00	-0.90	-0.90					1.00	0.75	7.38	-----	-----	-----	-8.07	-0.67	-----	Vehicle	14.00	1.33	2	5.24	5	73.85	92.32	1	715.3575	715.4	-----	-----	482.50	804.16
		$U_8 - U_9$	2.59	-6.93	0.00	0.00	-1.95	-1.95					1.00	0.75	2.59	-----	-----	-----	-6.93	-1.46	-----	Vehicle	14.00	0.50	2	14.00	5	73.85	92.32	1	267.96	268.0	-----	-----	81.68	136.13
		$U_9 - U_{10}$	2.81	-8.52	0.00	0.00	-2.03	-2.03					1.00	0.75	2.81	-----	-----	-----	-8.52	-1.52	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	-----	-----	57.62	96.04
		$U_{10} - U_{11}$	5.83	-6.88	0.16	0.16	-0.94	-0.94					1.00	0.75	5.83	0.12	-----	Vehicle	-6.88	-0.71	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	753.25	1255.41	125.71	209.52
		$U_{11} - U_{12}$	-2.18	-14.80	0.00	0.00	-4.25	-4.25					1.00	0.75	-2.18	-----	-----	-----	-14.80	-3.18	-----	Vehicle	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	-----	-----	31.20	52.00
		$U_{12} - U_{13}$	12.98	0.39	4.04	4.04	0.00	0.00					1.00	0.75	12.98	3.03	-----	Vehicle	0.39	-----	-----	-----	14.00	1.00	2	7.00	5	73.85	92.32	1	535.92	535.9	79.12	131.87	-----	-----
		$U_{13} - U_{14}$	4.87	-6.52	0.62	0.62	-0.16	-0.16					1.00	0.75	4.87	0.46	-----	Vehicle	-6.52	-0.12	-----	Vehicle	14.00	0.75	2	9.33	5	73.85	92.32	1	401.94	401.9	395.22	658.70	1562.15	2603.58
		$U_{14} - U_{15}$	6.18	-4.36	1.28	1.28	0.00	0.00					1.00	0.75	6.18	0.96	-----	Vehicle	-4.36	-----	-----	-----	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	92.47	154.11	-----	-----
		$U_{15} - U_{16}$	3.83	-2.68	2.06	2.06	0.00	0.00					1.00	0.75	3.83	1.55	-----	Vehicle	-2.68	-----	-----	-----	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	58.46	97.44	-----	-----
		$U_{16} - U_{17}$	4.74	-2.15	0.23	0.23	-1.26	-1.26					1.00	0.75	4.74	0.17	-----	Vehicle	-2.15	-0.95	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	523.50	872.50	96.71	161.19
		$U_{17} - U_{18}$	7.49	-2.35	0.79	0.79	-0.45	-0.45					1.00	0.75	7.49	0.59	-----	Vehicle	-2.35	-0.34	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	148.78	247.97	268.27	447.11
		$U_{18} - U_{19}$	3.74	-3.68	0.29	0.29	-1.45	-1.45					1.00	0.75	3.74	0.21	-----	Vehicle	-3.68	-1.09	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	421.96	703.27	83.09	138.48
		$U_{19} - U_{20}$	8.21	-2.87	0.70	0.70	-1.44	-1.44					1.00	0.75	8.21	0.53	-----	Vehicle	-2.87	-1.08	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	166.35	277.25	84.17	140.29

Columbia Parkway (HAM-471-0025)
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Location		Member	Member Forces from STAAD: D Start (kips)	D End (kips)	LL_{max} Start (kips)	LL_{max} End (kips)	LL_{min} Start (kips)	LL_{min} End (kips)	Pedestrian $Load_{max}$ Start (kips)	Pedestrian $Load_{max}$ End (kips)	Pedestrian $Load_{min}$ Start (kips)	Pedestrian $Load_{min}$ End (kips)	Impact (1+I)	Lane Reduction	Maximum Positive Shear: Dead (kips)	LL & Impact & Lane Reduct. (kips)	Pedestrian Load & Impact	Load Factor Groups &	Minimum Negative Shear: Dead (kips)	LL & Impact & Lane Reduct.	Pedestrian Load & Impact	Load Factor Groups &	Depth of Web (inches)	Thickness of Web (inches)	Number of Webs	D/t_W	k	6000 sqrt(k) sqrt(Fy)	7500 sqrt(k) sqrt(Fy)	C	V_P (kips)	V_U (kips)	Shear Force Rating: Positive Shear Member Inventory RF	Positive Shear Member Operating RF	Negative Shear Member Inventory RF	Negative Shear Member Operating RF
Center Truss - Lower Chord	Structure 1	L_0 - L_1	4.20	-2.36	1.18	1.18	-0.36	-0.36					1.00	0.75	4.20	0.89	-----	Vehicle	-2.36	-0.27	-----	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**116.83**	**194.72**	**388.44**	**647.40**
		L_1 - L_2	5.75	-2.53	0.81	0.81	-0.36	-0.36					1.00	0.75	5.75	0.60	-----	Vehicle	-2.53	-0.27	-----	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**169.65**	**282.75**	**382.75**	**637.92**
		L_2 - L_3	2.73	-3.85	0.43	0.43	-0.26	-0.26					1.00	0.75	2.73	0.32	-----	Vehicle	-3.85	-0.19	-----	Vehicle	15.00	0.62	2	12.14	5	73.85	92.32	1	354.8556	354.9	**503.94**	**839.90**	**844.29**	**1407.15**
		L_3 - L_4	3.90	-4.48	1.27	1.27	-0.45	-0.45					1.00	0.75	3.90	0.95	-----	Vehicle	-4.48	-0.34	-----	Vehicle	15.00	0.62	2	12.14	5	73.85	92.32	1	354.8556	354.9	**169.76**	**282.93**	**477.31**	**795.52**
		L_4 - L_5	1.53	-7.85	0.00	0.00	-2.44	-2.44					1.00	0.75	1.53	-----	-----	-----	-7.85	-1.83	-----	Vehicle	15.00	0.52	2	14.42	5	73.85	92.32	1	298.584	298.6	-----	-----	**72.76**	**121.27**
		L_5 - L_6	1.34	-7.19	0.00	0.00	-1.64	-1.64					1.00	0.75	1.34	-----	-----	-----	-7.19	-1.23	-----	Vehicle	15.00	0.77	2	9.74	5	73.85	92.32	1	442.134	442.1	-----	-----	**162.89**	**271.49**
		L_6 - L_7	3.62	-6.82	0.69	0.69	-1.35	-1.35					1.00	0.75	3.62	0.52	-----	Vehicle	-6.82	-1.01	-----	Vehicle	15.00	1.22	2	6.17	5	73.85	92.32	1	698.2272	698.2	**617.63**	**1029.38**	**315.17**	**525.29**
		L_7 - L_8	-6.36	-14.66	0.00	0.00	-5.51	-5.51					1.00	0.75	-6.36	-----	-----	-----	-14.66	-4.13	-----	Vehicle	15.00	1.62	2	4.64	5	73.85	92.32	1	927.9072	927.9	-----	-----	**101.54**	**169.24**
		L_8 - L_9	15.52	7.55	5.51	5.51	0.00	0.00					1.00	0.75	15.52	4.13	-----	Vehicle	7.55	-----	-----	-----	15.00	1.62	2	4.64	5	73.85	92.32	1	927.9072	927.9	**101.40**	**169.00**	-----	-----
		L_9 - L_{10}	10.29	-2.64	1.18	1.18	-0.66	-0.66					1.00	0.75	10.29	0.89	-----	Vehicle	-2.64	-0.50	-----	Vehicle	15.00	1.22	2	6.17	5	73.85	92.32	1	698.2272	698.2	**356.85**	**594.76**	**643.93**	**1073.22**
		L_{10} - L_{11}	8.89	0.36	2.10	2.10	0.00	0.00					1.00	0.75	8.89	1.57	-----	Vehicle	0.36	-----	-----	-----	15.00	0.52	2	14.42	5	73.85	92.32	1	298.584	298.6	**84.19**	**140.32**	-----	-----
		L_{11} - L_{12}	11.21	-1.42	1.31	1.31	0.00	0.00					1.00	0.75	11.21	0.98	-----	Vehicle	-1.42	-----	-----	-----	15.00	0.52	2	14.42	5	73.85	92.32	1	298.584	298.6	**133.83**	**223.04**	-----	-----
		L_{12} - L_{13}	6.02	-3.53	0.76	0.76	0.00	0.00					1.00	0.75	6.02	0.57	-----	Vehicle	-3.53	-----	-----	-----	15.00	1.02	2	7.35	5	73.85	92.32	1	585.684	585.7	**469.75**	**782.92**	-----	-----
		L_{13} - L_{14}	11.62	0.44	3.16	3.16	0.00	0.00					1.00	0.75	11.62	2.37	-----	Vehicle	0.44	-----	-----	-----	15.00	1.46	2	5.15	5	73.85	92.32	1	836.8965	836.9	**159.89**	**266.48**	-----	-----
		L_{14} - L_{15}	2.83	-9.85	0.22	0.22	-2.41	-2.41					1.00	0.75	2.83	0.17	-----	Vehicle	-9.85	-1.81	-----	Vehicle	15.00	1.81	2	4.15	5	73.85	92.32	1	1037.8665	1037.9	**2892.85**	**4821.42**	**261.53**	**435.88**
		L_{15} - L_{16}	6.71	-2.72	0.18	0.18	-0.35	-0.35					1.00	0.75	6.71	0.13	-----	Vehicle	-2.72	-0.26	-----	Vehicle	15.00	1.81	2	4.15	5	73.85	92.32	1	1037.8665	1037.9	**3618.99**	**6031.65**	**1823.82**	**3039.69**
		L_{16} - L_{17}	-0.07	-11.08	0.15	0.15	-1.59	-1.59					1.00	0.75	-0.07	0.11	-----	Vehicle	-11.08	-1.19	-----	Vehicle	15.00	1.34	2	5.61	5	73.85	92.32	1	767.9925	768.0	**3172.27**	**5287.12**	**292.03**	**486.72**
		L_{17} - L_{18}	3.82	-7.83	0.10	0.10	-1.19	-1.19					1.00	0.75	3.82	0.08	-----	Vehicle	-7.83	-0.89	-----	Vehicle	15.00	0.90	2	8.33	5	73.85	92.32	1	516.78	516.8	**3057.91**	**5096.52**	**262.64**	**437.73**
		L_{18} - L_{19}	1.59	-10.77	0.10	0.10	-1.16	-1.16					1.00	0.75	1.59	0.08	-----	Vehicle	-10.77	-0.87	-----	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**1386.80**	**2311.34**	**114.72**	**191.19**
		L_{19} - L_{20}	2.58	-7.20	0.08	0.08	-1.40	-1.40					1.00	0.75	2.58	0.06	-----	Vehicle	-7.20	-1.05	-----	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**1763.02**	**2938.36**	**96.64**	**161.06**
	Structure 2	L_0 - L_1	7.47	-2.52	1.91	1.91	-0.38	-0.38					1.00	0.75	7.47	1.43	-----	Vehicle	-2.52	-0.29	-----	Vehicle	18.00	0.45	2	20.00	5	73.85	92.32	1	310.068	310.1	**96.67**	**161.12**	**495.53**	**825.88**
		L_1 - L_2	11.63	-2.16	1.56	1.56	-0.41	-0.41					1.00	0.75	11.63	1.17	-----	Vehicle	-2.16	-0.31	-----	Vehicle	18.00	0.45	2	20.00	5	73.85	92.32	1	310.068	310.1	**116.05**	**193.42**	**464.58**	**774.29**
		L_2 - L_3	8.06	-2.93	1.44	1.44	-0.33	-0.33					1.00	0.75	8.06	1.08	-----	Vehicle	-2.93	-0.25	-----	Vehicle	18.00	0.83	2	10.91	5	73.85	92.32	1	568.458	568.5	**239.12**	**398.53**	**1049.77**	**1749.62**
		L_3 - L_4	12.24	-1.94	1.36	1.36	-0.45	-0.45					1.00	0.75	12.24	1.02	-----	Vehicle	-1.94	-0.34	-----	Vehicle	18.00	1.19	2	7.57	5	73.85	92.32	1	819.6705	819.7	**364.76**	**607.94**	**1107.62**	**1846.03**
		L_4 - L_5	9.46	-8.43	0.90	0.90	-0.26	-0.26					1.00	0.75	9.46	0.68	-----	Vehicle	-8.43	-0.20	-----	Vehicle	18.00	1.56	2	5.76	5	73.85	92.32	1	1076.625	1076.6	**726.13**	**1210.22**	**2484.06**	**4140.11**
		L_5 - L_6	11.40	-2.08	0.62	0.62	-0.50	-0.50					1.00	0.75	11.40	0.47	-----	Vehicle	-2.08	-0.37	-----	Vehicle	18.00	1.72	2	5.24	5	73.85	92.32	1	1184.2875	1184.3	**1158.89**	**1931.49**	**1468.95**	**2448.25**
		L_6 - L_7	4.02	-9.79	1.29	1.29	-0.50	-0.50					1.00	0.75	4.02	0.97	-----	Vehicle	-9.79	-0.37	-----	Vehicle	18.00	1.75	2	5.16	5	73.85	92.32	1	1202.949	1202.9	**569.60**	**949.33**	**1467.83**	**2446.38**
		L_7 - L_8	4.78	-10.27	0.00	0.00	-2.16	-2.16					1.00	0.75	4.78	-----	-----	-----	-10.27	-1.62	-----	Vehicle	18.00	1.23	2	7.35	5	73.85	92.32	1	844.074	844.1	-----	-----	**236.78**	**394.64**
		L_8 - L_9	0.58	-13.59	0.13	0.13	-1.09	-1.09					1.00	0.75	0.58	0.09	-----	Vehicle	-13.59	-0.82	-----	Vehicle	18.00	0.96	2	9.37	5	73.85	92.32	1	661.7655	661.8	**3228.42**	**5380.69**	**363.97**	**606.62**
		L_9 - L_{10}	-0.11	-10.43	0.00	0.00	-2.14	-2.14					1.00	0.75	-0.11	-----	-----	-----	-10.43	-1.60	-----	Vehicle	18.00	0.70	2	12.86	5	73.85	92.32	1	482.328	482.3	-----	-----	**134.99**	**224.98**
		L_{10} - L_{11}	-0.07	-12.28	0.31	0.31	-1.51	-1.51					1.00	0.75	-0.07	0.24	-----	Vehicle	-12.28	-1.13	-----	Vehicle	18.00	0.60	2	15.00	5	73.85	92.32	1	413.424	413.4	**810.40**	**1350.67**	**161.77**	**269.61**
		L_{11} - L_{12}	1.07	-14.66	0.00	0.00	-3.28	-3.28					1.00	0.75	1.07	-----	-----	-----	-14.66	-2.46	-----	Vehicle	18.00	0.96	2	9.33	5	73.85	92.32	1	664.6365	664.6	-----	-----	**121.12**	**201.87**
		L_{12} - L_{13}	6.89	-6.84	1.88	1.88	-1.04	-1.04					1.00	0.75	6.89	1.41	-----	Vehicle	-6.84	-0.78	-----	Vehicle	18.00	1.41	2	6.37	5	73.85	92.32	1	973.269	973.3	**314.98**	**524.97**	**570.09**	**950.15**
		L_{13} - L_{14}	-19.00	-32.90	0.00	0.00	-11.16	-11.16					1.00	0.75	-19.00	-----	-----	-----	-32.90	-8.37	-----	Vehicle	18.00	1.73	2	5.22	5	73.85	92.32	1	1188.594	1188.6	-----	-----	**63.20**	**105.33**
		L_{14} - L_{15}	32.02	18.24	10.63	10.63	0.00	0.00					1.00	0.75	32.02	7.97	-----	Vehicle	18.24	-----	-----	-----	18.00	1.73	2	5.22	5	73.85	92.32	1	1188.594	1188.6	**66.43**	**110.72**	-----	-----
		L_{15} - L_{16}	2.21	-10.14	0.63	0.63	-1.94	-1.94					1.00	0.75	2.21	0.47	-----	Vehicle	-10.14	-1.46	-----	Vehicle	18.00	1.41	2	6.37	5	73.85	92.32	1	973.269	973.3	**946.38**	**1577.30**	**303.92**	**506.53**
		L_{16} - L_{17}	13.39	-0.69	2.82	2.82	0.00	0.00					1.00	0.75	13.39	2.12	-----	Vehicle	-0.69	-----	-----	-----	18.00	1.12	2	8.06	5	73.85	92.32	1	769.428	769.4	**163.99**	**273.32**	-----	-----
		L_{17} - L_{18}	9.56	-2.17	2.06	2.06	-0.63	-0.63					1.00	0.75	9.56	1.54	-----	Vehicle	-2.17	-0.47	-----	Vehicle	18.00	0.70	2	12.86	5	73.85	92.32	1	482.328	482.3	**140.65**	**234.41**	**470.63**	**784.38**
		L_{18} - L_{19}	8.70	-1.33	1.57	1.57	0.00	0.00					1.00	0.75	8.70	1.17	-----	Vehicle	-1.33	-----	-----	-----	18.00	0.50	2	18.00	5	73.85	92.32	1	344.52	344.5	**130.94**	**218.23**	-----	-----
		L_{19} - L_{20}	9.27	-3.28	0.88	0.88	-0.27	-0.27					1.00	0.75	9.27	0.66	-----	Vehicle	-3.28	-0.20	-----	Vehicle	18.00	0.50	2	18.00	5	73.85	92.32	1	344.52	344.5	**232.76**	**387.93**	**775.52**	**1292.54**
		L_{20} - L_{21}	7.20	-3.21	0.91	0.91	0.00	0.00					1.00	0.75	7.20	0.68	-----	Vehicle	-3.21	-----	-----	-----	18.00	0.81	2	11.08	5	73.85	92.32	1	559.845	559.8	**374.32**	**623.87**	-----	-----
		L_{21} - L_{22}	8.50	-2.78	2.42	2.42	-0.26	-0.26					1.00	0.75	8.50	1.81	-----	Vehicle	-2.78	-0.20	-----	Vehicle	18.00	0.81	2	11.08	5	73.85	92.32	1	559.845	559.8	**139.84**	**233.07**	**1296.57**	**2160.95**
		L_{22} - L_{23}	2.93	-8.09	0.26	0.26	-2.37	-2.37					1.00	0.75	2.93	0.20	-----	Vehicle	-8.09	-1.78	-----	Vehicle	18.00	0.81	2	11.08	5	73.85	92.32	1	559.845	559.8	**1296.12**	**2160.20**	**142.46**	**237.43**
		L_{23} - L_{24}	3.61	-6.79	0.00	0.00	-0.94	-0.94					1.00	0.75	3.61	-----	-----	-----	-6.79	-0.71	-----	Vehicle	18.00	0.81	2	11.08	5	73.85	92.32	1	559.845	559.8	-----	-----	**359.59**	**599.31**
		L_{24} - L_{25}	3.13	-9.39	0.23	0.23	-1.11	-1.11					1.00	0.75	3.13	0.18	-----	Vehicle	-9.39	-0.83	-----	Vehicle	18.00	0.50	2	18.00	5	73.85	92.32	1	344.52	344.5	**895.33**	**1492.22**	**183.90**	**306.51**
		L_{25} - L_{26}	1.67	-8.33	0.00	0.00	-1.45	-1.45					1.00	0.75	1.67	-----	-----	-----	-8.33	-1.08	-----	Vehicle	18.00	0.50	2	18.00	5	73.85	92.32	1	344.52	344.5	-----	-----	**142.01**	**236.68**
		L_{26} - L_{27}	1.60	-10.07	0.54	0.54	-2.22	-2.22					1.00	0.75	1.60	0.41	-----	Vehicle	-10.07	-1.67	-----	Vehicle	18.00	0.70	2	12.86	5	73.85	92.32	1	482.328	482.3	**546.28**	**910.47**	**129.90**	**216.50**
		L_{27} - L_{28}	0.95	-13.04	0.00	0.00	-2.92	-2.92					1.00	0.75	0.95	-----	-----	-----	-13.04	-2.19	-----	Vehicle	18.00	1.12	2	8.06	5	73.85	92.32	1	769.428	769.4	-----	-----	**158.85**	**264.76**
		L_{28} - L_{29}	8.62	-3.57	2.00	2.00	-0.40	-0.40					1.00	0.75	8.62	1.50	-----	Vehicle	-3.57	-0.30	-----	Vehicle	18.00	1.41	2	6.37	5	73.85	92.32	1	973.269	973.3	**295.57**	**492.62**	**1482.79**	**2471.32**
		L_{29} - L_{30}	-17.40	-30.90	0.00	0.00	-11.10	-11.10					1.00	0.75	-17.40	-----	-----	-----	-30.90	-8.33	-----	Vehicle	18.00	1.73	2	5.22	5	73.85	92.32	1	1188.594	1188.6	-----	-----	**63.67**	**106.11**
		L_{30} - L_{31}	30.59	16.41	10.87	10.87	0.00	0.00					1.00	0.75	30.59	8.15	-----	Vehicle	16.41	-----	-----	-----	18.00	1.73	2	5.22	5	73.85	92.32	1	1188.594	1188.6	**65.04**	**108.40**	-----	-----
		L_{31} - L_{32}	5.57	-8.34	1.11	1.11	-1.86	-1.86					1.00	0.75	5.57	0.83	-----	Vehicle	-8.34	-1.39	-----	Vehicle	18.00	1.41	2	6.37	5	73.85	92.32	1	973.269	973.3	**535.09**	**891.81**	**318.76**	**531.27**
		L_{32} - L_{33}	14.28	-1.54	3.09	3.09	0.00	0.00					1.00	0.75	14.28	2.32	-----	Vehicle	-1.54	-----	-----	-----	18.00	0.96	2	9.33	5	73.85	92.32	1	664.6365	664.6	**128.54**	**214.24**	-----	-----
		L_{33} - L_{34}	11.19	-1.33	1.59	1.59	-0.38	-0.38					1.00	0.75	11.19	1.19	-----	Vehicle	-1.33	-0.29	-----	Vehicle	18.00	0.60	2	15.00	5	73.85	92.32	1	413.424	413.4	**154.48**	**257.46**	**664.97**	**1108.29**
		L_{34} - L_{35}	10.35	-0.01	2.04	2.04	0.00	0.00					1.00	0.75	10.35	1.53	-----	Vehicle	-0.01	-----	-----	-----	18.00	0.70	2	12.86	5	73.85	92.32	1	482.328	482.3	**141.30**	**235.50**	-----	-----
		L_{35} - L_{36}	12.98	-1.23	0.94	0.94	-0.06	-0.06					1.00	0.75	12.98	0.71	-----	Vehicle	-1.23	-0.05	-----	Vehicle	18.00	0.96	2	9.37	5	73.85	92.32	1	661.7655	661.8	**421.29**	**702.15**	**6448.55**	**10747.58**
		L_{36} - L_{37}	10.09	-4.97	2.12	2.12	0.00	0.00					1.00	0.75	10.09	1.59	-----	Vehicle	-4.97	-----	-----	-----	18.00	1.23	1	14.69	5	73.85	92.32	1	422.037	422.0	**118.76**	**197.93**	-----	-----
		L_{37} - L_{38}	10.82	-3.01	0.21	0.21	-1.26	-1.26					1.00	0.75	10.82	0.16	-----	Vehicle	-3.01	-0.94	-----	Vehicle	18.00	1.75	2	5.16	5	73.85	92.32	1	1202.949	1202.9	**3517.42**	**5862.36**	**586.08**	**976.80**
		L_{38} - L_{39}	2.38	-11.08	0.44	0.44	-0.77	-0.77					1.00	0.75	2.38	0.33	-----	Vehicle	-11.08	-0.58	-----	Vehicle	18.00	1.72	2	5.24	5	73.85	92.32	1	1184.2875	1184.3	**1652.02**	**2753.36**	**936.19**	**1560.31**
		L_{39} - L_{40}	9.28	-8.60	0.26	0.26	-1.75	-1.75					1.00	0.75	9.28	0.19	-----	Vehicle	-8.60	-1.31	-----	Vehicle	18.00	1.56	2	5.76	5	73.85	92.32	1	1076.625	1076.6	**2549.10**	**4248.50**	**374.02**	**623.37**
		L_{40} - L_{41}	1.61	-12.52	0.36	0.36	-0.97	-0.97					1.00	0.75	1.61	0.27	-----	Vehicle	-12.52	-0.73	-----	Vehicle	18.00	1.19	2	7.57	5	73.85	92.32	1	819.6705	819.7	**1386.02**	**2310.04**	**508.12**	**846.86**
		L_{41} - L_{42}	3.29	-7.64	0.33	0.33	-1.70	-1.70					1.00	0.75	3.29	0.25	-----	Vehicle	-7.64	-1.27	-----	Vehicle	18.00	0.83	2	10.91	5	73.85	92.32	1	568.458	568.5	**1052.09**	**1753.48**	**202.30**	**337.17**
		L_{42} - L_{43}	1.35	-12.36	0.30	0.30	-1.24	-1.24					1.00	0.75	1.35	0.23	-----	Vehicle	-12.36	-0.93	-----	Vehicle	18.00	0.45	1	40.00	5	73.85	92.32	1	155.034	155.0	**312.34**	**520.57**	**68.74**	**114.57**
		L_{43} - L_{44}	1.52	-8.38	0.29	0.29	-1.80	-1.80					1.00	0.75	1.52	0.22	-----	Vehicle	-8.38	-1.35	-----	Vehicle	18.00	0.45	2	20.00	5	73.85	92.32	1	310.068	310.1	**660.61**	**1101.02**	**102.06**	**170.09**
	Structure 3	L_0 - L_1	6.56	-3.30	1.34	1.34	-0.12	-0.12					1.00	0.75	6.56	1.00	-----	Vehicle	-3.30	-0.09	-----	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**101.72**	**169.53**	**1165.58**	**1942.63**
		L_1 - L_2	10.13	-2.33	1.24	1.24	-0.15	-0.15					1.00	0.75	10.13	0.93	-----	Vehicle	-2.33	-0.11	-----	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**107.28**	**178.80**	**911.60**	**1519.33**
		L_2 - L_3	7.92	-3.84	1.11	1.11	-0.11	-0.11					1.00	0.75	7.92	0.83	-----	Vehicle	-3.84	-0.08	-----	Vehicle	15.00	0.90	2	8.33	5	73.85	92.32	1	516.78	516.8	**280.04**	**466.74**	**2916.19**	**4860.31**
		L_3 - L_4	10.42	-0.67	1.31	1.31	-0.21	-0.21					1.00	0.75	10.42	0.98	-----	Vehicle	-0.67	-0.16	-----	Vehicle	15.00	1.34	2	5.61	5	73.85	92.32	1	767.9925	768.0	**354.41**	**590.68**	**2258.74**	**3764.57**
		L_4 - L_5	3.19	-6.26	0.35	0.35	-0.31	-0.31					1.00	0.75	3.19	0.26	-----	Vehicle	-6.26	-0.24	-----	Vehicle	15.00	1.81	2	4.15	5	73.85	92.32	1	1037.8665	1037.9	**1843.87**	**3073.12**	**2018.09**	**3363.49**
		L_5 - L_6	10.01	-2.69	2.45	2.45	-0.22	-0.22					1.00	0.75	10.01	1.84	-----	Vehicle	-2.69	-0.17	-----	Vehicle	15.00	1.81	2	4.15	5	73.85	92.32	1	1037.8665	1037.9	**257.11**	**428.51**	**2841.68**	**4736.13**
		L_6 - L_7	-0.14	-11.31	0.00	0.00	-3.27	-3.27					1.00	0.75	-0.14	-----	-----	-----	-11.31	-2.45	-----	Vehicle	15.00	1.46	2	5.15	5	73.85	92.32	1	836.8965	836.9	-----	-----	**154.92**	**258.20**
		L_7 - L_8	3.69	-5.85	0.00	0.00	-0.74	-0.74					1.00	0.75	3.69	-----	-----	-----	-5.85	-0.56	-----	Vehicle	15.00	1.02	2	7.35	5	73.85	92.32	1	585.684	585.7	-----	-----	**479.44**	**799.06**
		L_8 - L_9	1.43	-11.17	0.00	0.00	-1.67	-1.67					1.00	0.75	1.43	-----	-----	-----	-11.17	-1.25	-----	Vehicle	15.00	0.52	2	14.42	5	73.85	92.32	1	298.584	298.6	-----	-----	**104.49**	**174.15**
		L_9 - L_{10}	-0.27	-8.76	0.00	0.00	-2.27	-2.27					1.00	0.75	-0.27	-----	-----	-----	-8.76	-1.70	-----	Vehicle	15.00	0.52	2	14.42	5	73.85	92.32	1	298.584	298.6	-----	-----	**78.03**	**130.05**
		L_{10} - L_{11}	2.24	-10.60	0.60	0.60	-1.18	-1.18					1.00	0.75	2.24	0.45	-----	Vehicle	-10.60	-0.88	-----	Vehicle	15.00	1.22	2	6.17	5	73.85	92.32	1	698.2272	698.2	**714.33**	**1190.55**	**357.86**	**596.43**
		L_{11} - L_{12}	-7.73	-15.55	0.00	0.00	-5.62	-5.62					1.00	0.75	-7.73	-----	-----	-----	-15.55	-4.21	-----	Vehicle	15.00	1.62	2	4.64	5	73.85	92.32	1	927.9072	927.9	-----	-----	**99.43**	**165.71**
		L_{12} - L_{13}	14.02	5.56	5.17	5.17	0.00	0.00					1.00	0.75	14.02	3.88	-----	Vehicle	5.56	-----	-----	-----	15.00	1.62	2	4.64	5	73.85	92.32	1	927.9072	927.9	**108.28**	**180.47**	-----	-----
		L_{13} - L_{14}	6.55	-3.98	1.01	1.01	-0.72	-0.72					1.00	0.75	6.55	0.76	-----	Vehicle	-3.98	-0.54

Columbia Parkway (HAM-471-0025)
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

			Member Forces from STAAD												Maximum Positive Shear				Minimum Negative Shear												Shear Force Rating			
			D		LL_{max}		LL_{min}		Pedestrian $Load_{max}$		Pedestrian $Load_{min}$																				Positive Shear Member		Negative Shear Member	
Location		Member	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Impact (1+I)	Lane Reduction	Dead (kips)	LL & Impact & Lane Reduct. (kips)	Pedestrian Load & Impact	Load Factor Groups &	Dead (kips)	LL & Impact & Lane Reduct.	Pedestrian Load & Impact	Load Factor Groups &	Depth of Web (inches)	Thickness of Web (inches	Number of Webs	D/t_W	k	6000 sqrt(k) sqrt(Fy)	7500 sqrt(k) sqrt(Fy)	C	V_P (kips)	V_U (kips)	Inventory RF	Operating RF	Inventory RF	Operating RF
Center Truss - Verticals	Structure 1	U_0 - L_0	-1.75	-1.75	0.47	0.47	-1.45	-1.45					1.00	0.75	-1.75	0.35	-----	Vehicle	-1.75	-1.09	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	324.44	540.74	103.83	173.05
		U_1 - L_1	-0.62	-0.62	0.50	0.50	-1.48	-1.48					1.00	0.75	-0.62	0.38	-----	Vehicle	-0.62	-1.11	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	303.29	505.49	102.41	170.68
		U_2 - L_2	0.44	0.44	0.54	0.54	-1.18	-1.18					1.00	0.75	0.44	0.41	-----	Vehicle	0.44	-0.89	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	279.90	466.51	128.95	214.91
		U_3 - L_3	1.39	1.39	0.50	0.50	-1.16	-1.16					1.00	0.75	1.39	0.37	-----	Vehicle	1.39	-0.87	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	303.71	506.19	131.71	219.51
		U_4 - L_4	1.88	1.88	1.00	1.00	0.00	0.00					1.00	0.75	1.88	0.75	-----	Vehicle	1.88	-----	-----	-----	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	150.70	251.17	-----	-----
		U_5 - L_5	2.05	2.05	2.14	2.14	0.00	0.00					1.00	0.75	2.05	1.61	-----	Vehicle	2.05	-----	-----	-----	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	85.53	142.55	-----	-----
		U_6 - L_6	2.06	2.06	1.50	1.50	0.00	0.00					1.00	0.75	2.06	1.12	-----	Vehicle	2.06	-----	-----	-----	16.00	0.44	2	18.29	5	73.85	92.32	1	267.96	268.0	108.90	181.51	-----	-----
		U_7 - L_7	2.38	2.38	1.56	1.56	0.00	0.00					1.00	0.75	2.38	1.17	-----	Vehicle	2.38	-----	-----	-----	16.25	0.44	2	18.57	5	73.85	92.32	1	272.14688	272.1	105.86	176.44	-----	-----
		U_8 - L_8	-0.39	-0.39	1.11	1.11	-0.76	-0.76					1.00	0.75	-0.39	0.83	-----	Vehicle	-0.39	-0.57	-----	Vehicle	15.25	0.82	2	9.30	5	73.85	92.32	1	478.6914	478.7	265.67	442.78	385.17	641.94
		U_9 - L_9	-4.56	-4.56	0.00	0.00	-1.89	-1.89					1.00	0.75	-4.56	-----	-----	-----	-4.56	-1.42	-----	Vehicle	16.25	0.50	2	16.25	5	73.85	92.32	1	311.025	311.0	-----	-----	99.18	165.31
		U_{10} - L_{10}	-3.59	-3.59	0.00	0.00	-1.61	-1.61					1.00	0.75	-3.59	-----	-----	-----	-3.59	-1.20	-----	Vehicle	16.16	0.83	2	9.75	5	73.85	92.32	1	512.74682	512.7	-----	-----	194.69	324.48
		U_{11} - L_{11}	-4.40	-4.40	0.00	0.00	-2.13	-2.13					1.00	0.75	-4.40	-----	-----	-----	-4.40	-1.60	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	-----	-----	104.89	174.81
		U_{12} - L_{12}	-3.21	-3.21	0.00	0.00	-1.67	-1.67					1.00	0.75	-3.21	-----	-----	-----	-3.21	-1.25	-----	Vehicle	16.25	0.50	2	16.25	5	73.85	92.32	1	311.025	311.0	-----	-----	113.00	188.34
		U_{13} - L_{13}	-1.86	-1.86	0.00	0.00	-1.60	-1.60					1.00	0.75	-1.86	-----	-----	-----	-1.86	-1.20	-----	Vehicle	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	-----	-----	103.30	172.17
		U_{14} - L_{14}	-0.98	-0.98	0.03	0.03	-0.53	-0.53					1.00	0.75	-0.98	0.02	-----	Vehicle	-0.98	-0.40	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	5661.02	9435.04	287.05	478.41
		U_{15} - L_{15}	0.02	0.02	1.02	1.02	-0.16	-0.16					1.00	0.75	0.02	0.76	-----	Vehicle	0.02	-0.12	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	149.80	249.67	927.28	1545.47
		U_{16} - L_{16}	0.93	0.93	0.81	0.81	-0.14	-0.14					1.00	0.75	0.93	0.61	-----	Vehicle	0.93	-0.11	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	186.12	310.20	1068.57	1780.95
		U_{17} - L_{17}	1.41	1.41	1.01	1.01	-0.11	-0.11					1.00	0.75	1.41	0.76	-----	Vehicle	1.41	-0.08	-----	Vehicle	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	182.60	304.34	1707.69	2846.15
		U_{18} - L_{18}	2.69	2.69	1.32	1.32	-0.13	-0.13					1.00	0.75	2.69	0.99	-----	Vehicle	2.69	-0.09	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	144.05	240.08	1539.77	2566.28
		U_{19} - L_{19}	2.33	2.33	1.04	1.04	-0.09	-0.09					1.00	0.75	2.33	0.78	-----	Vehicle	2.33	-0.06	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	216.00	359.99	2657.98	4429.97
		U_{20} - L_{20}	2.00	2.00	0.75	0.75	-0.04	-0.04					1.00	0.75	2.00	0.56	-----	Vehicle	2.00	-0.03	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	299.76	499.61	5568.69	9281.14
	Structure 2	U_0 - L_0	-1.99	-1.99	0.21	0.21	-0.99	-0.99					1.00	0.75	-1.99	0.16	-----	Vehicle	-1.99	-0.74	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	1174.23	1957.04	247.98	413.31
		U_1 - L_1	-2.54	-2.54	0.28	0.28	-1.19	-1.19					1.00	0.75	-2.54	0.21	-----	Vehicle	-2.54	-0.89	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	881.18	1468.63	206.32	343.87
		U_2 - L_2	-2.56	-2.56	0.38	0.38	-1.34	-1.34					1.00	0.75	-2.56	0.28	-----	Vehicle	-2.56	-1.00	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	549.55	915.92	152.19	253.65
		U_3 - L_3	-1.64	-1.64	0.27	0.27	-0.80	-0.80					1.00	0.75	-1.64	0.20	-----	Vehicle	-1.64	-0.60	-----	Vehicle	16.32	0.53	2	15.43	5	73.85	92.32	1	330.48196	330.5	755.29	1258.81	251.32	418.87
		U_4 - L_4	-1.05	-1.05	0.30	0.30	-0.78	-0.78					1.00	0.75	-1.05	0.22	-----	Vehicle	-1.05	-0.58	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	518.31	863.85	194.37	323.95
		U_5 - L_5	-0.25	-0.25	0.29	0.29	-0.61	-0.61					1.00	0.75	-0.25	0.21	-----	Vehicle	-0.25	-0.46	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	532.37	887.28	249.78	416.29
		U_6 - L_6	0.42	0.42	0.26	0.26	-0.57	-0.57					1.00	0.75	0.42	0.20	-----	Vehicle	0.42	-0.43	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	581.33	968.88	265.50	442.49
		U_7 - L_7	1.07	1.07	0.36	0.36	0.00	0.00					1.00	0.75	1.07	0.27	-----	Vehicle	1.07	-----	-----	-----	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	421.18	701.97	-----	-----
		U_8 - L_8	2.63	2.63	1.35	1.35	0.00	0.00					1.00	0.75	2.63	1.01	-----	Vehicle	2.63	-----	-----	-----	15.75	0.44	2	18.00	5	73.85	92.32	1	263.77313	263.8	118.59	197.66	-----	-----
		U_9 - L_9	4.75	4.75	1.59	1.59	0.00	0.00					1.00	0.75	4.75	1.19	-----	Vehicle	4.75	-----	-----	-----	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	153.08	255.13	-----	-----
		U_{10} - L_{10}	4.10	4.10	1.78	1.78	0.00	0.00					1.00	0.75	4.10	1.34	-----	Vehicle	4.10	-----	-----	-----	16.48	0.81	2	10.15	5	73.85	92.32	1	511.96897	512.0	175.06	291.76	-----	-----
		U_{11} - L_{11}	3.59	3.59	1.40	1.40	0.00	0.00					1.00	0.75	3.59	1.05	-----	Vehicle	3.59	-----	-----	-----	16.48	0.81	2	10.15	5	73.85	92.32	1	511.96897	512.0	223.15	371.91	-----	-----
		U_{12} - L_{12}	2.93	2.93	1.37	1.37	-0.12	-0.12					1.00	0.75	2.93	1.03	-----	Vehicle	2.93	-0.09	-----	Vehicle	16.48	0.90	2	9.13	5	73.85	92.32	1	569.38897	569.4	253.68	422.80	3014.85	5024.76
		U_{13} - L_{13}	3.04	3.04	1.21	1.21	0.00	0.00					1.00	0.75	3.04	0.91	-----	Vehicle	3.04	-----	-----	-----	16.32	0.81	2	10.06	5	73.85	92.32	1	506.49034	506.5	255.16	425.27	-----	-----
		U_{14} - L_{14}	0.58	0.58	0.67	0.67	-0.58	-0.58					1.00	0.75	0.58	0.50	-----	Vehicle	0.58	-0.43	-----	Vehicle	15.38	0.84	2	9.15	5	73.85	92.32	1	494.54698	494.5	451.52	752.53	530.09	883.48
		U_{15} - L_{15}	-2.18	-2.18	0.16	0.16	-1.09	-1.09					1.00	0.75	-2.18	0.12	-----	Vehicle	-2.18	-0.82	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	1288.33	2147.22	187.10	311.83
		U_{16} - L_{16}	-1.90	-1.90	0.28	0.28	-1.22	-1.22					1.00	0.75	-1.90	0.21	-----	Vehicle	-1.90	-0.91	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	895.18	1491.97	201.66	336.11
		U_{17} - L_{17}	-2.63	-2.63	0.18	0.18	-1.85	-1.85					1.00	0.75	-2.63	0.14	-----	Vehicle	-2.63	-1.39	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	1257.25	2095.42	121.22	202.03
		U_{18} - L_{18}	-2.76	-2.76	0.16	0.16	-1.63	-1.63					1.00	0.75	-2.76	0.12	-----	Vehicle	-2.76	-1.22	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	1299.32	2165.54	124.75	207.92
		U_{19} - L_{19}	-1.74	-1.74	0.03	0.03	-0.90	-0.90					1.00	0.75	-1.74	0.02	-----	Vehicle	-1.74	-0.68	-----	Vehicle	15.75	0.50	2	15.75	5	73.85	92.32	1	301.455	301.5	6029.07	10048.45	203.67	339.45
		U_{20} - L_{20}	-1.31	-1.31	0.03	0.03	-0.82	-0.82					1.00	0.75	-1.31	0.02	-----	Vehicle	-1.31	-0.61	-----	Vehicle	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	6462.13	10770.22	203.09	338.49
		U_{21} - L_{21}	-0.84	-0.84	0.05	0.05	-0.95	-0.95					1.00	0.75	-0.84	0.03	-----	Vehicle	-0.84	-0.71	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	3394.05	5656.76	159.36	265.59
		U_{22} - L_{22}	-0.11	-0.11	0.25	0.25	-0.17	-0.17					1.00	0.75	-0.11	0.19	-----	Vehicle	-0.11	-0.13	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	601.39	1002.31	878.44	1464.07
		U_{23} - L_{23}	0.63	0.63	1.00	1.00	-0.03	-0.03					1.00	0.75	0.63	0.75	-----	Vehicle	0.63	-0.02	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	151.71	252.85	5260.79	8767.98
		U_{24} - L_{24}	1.17	1.17	0.88	0.88	-0.04	-0.04					1.00	0.75	1.17	0.66	-----	Vehicle	1.17	-0.03	-----	Vehicle	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	189.32	315.54	3904.84	6508.07
		U_{25} - L_{25}	1.72	1.72	1.12	1.12	-0.04	-0.04					1.00	0.75	1.72	0.84	-----	Vehicle	1.72	-0.03	-----	Vehicle	15.75	0.50	2	15.75	5	73.85	92.32	1	301.455	301.5	164.11	273.52	4672.25	7787.08
		U_{26} - L_{26}	2.90	2.90	1.73	1.73	-0.13	-0.13					1.00	0.75	2.90	1.30	-----	Vehicle	2.90	-0.10	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	117.68	196.14	1563.92	2606.54
		U_{27} - L_{27}	2.83	2.83	1.99	1.99	-0.12	-0.12					1.00	0.75	2.83	1.49	-----	Vehicle	2.83	-0.09	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	112.62	187.71	1846.61	3077.68
		U_{28} - L_{28}	2.23	2.23	1.33	1.33	-0.19	-0.19					1.00	0.75	2.23	1.00	-----	Vehicle	2.23	-0.14	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	184.36	307.26	1332.21	2220.36
		U_{29} - L_{29}	2.36	2.36	1.28	1.28	0.00	0.00					1.00	0.75	2.36	0.96	-----	Vehicle	2.36	-----	-----	-----	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	159.84	266.40	-----	-----
		U_{30} - L_{30}	0.03	0.03	0.61	0.61	-0.62	-0.62					1.00	0.75	0.03	0.46	-----	Vehicle	0.03	-0.47	-----	Vehicle	15.38	0.84	2	9.15	5	73.85	92.32	1	494.54698	494.5	501.34	835.57	490.11	816.85
		U_{31} - L_{31}	-2.50	-2.50	0.10	0.10	-1.19	-1.19					1.00	0.75	-2.50	0.07	-----	Vehicle	-2.50	-0.89	-----	Vehicle	16.32	0.81	2	10.06	5	73.85	92.32	1	506.49034	506.5	3267.52	5445.87	260.90	434.84
		U_{32} - L_{32}	-2.25	-2.25	0.17	0.17	-1.28	-1.28					1.00	0.75	-2.25	0.12	-----	Vehicle	-2.25	-0.96	-----	Vehicle	16.48	0.90	2	9.13	5	73.85	92.32	1	569.38897	569.4	2134.51	3557.52	272.98	454.96
		U_{33} - L_{33}	-2.93	-2.93	0.01	0.01	-1.30	-1.30					1.00	0.75	-2.93	0.01	-----	Vehicle	-2.93	-0.98	-----	Vehicle	16.48	0.81	2	10.15	5	73.85	92.32	1	511.96897	512.0	24415.59	40692.64	239.99	399.99
		U_{34} - L_{34}	-3.45	-3.45	0.00	0.00	-1.32	-1.32					1.00	0.75	-3.45	-----	-----	-----	-3.45	-0.99	-----	Vehicle	16.48	0.81	2	10.15	5	73.85	92.32	1	511.96897	512.0	-----	-----	236.06	393.43
		U_{35} - L_{35}	-4.24	-4.24	0.00	0.00	-1.47	-1.47					1.00	0.75	-4.24	-----	-----	-----	-4.24	-1.10	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	-----	-----	165.61	276.02
		U_{36} - L_{36}	-2.42	-2.42	0.00	0.00	-1.23	-1.23					1.00	0.75	-2.42	-----	-----	-----	-2.42	-0.92	-----	Vehicle	15.75	0.44	2	18.00	5	73.85	92.32	1	263.77313	263.8	-----	-----	130.08	216.80
		U_{37} - L_{37}	-1.22	-1.22	0.00	0.00	-0.30	-0.30					1.00	0.75	-1.22	-----	-----	-----	-1.22	-0.22	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	-----	-----	512.14	853.57
		U_{38} - L_{38}	-0.80	-0.80	0.69	0.69	-0.28	-0.28					1.00	0.75	-0.80	0.52	-----	Vehicle	-0.80	-0.21	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	221.94	369.91	533.18	888.64
		U_{39} - L_{39}	-0.09	-0.09	0.72	0.72	-0.31	-0.31					1.00	0.75	-0.09	0.54	-----	Vehicle	-0.09	-0.23	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	211.01	351.68	488.70	814.50
		U_{40} - L_{40}	0.85	0.85	1.10	1.10	-0.31	-0.31					1.00	0.75	0.85	0.82	-----	Vehicle	0.85	-0.23	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	138.00	230.00	494.30	823.83
		U_{41} - L_{41}	1.61	1.61	0.98	0.98	-0.26	-0.26					1.00	0.75	1.61	0.73	-----	Vehicle	1.61	-0.20	-----	Vehicle	16.32	0.53	2	15.43	5	73.85	92.32	1	330.48196	330.5	206.84	344.74	778.18	1296.97
		U_{42} - L_{42}	2.80	2.80	1.49	1.49	-0.34	-0.34					1.00	0.75	2.80	1.11	-----	Vehicle	2.80	-0.26	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	137.00	228.33	604.41	1007.36
		U_{43} - L_{43}	2.84	2.84	1.20	1.20	-0.25	-0.25					1.00	0.75	2.84	0.90	-----	Vehicle	2.84	-0.18	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	204.40	340.67	1014.69	1691.14
		U_{44} - L_{44}	2.62	2.62	0.87	0.87	-0.14	-0.14					1.00	0.75	2.62	0.65	-----	Vehicle	2.62	-0.11	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	283.19	471.99	1732.24	2887.07
	Structure 3	U_0 - L_0	-1.54	-1.54	0.07	0.07	-0.76	-0.76					1.00	0.75	-1.54	0.05	-----	Vehicle	-1.54	-0.57	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	3210.54	5350.90	296.70	494.50
		U_1 - L_1	-2.02	-2.02	0.11	0.11	-0.92	-0.92					1.00	0.75	-2.02	0.08	-----	Vehicle	-2.02	-0.69	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	2134.00	3556.66	245.74	409.57
		U_2 - L_2	-2.23	-2.23	0.15	0.15	-1.09	-1.09					1.00	0.75	-2.23	0.11	-----	Vehicle	-2.23	-0.82	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	1299.66	2166.11	173.74	289.57
		U_3 - L_3	-1.20	-1.20	0.12	0.12	-0.75	-0.75					1.00	0.75	-1.20	0.09	-----	Vehicle	-1.20	-0.56	-----	Vehicle	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	1575.99	2626.64	244.43	407.38
		U_4 - L_4	-0.86	-0.86	0.13	0.13	-0.74	-0.74					1.00	0.75	-0.86	0.10	-----	Vehicle	-0.86	-0.56	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	1139.93	1899.89	203.45	339.09
		U_5 - L_5	-0.15	-0.15	0.15	0.15	-0.96	-0.96					1.00	0.75	-0.15	0.11	-----	Vehicle	-0.15	-0.72	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	1014.55	1690.92	158.43	264.06
		U_6 - L_6	0.83	0.83	0.54	0.54	0.00	0.00					1.00	0.75	0.83	0.41	-----	Vehicle	0.83	-----	-----	-----	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	280.36	467.26	-----	-----
		U_7 - L_7	1.75	1.75	1.72	1.72	0.00	0.00					1.00	0.75	1.75	1.29	-----	Vehicle	1.75	-----	-----	-----	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	96.15	160.25	-----	-----
		U_8 - L_8	3.18	3.18	1.83	1.83	0.00	0.00					1.00	0.75	3.18	1.37	-----	Vehicle	3.18	-----	-----	-----	16.25	0.50	2	16.25	5	73.85	92.32	1	311.025	311.0	103.14	171.90	-----	-----
		U_9 - L_9	4.50	4.50	2.58	2.58	0.00	0.00					1.00	0.75	4.50	1.94	-----	Vehicle	4.50	-----	-----	-----	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	86.41	144.02	-----	-----
		U_{10} - L_{10}	3.82	3.82	1.91	1.91	0.00	0.00					1.00	0.75	3.82	1.43	-----	Vehicle	3.82	-----	-----	-----	16.16	0.83	2	9.75	5	73.85	92.32	1	512.74682	512.7	163.43	272.39	-----	-----
		U_{11} - L_{11}	4.83	4.83	2.17	2.17	0.00	0.00					1.00

Columbia Parkway (HAM-471-0025)
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Location	Member	Member Forces from STAAD: D Start (kips)	D End (kips)	LL_{max} Start (kips)	LL_{max} End (kips)	LL_{min} Start (kips)	LL_{min} End (kips)	Pedestrian $Load_{max}$ Start (kips)	Pedestrian $Load_{max}$ End (kips)	Pedestrian $Load_{min}$ Start (kips)	Pedestrian $Load_{min}$ End (kips)	Impact (1+I)	Lane Reduction	Maximum Positive Shear: Dead (kips)	LL & Impact & Lane Reduct. (kips)	Pedestrian Load & Impact	Load Factor Groups &	Minimum Negative Shear: Dead (kips)	LL & Impact & Lane Reduct.	Pedestrian Load & Impact	Load Factor Groups &	Depth of Web (inches)	Thickness of Web (inches)	Number of Webs	D/t_W	k	6000 sqrt(k) sqrt(Fy)	7500 sqrt(k) sqrt(Fy)	C	V_P (kips)	V_U (kips)	Shear Force Rating: Positive Shear Member Inventory RF	Positive Shear Member Operating RF	Negative Shear Member Inventory RF	Negative Shear Member Operating RF
Center Truss - Diagonals																																			
Structure 1	U_0 - L_1	-0.01	-0.51	0.12	0.12	-0.34	-0.34					1.00	0.75	-0.01	0.09	-----	Vehicle	-0.51	-0.26	-----	Vehicle	10.00	0.31	2	16.00	5	73.85	92.32	1	119.625	119.6	593.73	989.55	215.31	358.84
	U_1 - L_2	0.22	-0.08	0.07	0.07	-0.20	-0.20					1.00	0.75	0.22	0.05	-----	Vehicle	-0.08	-0.15	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	2139.25	3565.42	756.20	1260.33
	U_2 - L_3	0.25	-0.05	0.08	0.08	-0.16	-0.16					1.00	0.75	0.25	0.06	-----	Vehicle	-0.05	-0.12	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	1851.93	3086.54	974.49	1624.15
	U_3 - L_4	0.41	0.09	0.08	0.08	-0.01	-0.01					1.00	0.75	0.41	0.06	-----	Vehicle	0.09	0.00	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	1873.28	3122.13	30426.80	50711.34
	U_4 - L_4	-0.19	-0.52	0.00	0.00	-0.27	-0.27					1.00	0.75	-0.19	-----	-----	-----	-0.52	-0.20	-----	Vehicle	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	-----	-----	686.21	1143.69
	U_4 - L_5	-0.74	-1.19	0.00	0.00	-0.75	-0.75					1.00	0.75	-0.74	-----	-----	-----	-1.19	-0.56	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	-----	-----	253.87	423.12
	U_5 - L_6	-1.07	-1.54	0.00	0.00	-0.94	-0.94					1.00	0.75	-1.07	-----	-----	-----	-1.54	-0.71	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	-----	-----	201.94	336.57
	U_6 - L_7	-0.62	-1.11	0.00	0.00	-0.57	-0.57					1.00	0.75	-0.62	-----	-----	-----	-1.11	-0.43	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	-----	-----	332.71	554.52
	U_7 - L_8	-0.89	-1.81	0.06	0.06	-0.56	-0.56					1.00	0.75	-0.89	0.04	-----	Vehicle	-1.81	-0.42	-----	Vehicle	16.25	0.63	2	13.00	5	73.85	92.32	1	388.78125	388.8	4284.99	7141.65	427.71	712.85
	U_8 - L_{10}	-1.43	-2.27	0.00	0.00	-0.83	-0.83					1.00	0.75	-1.43	-----	-----	-----	-2.27	-0.62	-----	Vehicle	16.25	0.63	2	13.00	5	73.85	92.32	1	388.78125	388.8	-----	-----	285.03	475.06
	U_{10} - L_{11}	-1.02	-1.87	0.00	0.00	-0.60	-0.60					1.00	0.75	-1.02	-----	-----	-----	-1.87	-0.45	-----	Vehicle	16.25	0.50	2	16.25	5	73.85	92.32	1	311.025	311.0	-----	-----	316.50	527.50
	U_{11} - L_{12}	-0.81	-1.29	0.00	0.00	-0.62	-0.62					1.00	0.75	-0.81	-----	-----	-----	-1.29	-0.46	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	-----	-----	366.98	611.63
	U_{12} - L_{13}	-0.67	-1.39	0.00	0.00	-0.56	-0.56					1.00	0.75	-0.67	-----	-----	-----	-1.39	-0.42	-----	Vehicle	16.00	0.44	2	18.29	5	73.85	92.32	1	267.96	268.0	-----	-----	293.53	489.21
	U_{13} - L_{14}	-0.13	-0.46	0.00	0.00	-0.23	-0.23					1.00	0.75	-0.13	-----	-----	-----	-0.46	-0.17	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	-----	-----	651.04	1085.07
	U_{15} - L_{14}	0.38	0.05	0.06	0.06	-0.11	-0.11					1.00	0.75	0.38	0.04	-----	Vehicle	0.05	-0.08	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	2572.14	4286.90	1346.00	2243.33
	U_{16} - L_{15}	-0.04	-0.39	0.05	0.05	-0.27	-0.27					1.00	0.75	-0.04	0.04	-----	Vehicle	-0.39	-0.20	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	3041.86	5069.77	564.12	940.20
	U_{17} - L_{16}	-0.22	-0.61	0.05	0.05	-0.38	-0.38					1.00	0.75	-0.22	0.04	-----	Vehicle	-0.61	-0.28	-----	Vehicle	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	3631.09	6051.82	489.45	815.75
	U_{18} - L_{17}	-1.16	-1.63	0.07	0.07	-0.70	-0.70					1.00	0.75	-1.16	0.05	-----	Vehicle	-1.63	-0.52	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	2677.59	4462.65	273.01	455.01
	U_{19} - L_{18}	-1.07	-1.60	0.06	0.06	-0.61	-0.61					1.00	0.75	-1.07	0.04	-----	Vehicle	-1.60	-0.46	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	3755.26	6258.77	335.08	558.47
	U_{20} - L_{19}	-1.08	-1.67	0.03	0.03	-0.54	-0.54					1.00	0.75	-1.08	0.02	-----	Vehicle	-1.67	-0.40	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	6884.91	11474.86	379.83	633.05
Structure 2	U_0 - L_1	-1.14	-1.70	0.18	0.18	-0.82	-0.82					1.00	0.75	-1.14	0.14	-----	Vehicle	-1.70	-0.62	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	1243.90	2073.17	274.83	458.05
	U_1 - L_2	-1.31	-1.85	0.20	0.20	-0.75	-0.75					1.00	0.75	-1.31	0.15	-----	Vehicle	-1.85	-0.56	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	1168.03	1946.71	301.12	501.87
	U_2 - L_3	-1.13	-1.60	0.22	0.22	-0.71	-0.71					1.00	0.75	-1.13	0.16	-----	Vehicle	-1.60	-0.53	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	892.44	1487.40	269.18	448.63
	U_3 - L_4	-0.50	-0.90	0.14	0.14	-0.39	-0.39					1.00	0.75	-0.50	0.11	-----	Vehicle	-0.90	-0.30	-----	Vehicle	16.32	0.53	2	15.43	5	73.85	92.32	1	330.48196	330.5	1435.00	2391.66	514.34	857.23
	U_4 - L_5	-0.05	-0.40	0.11	0.11	-0.26	-0.26					1.00	0.75	-0.05	0.08	-----	Vehicle	-0.40	-0.19	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	1448.54	2414.24	588.15	980.26
	U_5 - L_6	0.27	-0.07	0.11	0.11	-0.20	-0.20					1.00	0.75	0.27	0.08	-----	Vehicle	-0.07	-0.15	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	1446.11	2410.19	745.12	1241.86
	U_6 - L_7	0.48	0.08	0.11	0.11	-0.09	-0.09					1.00	0.75	0.48	0.08	-----	Vehicle	0.08	-0.06	-----	Vehicle	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	1487.42	2479.04	1942.31	3237.18
	U_7 - L_7	-0.31	-1.10	0.00	0.00	-0.31	-0.31					1.00	0.75	-0.31	-----	-----	-----	-1.10	-0.23	-----	Vehicle	15.75	0.38	2	21.00	5	73.85	92.32	1	226.09125	226.1	-----	-----	444.54	740.91
	U_8 - L_8	-1.34	-1.86	0.00	0.00	-0.64	-0.64					1.00	0.75	-1.34	-----	-----	-----	-1.86	-0.48	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	-----	-----	318.06	530.10
	U_{10} - L_9	-1.44	-1.94	0.00	0.00	-0.67	-0.67					1.00	0.75	-1.44	-----	-----	-----	-1.94	-0.51	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	-----	-----	334.07	556.79
	U_{11} - L_{10}	-1.67	-2.23	0.00	0.00	-0.77	-0.77					1.00	0.75	-1.67	-----	-----	-----	-2.23	-0.58	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	-----	-----	318.49	530.82
	U_{12} - L_{11}	-1.62	-2.22	0.00	0.00	-0.89	-0.89					1.00	0.75	-1.62	-----	-----	-----	-2.22	-0.67	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	-----	-----	276.85	461.42
	U_{13} - L_{12}	-1.77	-2.38	0.06	0.06	-0.86	-0.86					1.00	0.75	-1.77	0.04	-----	Vehicle	-2.38	-0.64	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	4073.89	6789.81	262.02	436.70
	U_{14} - L_{13}	-1.00	-1.63	0.08	0.08	-0.53	-0.53					1.00	0.75	-1.00	0.06	-----	Vehicle	-1.63	-0.40	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	2843.97	4739.95	423.72	706.20
	U_{15} - L_{15}	-0.47	-1.03	0.15	0.15	-0.41	-0.41					1.00	0.75	-0.47	0.11	-----	Vehicle	-1.03	-0.31	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	1316.71	2194.51	462.57	770.96
	U_{16} - L_{16}	-1.08	-1.61	0.17	0.17	-0.75	-0.75					1.00	0.75	-1.08	0.13	-----	Vehicle	-1.61	-0.56	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	1114.02	1856.70	253.09	421.81
	U_{17} - L_{17}	-1.08	-1.63	0.12	0.12	-0.90	-0.90					1.00	0.75	-1.08	0.09	-----	Vehicle	-1.63	-0.68	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	1765.35	2942.25	226.58	377.64
	U_{18} - L_{18}	-1.09	-1.58	0.08	0.08	-0.89	-0.89					1.00	0.75	-1.09	0.06	-----	Vehicle	-1.58	-0.67	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	2322.10	3870.17	213.20	355.33
	U_{19} - L_{19}	-0.94	-1.42	0.06	0.06	-0.67	-0.67					1.00	0.75	-0.94	0.04	-----	Vehicle	-1.42	-0.50	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	3502.04	5836.74	285.09	475.16
	U_{20} - L_{20}	-0.31	-1.06	0.02	0.02	-0.42	-0.42					1.00	0.75	-0.31	0.01	-----	Vehicle	-1.06	-0.32	-----	Vehicle	15.75	0.38	2	21.00	5	73.85	92.32	1	226.09125	226.1	8199.03	13665.05	326.91	544.85
	U_{21} - L_{21}	-0.23	-0.57	0.01	0.01	-0.30	-0.30					1.00	0.75	-0.23	0.01	-----	Vehicle	-0.57	-0.22	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	16916.13	28193.56	508.74	847.89
	U_{21} - L_{22}	0.03	-0.31	0.05	0.05	-0.16	-0.16					1.00	0.75	0.03	0.04	-----	Vehicle	-0.31	-0.12	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	2815.55	4692.58	931.37	1552.28
	U_{23} - L_{22}	0.11	-0.23	0.02	0.02	-0.17	-0.17					1.00	0.75	0.11	0.01	-----	Vehicle	-0.23	-0.12	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	8442.87	14071.45	914.92	1524.86
	U_{24} - L_{23}	-0.12	-0.47	0.01	0.01	-0.28	-0.28					1.00	0.75	-0.12	0.01	-----	Vehicle	-0.47	-0.21	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	10868.31	18113.86	541.74	902.89
	U_{25} - L_{24}	-0.19	-0.96	0.02	0.02	-0.42	-0.42					1.00	0.75	-0.19	0.01	-----	Vehicle	-0.96	-0.31	-----	Vehicle	15.75	0.38	2	21.00	5	73.85	92.32	1	226.09125	226.1	7330.75	12217.92	332.62	554.36
	U_{26} - L_{25}	-0.84	-1.33	0.04	0.04	-0.61	-0.61					1.00	0.75	-0.84	0.03	-----	Vehicle	-1.33	-0.46	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	4695.87	7826.45	310.75	517.91
	U_{27} - L_{26}	-1.01	-1.51	0.05	0.05	-0.86	-0.86					1.00	0.75	-1.01	0.04	-----	Vehicle	-1.51	-0.64	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	3853.38	6422.30	222.99	371.64
	U_{28} - L_{27}	-1.07	-1.63	0.06	0.06	-0.88	-0.88					1.00	0.75	-1.07	0.04	-----	Vehicle	-1.63	-0.66	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	3755.22	6258.70	231.45	385.76
	U_{29} - L_{28}	-1.12	-1.67	0.08	0.08	-0.80	-0.80					1.00	0.75	-1.12	0.06	-----	Vehicle	-1.67	-0.60	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	2440.01	4066.69	237.57	395.95
	U_{30} - L_{29}	-0.53	-1.09	0.07	0.07	-0.45	-0.45					1.00	0.75	-0.53	0.06	-----	Vehicle	-1.09	-0.34	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	2598.46	4330.76	425.36	708.94
	U_{30} - L_{31}	-0.77	-1.41	0.13	0.13	-0.55	-0.55					1.00	0.75	-0.77	0.10	-----	Vehicle	-1.41	-0.41	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	1748.75	2914.58	413.18	688.63
	U_{31} - L_{32}	-1.50	-2.10	0.12	0.12	-0.90	-0.90					1.00	0.75	-1.50	0.09	-----	Vehicle	-2.10	-0.67	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	1883.64	3139.41	251.16	418.60
	U_{32} - L_{33}	-1.42	-2.00	0.05	0.05	-0.92	-0.92					1.00	0.75	-1.42	0.03	-----	Vehicle	-2.00	-0.69	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	5401.75	9002.92	266.53	444.22
	U_{33} - L_{34}	-1.55	-2.08	0.01	0.01	-0.76	-0.76					1.00	0.75	-1.55	0.01	-----	Vehicle	-2.08	-0.57	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	27620.44	46034.06	321.99	536.65
	U_{34} - L_{35}	-1.39	-1.88	0.00	0.00	-0.59	-0.59					1.00	0.75	-1.39	-----	-----	-----	-----	-1.88	-0.44	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	-----	-----	383.02	638.37
	U_{35} - L_{36}	-1.38	-1.88	0.00	0.00	-0.65	-0.65					1.00	0.75	-1.38	-----	-----	-----	-----	-1.88	-0.49	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	-----	-----	315.09	525.15
	U_{36} - L_{37}	-0.43	-1.20	0.00	0.00	-0.32	-0.32					1.00	0.75	-0.43	-----	-----	-----	-----	-1.20	-0.24	-----	Vehicle	15.75	0.38	2	21.00	5	73.85	92.32	1	226.09125	226.1	-----	-----	438.64	731.07
	U_{38} - L_{37}	0.53	0.13	0.08	0.08	-0.11	-0.11					1.00	0.75	0.53	0.06	-----	Vehicle	0.13	-0.08	-----	Vehicle	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	2081.84	3469.74	1576.19	2626.99
	U_{39} - L_{38}	0.39	0.04	0.10	0.10	-0.22	-0.22					1.00	0.75	0.39	0.08	-----	Vehicle	0.04	-0.16	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	1502.44	2504.07	697.67	1162.79
	U_{40} - L_{39}	0.07	-0.29	0.10	0.10	-0.29	-0.29					1.00	0.75	0.07	0.08	-----	Vehicle	-0.29	-0.22	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	1520.04	2533.41	525.37	875.61
	U_{41} - L_{40}	-0.36	-0.78	0.13	0.13	-0.46	-0.46					1.00	0.75	-0.36	0.10	-----	Vehicle	-0.78	-0.35	-----	Vehicle	16.32	0.53	2	15.43	5	73.85	92.32	1	330.48196	330.5	1591.12	2651.87	436.95	728.26
	U_{42} - L_{41}	-1.06	-1.54	0.18	0.18	-0.71	-0.71					1.00	0.75	-1.06	0.13	-----	Vehicle	-1.54	-0.53	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	1082.62	1804.37	267.36	445.61
	U_{43} - L_{42}	-1.22	-1.77	0.16	0.16	-0.71	-0.71					1.00	0.75	-1.22	0.12	-----	Vehicle	-1.77	-0.54	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	1459.57	2432.61	315.55	525.91
	U_{44} - L_{43}	-1.57	-2.14	0.11	0.11	-0.61	-0.61					1.00	0.75	-1.57	0.08	-----	Vehicle	-2.14	-0.46	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	2150.71	3584.52	368.26	613.77
Structure 3	U_0 - L_1	-0.75	-1.32	0.07	0.07	-0.64	-0.64					1.00	0.75	-0.75	0.05	-----	Vehicle	-1.32	-0.48	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	3173.54	5289.24	317.74	529.56
	U_1 - L_2	-1.05	-1.57	0.08	0.08	-0.58	-0.58					1.00	0.75	-1.05	0.06	-----	Vehicle	-1.57	-0.43	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	2753.63	4589.39	353.68	589.47
	U_2 - L_3	-1.08	-1.54	0.10	0.10	-0.64	-0.64					1.00	0.75	-1.08	0.07	-----	Vehicle	-1.54	-0.48	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	1986.86	3311.44	298.79	497.99
	U_3 - L_4	-0.22	-0.60	0.06	0.06	-0.37	-0.37					1.00	0.75	-0.22	0.04	-----	Vehicle	-0.60	-0.27	-----	Vehicle	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	3192.86	5321.43	504.18	840.31
	U_4 - L_5	-0.08	-0.42	0.05	0.05	-0.28	-0.28					1.00	0.75	-0.08	0.04	-----	Vehicle	-0.42	-0.21	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	2870.27	4783.79	536.13	893.55
	U_5 - L_6	0.35	0.03	0.05	0.05	-0.11	-0.11					1.00	0.75	0.35	0.04	-----	Vehicle	0.03	-0.08	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	2976.02	4960.04	1382.59	2304.31
	U_7 - L_6	-0.05	-0.39	0.00	0.00	-0.21	-0.21					1.00	0.75	-0.05	-----	-----	-----	-0.39	-0.16	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	-----	-----	709.12	1181.86
	U_8 - L_7	-0.51	-1.25	0.00	0.00	-0.54	-0.54					1.00	0.75	-0.51	-----	-----	-----	-1.25	-0.40	-----	Vehicle	16.00	0.44	2	18.29	5	73.85	92.32	1	267.96	268.0	-----	-----	305.21	508.69
	U_9 - L_8	-0.70	-1.19	0.00	0.00	-0.61	-0.61					1.00	0.75	-0.70	-----	-----	-----	-1.19	-0.46	-----	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	-----	-----	370.71	617.85
	U_{10} - L_9	-0.88	-1.76	0.00	0.00	-0.62	-0.62					1.00	0.75	-0.88	-----	-----	-----	-1.76	-0.47	-----	Vehicle	16.25	0.50	2	16.25	5	73.85	92.32	1	311.025	311.0	-----	-----	304.47	507.45
	U_{11} - L_{10}	-1.33	-2.21	0.00	0.00	-0.87	-0.87					1.00	0.75	-1.33	-----	-----	-----	-2.21	-0.65	-----	Vehicle	16.25	0.63	2	13.00	5	73.85	92.32	1	388.78125	388.8	-----	-----	272.65	454.42
	U_{12} - L_{11}	-0.81	-1.77	0.01	0.01	-0.56	-0.56					1.00	0.75	-0.81	0.01	-----	Vehicle	-1.77	-0.42	-----	Vehicle	16.25	0.63	2	13.00	5	73.85	92.32	1	388.78125	388.8	29987.65	49979.42	422.44	704.07
	U_{12} - L_{13}	-0.58	-1.05	0.00	0.00	-0.54	-0.54					1.00	0.75	-0.58	-----	-----	-----	-1.05	-0.40	-----	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	-----	-----	355.06	591.76
	U_{13} - $L_{

Columbia Parkway (HAM-471-0025)
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

			Member Forces from STAAD											Maximum Positive Shear				Minimum Negative Shear													Shear Force Rating			
			D		LL_{max}		LL_{min}		Pedestrian $Load_{max}$		Pedestrian $Load_{min}$																				Positive Shear Member		Negative Shear Member	
Location		Member	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Impact (1+I)	Lane Reduction	Dead (kips)	LL & Impact & Lane Reduct. (kips)	Pedestrian Load & Impact	Load Factor Groups &	Dead (kips)	LL & Impact & Lane Reduct.	Pedestrian Load & Impact	Load Factor Groups &	Depth of Web (inches)	Thickness of Web (inches	Number of Webs	D/t_W	k	6000 sqrt(k) sqrt(Fy)	7500 sqrt(k) sqrt(Fy)	C	V_P (kips)	V_U (kips)	Inventory RF	Operating RF	Inventory RF	Operating RF
South Truss - Upper Chord	Structure 1	U_0 - U_1	8.19	-2.89	1.72	1.72	-0.92	-0.92	0.75	0.75	-0.19	-0.19	1.00	0.90	8.19	1.55	0.75	Pedestrian	-2.89	-0.83	-0.19	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**51.03**	**63.79**	**109.69**	**182.82**
		U_1 - U_2	2.96	-4.47	1.03	1.03	-0.34	-0.34	0.07	0.07	-0.06	-0.06	1.00	0.90	2.96	0.93	0.07	Vehicle	-4.47	-0.30	-0.06	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**98.05**	**163.42**	**297.87**	**496.45**
		U_2 - U_3	2.48	-7.36	0.00	0.00	-0.89	-0.89	0.07	0.07	-0.09	-0.09	1.00	0.90	2.48	-----	0.07	Pedestrian	-7.36	-0.80	-0.09	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**1738.41**	**2173.02**	**109.92**	**183.20**
		U_3 - U_4	1.94	-4.95	0.17	0.17	-0.27	-0.27	0.00	0.00	-0.05	-0.05	1.00	0.90	1.94	0.16	-----	Vehicle	-4.95	-0.24	-0.05	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**584.89**	**974.82**	**366.77**	**611.28**
		U_4 - U_5	1.94	-4.56	0.07	0.07	-0.51	-0.51	0.00	0.00	-0.15	-0.15	1.00	0.90	1.94	0.06	-----	Vehicle	-4.56	-0.46	-0.15	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**1496.57**	**2494.29**	**195.35**	**325.58**
		U_5 - U_6	3.13	-7.41	0.04	0.04	-0.74	-0.74	0.00	0.00	-0.25	-0.25	1.00	0.90	3.13	0.03	-----	Vehicle	-7.41	-0.66	-0.25	Pedestrian	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**2657.20**	**4428.66**	**129.51**	**161.88**
		U_6 - U_7	6.57	-4.82	0.24	0.24	-0.32	-0.32	0.03	0.03	-0.09	-0.09	1.00	0.90	6.57	0.21	0.03	Vehicle	-4.82	-0.29	-0.09	Vehicle	14.00	0.75	2	9.33	5	73.85	92.32	1	401.94	401.9	**854.86**	**1424.76**	**634.10**	**1056.83**
		U_7 - U_8	-2.87	-15.47	0.47	0.47	-1.95	-1.95	0.00	0.00	-0.80	-0.80	1.00	0.90	-2.87	0.43	-----	Vehicle	-15.47	-1.76	-0.80	Pedestrian	14.00	1.00	2	7.00	5	73.85	92.32	1	535.92	535.9	**585.08**	**975.14**	**123.91**	**154.89**
		U_8 - U_9	17.77	5.14	2.61	2.61	0.00	0.00	0.85	0.85	0.00	0.00	1.00	0.90	17.77	2.35	0.85	Pedestrian	5.14	-----	-----	-----	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	**40.66**	**50.82**	-----	-----
		U_9 - U_{10}	7.55	-5.15	0.91	0.91	-0.15	-0.15	0.20	0.20	-0.04	-0.04	1.00	0.90	7.55	0.82	0.20	Vehicle	-5.15	-0.14	-0.04	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**108.08**	**180.13**	**646.92**	**1078.20**
		U_{10} - U_{11}	10.27	-1.06	1.32	1.32	-0.05	-0.05	0.37	0.37	0.00	0.00	1.00	0.90	10.27	1.19	0.37	Vehicle	-1.06	-0.04	-----	Vehicle	14.00	0.38	2	18.67	5	73.85	92.32	1	200.97	201.0	**72.95**	**121.58**	**2274.60**	**3791.00**
		U_{11} - U_{12}	8.07	-1.44	1.49	1.49	-0.02	-0.02	0.26	0.26	0.00	0.00	1.00	0.90	8.07	1.34	0.26	Vehicle	-1.44	-0.02	-----	Vehicle	14.00	0.50	2	14.00	5	73.85	92.32	1	267.96	268.0	**88.49**	**147.49**	**6202.43**	**10337.38**
		U_{12} - U_{13}	9.20	-6.26	0.25	0.25	-0.13	-0.13	0.20	0.20	0.00	0.00	1.00	0.90	9.20	0.22	0.20	Pedestrian	-6.26	-0.12	-----	Vehicle	14.00	1.33	2	5.24	5	73.85	92.32	1	715.3575	715.4	**1035.06**	**1293.83**	**2789.84**	**4649.74**
		U_{13} - U_{14}	7.06	-1.54	0.86	0.86	-0.03	-0.03	0.17	0.17	0.00	0.00	1.00	0.90	7.06	0.77	0.17	Vehicle	-1.54	-0.03	-----	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	**495.59**	**825.98**	**13819.28**	**23032.14**
		U_{14} - U_{15}	2.68	-5.43	0.09	0.09	-0.78	-0.78	0.02	0.02	-0.11	-0.11	1.00	0.90	2.68	0.08	0.02	Vehicle	-5.43	-0.70	-0.11	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	**4751.55**	**7919.25**	**544.51**	**907.51**
		U_{15} - U_{16}	9.21	-5.82	0.38	0.38	-0.31	-0.31	0.06	0.06	-0.12	-0.12	1.00	0.90	9.21	0.34	0.06	Vehicle	-5.82	-0.27	-0.12	Pedestrian	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	**1128.76**	**1881.26**	**1307.70**	**1634.62**
		U_{16} - U_{17}	2.12	-6.72	0.09	0.09	-0.66	-0.66	0.01	0.01	-0.14	-0.14	1.00	0.90	2.12	0.08	0.01	Vehicle	-6.72	-0.60	-0.14	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	**4553.28**	**7588.80**	**639.98**	**1066.63**
		U_{17} - U_{18}	5.43	-10.49	0.13	0.13	-0.78	-0.78	0.03	0.03	-0.26	-0.26	1.00	0.90	5.43	0.12	0.03	Vehicle	-10.49	-0.70	-0.26	Pedestrian	14.00	1.15	2	6.10	5	73.85	92.32	1	614.8725	614.9	**2326.13**	**3876.89**	**386.58**	**483.22**
		U_{18} - U_{19}	1.81	-7.91	0.09	0.09	-0.96	-0.96	0.02	0.02	-0.28	-0.28	1.00	0.90	1.81	0.08	0.02	Vehicle	-7.91	-0.86	-0.28	Vehicle	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	**1266.30**	**2110.50**	**119.75**	**199.59**
		U_{19} - U_{20}	1.62	-7.72	0.15	0.15	-0.87	-0.87	0.02	0.02	-0.22	-0.22	1.00	0.90	1.62	0.14	0.02	Vehicle	-7.72	-0.78	-0.22	Vehicle	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	**783.93**	**1306.55**	**132.44**	**220.73**
	Structure 2	U_0 - U_1	18.71	2.53	3.12	3.12	-1.49	-1.49	0.86	0.86	-0.13	-0.13	1.00	0.90	18.71	2.81	0.86	Vehicle	2.53	-1.34	-0.13	Vehicle	17.00	0.38	2	22.67	5	73.85	92.32	1	244.035	244.0	**36.10**	**60.17**	**84.90**	**141.49**
		U_1 - U_2	9.39	-4.45	0.95	0.95	-0.24	-0.24	0.13	0.13	-0.03	-0.03	1.00	0.90	9.39	0.85	0.13	Vehicle	-4.45	-0.22	-0.03	Vehicle	17.00	0.75	2	11.33	5	73.85	92.32	1	488.07	488.1	**257.15**	**428.58**	**1017.79**	**1696.32**
		U_2 - U_3	9.93	-1.26	1.42	1.42	-0.47	-0.47	0.32	0.32	-0.07	-0.07	1.00	0.90	9.93	1.27	0.32	Vehicle	-1.26	-0.43	-0.07	Vehicle	17.00	0.56	2	15.11	5	73.85	92.32	1	366.0525	366.1	**127.89**	**213.16**	**395.09**	**658.48**
		U_3 - U_4	8.70	-7.19	0.85	0.85	-0.26	-0.26	0.11	0.11	-0.03	-0.03	1.00	0.90	8.70	0.76	0.11	Vehicle	-7.19	-0.24	-0.03	Vehicle	17.00	1.25	2	6.80	5	73.85	92.32	1	813.45	813.5	**486.81**	**811.35**	**1573.91**	**2623.18**
		U_4 - U_5	5.86	-4.47	0.56	0.56	-0.35	-0.35	0.14	0.14	-0.05	-0.05	1.00	0.90	5.86	0.50	0.14	Vehicle	-4.47	-0.32	-0.05	Vehicle	17.00	1.50	2	5.67	5	73.85	92.32	1	976.14	976.1	**885.34**	**1475.57**	**1413.65**	**2356.08**
		U_5 - U_6	1.29	-8.98	0.36	0.36	-0.52	-0.52	0.00	0.00	-0.15	-0.15	1.00	0.90	1.29	0.33	-----	Vehicle	-8.98	-0.46	-0.15	Vehicle	17.00	1.50	2	5.67	5	73.85	92.32	1	976.14	976.1	**1380.45**	**2300.75**	**958.53**	**1597.55**
		U_6 - U_7	6.54	-9.22	0.89	0.89	-0.25	-0.25	0.09	0.09	0.00	0.00	1.00	0.90	6.54	0.80	0.09	Vehicle	-9.22	-0.22	-----	Vehicle	17.00	1.25	2	6.80	5	73.85	92.32	1	813.45	813.5	**463.81**	**773.02**	**1657.28**	**2762.13**
		U_7 - U_8	6.96	-8.51	0.25	0.25	-1.34	-1.34	0.00	0.00	-0.18	-0.18	1.00	0.90	6.96	0.23	-----	Vehicle	-8.51	-1.21	-0.18	Vehicle	17.00	1.25	2	6.80	5	73.85	92.32	1	813.45	813.5	**1636.95**	**2728.26**	**306.85**	**511.41**
		U_8 - U_9	2.04	-12.38	0.05	0.05	-1.12	-1.12	0.00	0.00	-0.25	-0.25	1.00	0.90	2.04	0.05	-----	Vehicle	-12.38	-1.01	-0.25	Vehicle	17.00	1.06	2	8.00	5	73.85	92.32	1	691.4325	691.4	**6925.87**	**11543.12**	**308.67**	**514.45**
		U_9 - U_{10}	-0.19	-11.71	0.00	0.00	-1.96	-1.96	0.00	0.00	-0.31	-0.31	1.00	0.90	-0.19	-----	-----	-----	-11.71	-1.76	-0.31	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	-----	-----	**70.47**	**117.46**
		U_{10} - U_{11}	3.22	-11.03	0.28	0.28	-1.21	-1.21	0.00	0.00	-0.20	-0.20	1.00	0.90	3.22	0.25	-----	Vehicle	-11.03	-1.09	-0.20	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	**515.61**	**859.35**	**114.21**	**190.35**
		U_{11} - U_{12}	1.81	-13.56	0.25	0.25	-1.55	-1.55	0.02	0.02	-0.32	-0.32	1.00	0.90	1.81	0.22	0.02	Vehicle	-13.56	-1.40	-0.32	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	**583.85**	**973.09**	**88.14**	**146.89**
		U_{12} - U_{13}	10.30	-7.34	0.48	0.48	-0.58	-0.58	0.06	0.06	-0.06	-0.06	1.00	0.90	10.30	0.43	0.06	Vehicle	-7.34	-0.52	-0.06	Vehicle	17.00	0.94	2	9.07	5	73.85	92.32	1	610.0875	610.1	**644.21**	**1073.68**	**535.60**	**892.67**
		U_{13} - U_{14}	-14.76	-30.33	1.18	1.18	-3.98	-3.98	0.00	0.00	-0.99	-0.99	1.00	0.90	-14.76	1.06	-----	Vehicle	-30.33	-3.58	-0.99	Vehicle	17.00	1.31	2	6.48	5	73.85	92.32	1	854.1225	854.1	**380.50**	**634.17**	**105.00**	**175.00**
		U_{14} - U_{15}	28.72	13.15	4.27	4.27	-0.50	-0.50	0.97	0.97	0.00	0.00	1.00	0.90	28.72	3.84	0.97	Vehicle	13.15	-0.45	-----	Vehicle	17.00	1.31	2	6.48	5	73.85	92.32	1	854.1225	854.1	**98.07**	**163.45**	**900.76**	**1501.26**
		U_{15} - U_{16}	7.66	-8.84	1.02	1.02	-0.41	-0.41	0.10	0.10	-0.07	-0.07	1.00	0.90	7.66	0.92	0.10	Vehicle	-8.84	-0.36	-0.07	Vehicle	17.00	1.06	2	8.00	5	73.85	92.32	1	691.4325	691.4	**341.28**	**568.81**	**860.96**	**1434.94**
		U_{16} - U_{17}	10.20	-1.59	1.30	1.30	-0.21	-0.21	0.27	0.27	-0.02	-0.02	1.00	0.90	10.20	1.17	0.27	Vehicle	-1.59	-0.19	-0.02	Vehicle	17.00	0.56	2	15.11	5	73.85	92.32	1	366.0525	366.1	**138.74**	**231.24**	**884.63**	**1474.39**
		U_{17} - U_{18}	9.53	-4.26	1.42	1.42	-0.33	-0.33	0.21	0.21	-0.04	-0.04	1.00	0.90	9.53	1.28	0.21	Vehicle	-4.26	-0.29	-0.04	Vehicle	17.00	0.38	2	22.67	5	73.85	92.32	1	244.035	244.0	**83.83**	**139.72**	**376.33**	**627.22**
		U_{18} - U_{19}	9.52	-3.01	0.96	0.96	-0.18	-0.18	0.25	0.25	-0.01	-0.01	1.00	0.90	9.52	0.86	0.25	Vehicle	-3.01	-0.16	-0.01	Vehicle	17.00	0.38	2	22.67	5	73.85	92.32	1	244.035	244.0	**123.75**	**206.25**	**699.67**	**1166.11**
		U_{19} - U_{20}	6.34	-3.80	1.33	1.33	-0.09	-0.09	0.11	0.11	0.00	0.00	1.00	0.90	6.34	1.20	0.11	Vehicle	-3.80	-0.08	0.00	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	**106.44**	**177.40**	**1687.86**	**2813.11**
		U_{20} - U_{21}	7.04	-6.20	0.50	0.50	-0.62	-0.62	0.17	0.17	0.00	0.00	1.00	0.90	7.04	0.45	0.17	Pedestrian	-6.20	-0.56	-----	Vehicle	17.00	0.81	2	10.46	5	73.85	92.32	1	528.7425	528.7	**517.55**	**646.94**	**429.29**	**715.49**
		U_{21} - U_{22}	6.53	-6.48	0.66	0.66	-0.13	-0.13	0.06	0.06	-0.02	-0.02	1.00	0.90	6.53	0.60	0.06	Vehicle	-6.48	-0.12	-0.02	Vehicle	17.00	0.81	2	10.46	5	73.85	92.32	1	528.7425	528.7	**401.80**	**669.67**	**2084.62**	**3474.37**
		U_{22} - U_{23}	6.59	-6.58	0.15	0.15	-0.71	-0.71	0.03	0.03	-0.07	-0.07	1.00	0.90	6.59	0.14	0.03	Vehicle	-6.58	-0.64	-0.07	Vehicle	17.00	0.81	2	10.46	5	73.85	92.32	1	528.7425	528.7	**1743.49**	**2905.82**	**376.78**	**627.97**
		U_{23} - U_{24}	5.44	-7.80	0.21	0.21	-0.77	-0.77	0.02	0.02	-0.22	-0.22	1.00	0.90	5.44	0.19	0.02	Vehicle	-7.80	-0.69	-0.22	Vehicle	17.00	0.81	2	10.46	5	73.85	92.32	1	528.7425	528.7	**1280.02**	**2133.37**	**345.39**	**575.65**
		U_{24} - U_{25}	3.86	-6.29	0.11	0.11	-1.31	-1.31	0.01	0.01	-0.10	-0.10	1.00	0.90	3.86	0.09	0.01	Vehicle	-6.29	-1.18	-0.10	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	**1366.01**	**2276.69**	**108.09**	**180.15**
		U_{25} - U_{26}	2.64	-9.89	0.24	0.24	-1.23	-1.23	0.03	0.03	-0.27	-0.27	1.00	0.90	2.64	0.22	0.03	Vehicle	-9.89	-1.10	-0.27	Vehicle	17.00	0.38	2	22.67	5	73.85	92.32	1	244.035	244.0	**516.27**	**860.46**	**96.62**	**161.03**
		U_{26} - U_{27}	4.46	-9.33	0.38	0.38	-1.12	-1.12	0.03	0.03	-0.19	-0.19	1.00	0.90	4.46	0.34	0.03	Vehicle	-9.33	-1.00	-0.19	Vehicle	17.00	0.38	2	22.67	5	73.85	92.32	1	244.035	244.0	**321.51**	**535.84**	**106.66**	**177.77**
		U_{27} - U_{28}	1.06	-10.73	0.27	0.27	-1.39	-1.39	0.03	0.03	-0.29	-0.29	1.00	0.90	1.06	0.24	0.03	Vehicle	-10.73	-1.25	-0.29	Vehicle	17.00	0.56	2	15.11	5	73.85	92.32	1	366.0525	366.1	**700.42**	**1167.37**	**129.90**	**216.51**
		U_{28} - U_{29}	9.64	-6.86	0.47	0.47	-0.47	-0.47	0.04	0.04	-0.06	-0.06	1.00	0.90	9.64	0.42	0.04	Vehicle	-6.86	-0.43	-0.06	Vehicle	17.00	1.06	2	8.00	5	73.85	92.32	1	691.4325	691.4	**747.11**	**1245.19**	**738.42**	**1230.70**
		U_{29} - U_{30}	-12.69	-28.27	1.46	1.46	-3.86	-3.86	0.00	0.00	-0.96	-0.96	1.00	0.90	-12.69	1.31	-----	Vehicle	-28.27	-3.47	-0.96	Vehicle	17.00	1.31	2	6.48	5	73.85	92.32	1	854.1225	854.1	**306.01**	**510.02**	**108.73**	**181.22**
		U_{30} - U_{31}	31.65	16.08	4.86	4.86	-0.33	-0.33	1.05	1.05	0.00	0.00	1.00	0.90	31.65	4.37	1.05	Vehicle	16.08	-0.30	-----	Vehicle	17.00	1.31	2	6.48	5	73.85	92.32	1	854.1225	854.1	**85.77**	**142.94**	**1343.50**	**2239.17**
		U_{31} - U_{32}	8.09	-9.55	0.65	0.65	-0.48	-0.48	0.09	0.09	-0.06	-0.06	1.00	0.90	8.09	0.59	0.09	Vehicle	-9.55	-0.43	-0.06	Vehicle	17.00	0.94	2	9.07	5	73.85	92.32	1	610.0875	610.1	**470.86**	**784.77**	**645.26**	**1075.43**
		U_{32} - U_{33}	13.14	-2.23	1.41	1.41	-0.18	-0.18	0.30	0.30	-0.01	-0.01	1.00	0.90	13.14	1.27	0.30	Vehicle	-2.23	-0.16	-0.01	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	**97.06**	**161.76**	**794.05**	**1323.42**
		U_{33} - U_{34}	11.33	-2.92	1.30	1.30	-0.14	-0.14	0.22	0.22	-0.01	-0.01	1.00	0.90	11.33	1.17	0.22	Vehicle	-2.92	-0.12	-0.01	Vehicle	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	**106.25**	**177.09**	**1067.10**	**1778.50**
		U_{34} - U_{35}	11.30	-0.22	1.22	1.22	0.00	0.00	0.29	0.29	0.00	0.00	1.00	0.90	11.30	1.10	0.29	Vehicle	-0.22	-----	-----	-----	17.00	0.44	2	19.43	5	73.85	92.32	1	284.7075	284.7	**113.32**	**188.86**	-----	-----
		U_{35} - U_{36}	12.24	-2.18	1.15	1.15	0.00	0.00	0.25	0.25	0.00	0.00	1.00	0.90	12.24	1.04	0.25	Vehicle	-2.18	-----	-----	-----	17.00	1.06	2	8.00	5	73.85	92.32	1	691.4325	691.4	**300.19**	**500.32**	-----	-----
		U_{36} - U_{37}	7.78	-7.69	1.36	1.36	-0.27	-0.27	0.13	0.13	0.00	0.00	1.00	0.90	7.78	1.22	0.13	Vehicle	-7.69	-0.25	0.00	Vehicle	17.00	1.25	2	6.80	5	73.85	92.32	1	813.45	813.5	**302.92**	**504.86**	**1503.74**	**2506.24**
		U_{37} - U_{38}	9.81	-5.96	0.38	0.38	-1.08	-1.08	0.03	0.03	-0.09	-0.09	1.00	0.90	9.81	0.34	0.03	Vehicle	-5.96	-0.97	-0.09	Vehicle	17.00	1.25	2	6.80	5	73.85	92.32	1	813.45	813.5	**1083.42**	**1805.70**	**382.93**	**638.22**
		U_{38} - U_{39}	8.20	-2.06	0.47	0.47	-0.41	-0.41	0.13	0.13	0.00	0.00	1.00	0.90	8.20	0.42	0.13	Vehicle	-2.06	-0.37	-----	Vehicle	17.00	1.50	2	5.67	5	73.85	92.32	1	976.14	976.1	**1062.48**	**1770.80**	**1223.55**	**2039.25**
		U_{39} - U_{40}	3.71	-6.62	0.36	0.36	-0.89	-0.89	0.06	0.06	-0.20	-0.20	1.00	0.90	3.71	0.33	0.06	Vehicle	-6.62	-0.80	-0.20	Vehicle	17.00	1.50	2	5.67	5	73.85	92.32	1	976.14	976.1	**1368.44**	**2280.73**	**559.38**	**932.30**
		U_{40} - U_{41}	7.22	-8.66	0.19	0.19	-0.69	-0.69	0.02	0.02	-0.07	-0.07	1.00	0.90	7.22	0.17	0.02	Vehicle	-8.66	-0.62	-0.07	Vehicle	17.00	1.25	2	6.80	5	73.85	92.32	1	813.45	813.5	**2125.46**	**3542.43**	**597.93**	**996.56**
		U_{41} - U_{42}	1.01	-10.18	0.43	0.43	-1.39	-1.39	0.06	0.06	-0.30	-0.30	1.00	0.90	1.01	0.39	0.06	Vehicle	-10.18	-1.25	-0.30	Vehicle	17.00	0.56	2	15.11	5	73.85	92.32	1	366.0525	366.1	**437.02**	**728.36**	**130.45**	**217.41**
		U_{42} - U_{43}	3.31	-10.54	0.24	0.24	-1.15	-1.15	0.02	0.02	-0.20	-0.20	1.00	0.90	3.31	0.21	0.02	Vehicle	-10.54	-1.04	-0.20	Vehicle	17.00	0.75	2	11.33	5	73.85	92.32	1	488.07	488.1	**1046.79**	**1744.64**	**210.99**	**351.64**
		U_{43} - U_{44}	4.39	-11.79	0.45	0.45	-0.87	-0.87	0.08	0.08	-0.37	-0.37	1.00	0.90	4.39	0.41	0.08	Vehicle	-11.79	-0.78	-0.37	Pedestrian	17.00	0.38	2	22.67	5	73.85	92.32	1	244.035	244.0	**269.80**	**449.66**	**122.76**	**153.45**
	Structure 3	U_0 - U_1	14.18	4.83	2.15	2.15	-0.84	-0.84	0.84	0.84	-0.05	-0.05	1.00	0.90	14.18	1.93	0.84	Pedestrian	4.83	-0.76	-0.05	Vehicle	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	**47.94**	**59.92**	**146.98**	**244.96**
		U_1 - U_2	6.82	-2.91	0.97	0.97	-0.12	-0.12	0.18	0.18	-0.02	-0.02	1.00	0.90	6.82	0.87	0.18	Vehicle	-2.91	-0.11	-0.02	Vehicle	14.00	0.44	2	16.00	5	73.85	92.32	1	234.465	234.5	**119.15**	**198.58**	**994.13**	**1656.89**
		U_2 - U_3	10.42	-5.49	0.84	0.84	-0.16	-0.16	0.29	0.29	-0.03	-0.03	1.00	0.90	10.42	0.76	0.29	Pedestrian	-5.49	-0.14	-0.03	Vehicle	14.00	1.15	2	6.10	5	73.85	92.32	1	614.8725	614.9	**354.45**	**443.06**	**1947.86**	**3246.43**
		U_3 - U_4	6.43	-2.41	1.51	1.51	-0.13	-0.13	0.16	0.16	-0.02	-0.02	1.00	0.90	6.43	1.35	0.16	Vehicle	-2.41	-0.12	-0.02	Vehicle	14.00	1.56	2	4.48	5	73.85	92.32	1	837.375	837.4	**282.48**	**470.80**	**3290.91**	**5484.84**
		U_4 - U_5	5.41	-9.62	0.00	0.00	-1.06	-1.06

Columbia Parkway (HAM-471-0025)
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans

Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

Location	Member	Member Forces from STAAD: D Start (kips)	D End (kips)	LL_{max} Start (kips)	LL_{max} End (kips)	LL_{min} Start (kips)	LL_{min} End (kips)	Pedestrian $Load_{max}$ Start (kips)	Pedestrian $Load_{max}$ End (kips)	Pedestrian $Load_{min}$ Start (kips)	Pedestrian $Load_{min}$ End (kips)	Impact (1+I)	Lane Reduction	Maximum Positive Shear: Dead (kips)	LL & Impact & Lane Reduct. (kips)	Pedestrian Load & Impact	Load Factor Groups &	Minimum Negative Shear: Dead (kips)	LL & Impact & Lane Reduct.	Pedestrian Load & Impact	Load Factor Groups &	Depth of Web (inches)	Thickness of Web (inches	Number of Webs	D/t_W	k	6000 sqrt(k) sqrt(Fy)	7500 sqrt(k) sqrt(Fy)	C	V_P (kips)	V_U (kips)	Shear Force Rating: Positive Shear Member Inventory RF	Positive Shear Member Operating RF	Negative Shear Member Inventory RF	Negative Shear Member Operating RF
Structure 1	L_0 - L_1	4.43	-2.13	0.77	0.77	-0.27	-0.27	0.18	0.18	-0.05	-0.05	1.00	0.90	4.43	0.69	0.18	Vehicle	-2.13	-0.24	-0.05	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**149.13**	**248.55**	**435.81**	**726.35**
	L_1 - L_2	6.00	-2.28	1.14	1.14	-0.45	-0.45	0.19	0.19	-0.09	-0.09	1.00	0.90	6.00	1.02	0.19	Vehicle	-2.28	-0.41	-0.09	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**100.17**	**166.94**	**258.36**	**430.60**
	L_2 - L_3	2.92	-3.66	0.00	0.00	-0.61	-0.61	0.04	0.04	-0.05	-0.05	1.00	0.90	2.92	-----	0.04	Pedestrian	-3.66	-0.55	-0.05	Vehicle	15.00	0.62	2	12.14	5	73.85	92.32	1	354.8556	354.9	**5143.65**	**6429.57**	**296.27**	**493.79**
	L_3 - L_4	3.19	-5.19	0.23	0.23	-0.55	-0.55	0.02	0.02	-0.10	-0.10	1.00	0.90	3.19	0.21	0.02	Vehicle	-5.19	-0.50	-0.10	Vehicle	15.00	0.62	2	12.14	5	73.85	92.32	1	354.8556	354.9	**775.22**	**1292.03**	**323.40**	**538.99**
	L_4 - L_5	1.06	-8.32	0.17	0.17	-0.75	-0.75	0.00	0.00	-0.22	-0.22	1.00	0.90	1.06	0.15	-----	Vehicle	-8.32	-0.68	-0.22	Vehicle	15.00	0.52	2	14.42	5	73.85	92.32	1	298.584	298.6	**896.54**	**1494.24**	**196.77**	**327.95**
	L_5 - L_6	-0.11	-8.64	0.00	0.00	-0.93	-0.93	0.00	0.00	-0.28	-0.28	1.00	0.90	-0.11	-----	-----	-----	-8.64	-0.84	-0.28	Pedestrian	15.00	0.77	2	9.74	5	73.85	92.32	1	442.134	442.1	-----	-----	**236.93**	**296.16**
	L_6 - L_7	4.46	-5.99	0.78	0.78	-0.59	-0.59	0.18	0.18	-0.20	-0.20	1.00	0.90	4.46	0.70	0.18	Vehicle	-5.99	-0.53	-0.20	Pedestrian	15.00	1.22	2	6.17	5	73.85	92.32	1	698.2272	698.2	**456.42**	**760.70**	**581.40**	**726.75**
	L_7 - L_8	-9.36	-17.66	0.37	0.37	-2.88	-2.88	0.00	0.00	-1.06	-1.06	1.00	0.90	-9.36	0.33	-----	Vehicle	-17.66	-2.60	-1.06	Pedestrian	15.00	1.62	2	4.64	5	73.85	92.32	1	927.9072	927.9	**1295.94**	**2159.91**	**152.17**	**190.22**
	L_8 - L_9	18.84	10.87	3.18	3.18	-0.22	-0.22	1.10	1.10	0.00	0.00	1.00	0.90	18.84	2.86	1.10	Pedestrian	10.87	-0.19	-----	Vehicle	15.00	1.62	2	4.64	5	73.85	92.32	1	927.9072	927.9	**140.22**	**175.28**	**2246.97**	**3744.95**
	L_9 - L_{10}	11.17	-1.76	1.11	1.11	-0.38	-0.38	0.27	0.27	-0.14	-0.14	1.00	0.90	11.17	1.00	0.27	Vehicle	-1.76	-0.34	-0.14	Pedestrian	15.00	1.22	2	6.17	5	73.85	92.32	1	698.2272	698.2	**315.02**	**525.04**	**899.17**	**1123.96**
	L_{10} - L_{11}	10.70	2.17	1.38	1.38	0.00	0.00	0.41	0.41	0.00	0.00	1.00	0.90	10.70	1.24	0.41	Vehicle	2.17	-----	-----	-----	15.00	0.52	2	14.42	5	73.85	92.32	1	298.584	298.6	**105.94**	**176.57**	-----	-----
	L_{11} - L_{12}	12.21	-0.42	1.31	1.31	-0.04	-0.04	0.26	0.26	0.00	0.00	1.00	0.90	12.21	1.18	0.26	Vehicle	-0.42	-0.03	-----	Vehicle	15.00	0.52	2	14.42	5	73.85	92.32	1	298.584	298.6	**111.01**	**185.02**	**4245.57**	**7075.96**
	L_{12} - L_{13}	6.63	-2.92	0.16	0.16	-0.07	-0.07	0.13	0.13	0.00	0.00	1.00	0.90	6.63	0.14	0.13	Pedestrian	-2.92	-0.06	-----	Vehicle	15.00	1.02	2	7.35	5	73.85	92.32	1	585.684	585.7	**1338.04**	**1672.55**	**4324.73**	**7207.88**
	L_{13} - L_{14}	12.80	1.62	1.18	1.18	-0.08	-0.08	0.31	0.31	0.00	0.00	1.00	0.90	12.80	1.06	0.31	Vehicle	1.62	-0.07	-----	Vehicle	15.00	1.46	2	5.15	5	73.85	92.32	1	836.8965	836.9	**355.87**	**593.12**	**5446.31**	**9077.18**
	L_{14} - L_{15}	1.98	-10.69	0.23	0.23	-1.02	-1.02	0.05	0.05	-0.21	-0.21	1.00	0.90	1.98	0.20	0.05	Vehicle	-10.69	-0.92	-0.21	Vehicle	15.00	1.81	2	4.15	5	73.85	92.32	1	1037.8665	1037.9	**2359.63**	**3932.72**	**514.82**	**858.03**
	L_{15} - L_{16}	5.99	-3.43	0.50	0.50	-0.07	-0.07	0.03	0.03	-0.07	-0.07	1.00	0.90	5.99	0.45	0.03	Vehicle	-3.43	-0.06	-0.07	Pedestrian	15.00	1.81	2	4.15	5	73.85	92.32	1	1037.8665	1037.9	**1062.86**	**1771.44**	**4645.31**	**5806.64**
	L_{16} - L_{17}	-0.84	-11.84	0.15	0.15	-0.99	-0.99	0.02	0.02	-0.20	-0.20	1.00	0.90	-0.84	0.13	0.02	Vehicle	-11.84	-0.89	-0.20	Vehicle	15.00	1.34	2	5.61	5	73.85	92.32	1	767.9925	768.0	**2719.99**	**4533.32**	**388.67**	**647.78**
	L_{17} - L_{18}	2.19	-9.46	0.11	0.11	-0.64	-0.64	0.03	0.03	-0.24	-0.24	1.00	0.90	2.19	0.10	0.03	Vehicle	-9.46	-0.58	-0.24	Pedestrian	15.00	0.90	2	8.33	5	73.85	92.32	1	516.78	516.8	**2395.96**	**3993.26**	**379.57**	**474.47**
	L_{18} - L_{19}	0.84	-11.52	0.09	0.09	-0.84	-0.84	0.02	0.02	-0.26	-0.26	1.00	0.90	0.84	0.08	0.02	Vehicle	-11.52	-0.76	-0.26	Pedestrian	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**1274.15**	**2123.59**	**130.81**	**163.51**
	L_{19} - L_{20}	1.28	-8.50	0.07	0.07	-0.82	-0.82	0.02	0.02	-0.32	-0.32	1.00	0.90	1.28	0.07	0.02	Vehicle	-8.50	-0.74	-0.32	Pedestrian	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**1601.83**	**2669.72**	**127.77**	**159.71**
Structure 2	L_0 - L_1	8.88	-1.10	1.20	1.20	-0.25	-0.25	0.23	0.23	-0.03	-0.03	1.00	0.90	8.88	1.08	0.23	Vehicle	-1.10	-0.22	-0.03	Vehicle	18.00	0.45	2	20.00	5	73.85	92.32	1	310.068	310.1	**127.68**	**212.80**	**638.20**	**1063.67**
	L_1 - L_2	13.41	-0.38	1.22	1.22	-0.32	-0.32	0.25	0.25	-0.04	-0.04	1.00	0.90	13.41	1.10	0.25	Vehicle	-0.38	-0.29	-0.04	Vehicle	18.00	0.45	2	20.00	5	73.85	92.32	1	310.068	310.1	**122.91**	**204.85**	**496.11**	**826.85**
	L_2 - L_3	9.63	-1.36	1.08	1.08	-0.36	-0.36	0.25	0.25	-0.05	-0.05	1.00	0.90	9.63	0.97	0.25	Vehicle	-1.36	-0.33	-0.05	Vehicle	18.00	0.83	2	10.91	5	73.85	92.32	1	568.458	568.5	**264.71**	**441.19**	**802.79**	**1337.98**
	L_3 - L_4	13.25	-0.94	1.29	1.29	-0.38	-0.38	0.21	0.21	-0.05	-0.05	1.00	0.90	13.25	1.16	0.21	Vehicle	-0.94	-0.34	-0.05	Vehicle	18.00	1.19	2	7.57	5	73.85	92.32	1	819.6705	819.7	**318.26**	**530.43**	**1113.31**	**1855.52**
	L_4 - L_5	9.60	-8.29	0.13	0.13	-0.29	-0.29	0.07	0.07	-0.04	-0.04	1.00	0.90	9.60	0.12	0.07	Pedestrian	-8.29	-0.26	-0.04	Vehicle	18.00	1.56	2	5.76	5	73.85	92.32	1	1076.625	1076.6	**3518.86**	**4398.58**	**1897.88**	**3163.13**
	L_5 - L_6	11.25	-2.22	1.06	1.06	-0.51	-0.51	0.12	0.12	-0.06	-0.06	1.00	0.90	11.25	0.95	0.12	Vehicle	-2.22	-0.45	-0.06	Vehicle	18.00	1.72	2	5.24	5	73.85	92.32	1	1184.2875	1184.3	**565.34**	**942.23**	**1199.69**	**1999.49**
	L_6 - L_7	3.51	-10.30	0.02	0.02	-0.69	-0.69	0.00	0.00	-0.07	-0.07	1.00	0.90	3.51	0.02	-----	Vehicle	-10.30	-0.62	-0.07	Vehicle	18.00	1.75	2	5.16	5	73.85	92.32	1	1202.949	1202.9	**27934.31**	**46557.19**	**881.55**	**1469.25**
	L_7 - L_8	2.60	-12.44	0.32	0.32	-1.00	-1.00	0.00	0.00	-0.24	-0.24	1.00	0.90	2.60	0.29	-----	Vehicle	-12.44	-0.90	-0.24	Vehicle	18.00	1.23	2	7.35	5	73.85	92.32	1	844.074	844.1	**1347.26**	**2245.43**	**425.84**	**709.73**
	L_8 - L_9	-0.35	-14.52	0.19	0.19	-1.30	-1.30	0.00	0.00	-0.19	-0.19	1.00	0.90	-0.35	0.17	0.00	Vehicle	-14.52	-1.17	-0.19	Vehicle	18.00	0.96	2	9.37	5	73.85	92.32	1	661.7655	661.8	**1816.05**	**3026.75**	**253.22**	**422.03**
	L_9 - L_{10}	-2.85	-13.17	0.15	0.15	-1.84	-1.84	0.00	0.00	-0.34	-0.34	1.00	0.90	-2.85	0.13	-----	Vehicle	-13.17	-1.66	-0.34	Vehicle	18.00	0.70	2	12.86	5	73.85	92.32	1	482.328	482.3	**1718.96**	**2864.93**	**129.59**	**215.98**
	L_{10} - L_{11}	-0.58	-12.80	0.47	0.47	-1.44	-1.44	0.05	0.05	-0.23	-0.23	1.00	0.90	-0.58	0.42	0.05	Vehicle	-12.80	-1.30	-0.23	Vehicle	18.00	0.60	2	15.00	5	73.85	92.32	1	413.424	413.4	**455.79**	**759.65**	**141.31**	**235.51**
	L_{11} - L_{12}	-1.75	-17.48	0.01	0.01	-1.68	-1.68	0.00	0.00	-0.37	-0.37	1.00	0.90	-1.75	0.01	-----	Vehicle	-17.48	-1.51	-0.37	Vehicle	18.00	0.96	2	9.33	5	73.85	92.32	1	664.6365	664.6	**42750.90**	**71251.51**	**195.83**	**326.38**
	L_{12} - L_{13}	8.95	-4.77	1.74	1.74	-1.11	-1.11	0.30	0.30	-0.17	-0.17	1.00	0.90	8.95	1.57	0.30	Vehicle	-4.77	-1.00	-0.17	Vehicle	18.00	1.41	2	6.37	5	73.85	92.32	1	973.269	973.3	**283.42**	**472.36**	**445.58**	**742.63**
	L_{13} - L_{14}	-25.08	-38.97	1.36	1.36	-6.11	-6.11	0.00	0.00	-1.43	-1.43	1.00	0.90	-25.08	1.22	-----	Vehicle	-38.97	-5.50	-1.43	Vehicle	18.00	1.73	2	5.22	5	73.85	92.32	1	1188.594	1188.6	**460.14**	**766.90**	**95.57**	**159.28**
	L_{14} - L_{15}	38.11	24.33	6.02	6.02	-1.25	-1.25	1.40	1.40	0.00	0.00	1.00	0.90	38.11	5.42	1.40	Vehicle	24.33	-1.13	-----	Vehicle	18.00	1.73	2	5.22	5	73.85	92.32	1	1188.594	1188.6	**97.05**	**161.75**	**500.20**	**833.67**
	L_{15} - L_{16}	2.20	-10.15	0.66	0.66	-1.25	-1.25	0.09	0.09	-0.29	-0.29	1.00	0.90	2.20	0.59	0.09	Vehicle	-10.15	-1.12	-0.29	Vehicle	18.00	1.41	2	6.37	5	73.85	92.32	1	973.269	973.3	**755.15**	**1258.59**	**395.46**	**659.09**
	L_{16} - L_{17}	15.46	1.39	1.48	1.48	-0.14	-0.14	0.38	0.38	0.00	0.00	1.00	0.90	15.46	1.33	0.38	Vehicle	1.39	-0.13	-----	Vehicle	18.00	1.12	2	8.06	5	73.85	92.32	1	769.428	769.4	**259.82**	**433.03**	**2845.34**	**4742.23**
	L_{17} - L_{18}	10.48	-1.25	1.48	1.48	-0.55	-0.55	0.22	0.22	-0.08	-0.08	1.00	0.90	10.48	1.33	0.22	Vehicle	-1.25	-0.49	-0.08	Vehicle	18.00	0.70	2	12.86	5	73.85	92.32	1	482.328	482.3	**162.85**	**271.41**	**451.49**	**752.48**
	L_{18} - L_{19}	10.20	0.17	1.00	1.00	-0.09	-0.09	0.27	0.27	0.00	0.00	1.00	0.90	10.20	0.90	0.27	Vehicle	0.17	-0.08	-----	Vehicle	18.00	0.50	2	18.00	5	73.85	92.32	1	344.52	344.5	**170.05**	**283.41**	**1880.73**	**3134.56**
	L_{19} - L_{20}	9.84	-2.71	1.30	1.30	-0.26	-0.26	0.12	0.12	-0.03	-0.03	1.00	0.90	9.84	1.17	0.12	Vehicle	-2.71	-0.23	-0.03	Vehicle	18.00	0.50	2	18.00	5	73.85	92.32	1	344.52	344.5	**131.26**	**218.77**	**675.19**	**1125.31**
	L_{20} - L_{21}	7.95	-2.45	0.48	0.48	-0.17	-0.17	0.16	0.16	0.00	0.00	1.00	0.90	7.95	0.43	0.16	Pedestrian	-2.45	-0.15	-----	Vehicle	18.00	0.81	2	11.08	5	73.85	92.32	1	559.845	559.8	**578.54**	**723.18**	**1719.67**	**2866.11**
	L_{21} - L_{22}	8.88	-2.40	0.91	0.91	-0.34	-0.34	0.16	0.16	-0.05	-0.05	1.00	0.90	8.88	0.82	0.16	Vehicle	-2.40	-0.30	-0.05	Vehicle	18.00	0.81	2	11.08	5	73.85	92.32	1	559.845	559.8	**308.65**	**514.42**	**847.17**	**1411.96**
	L_{22} - L_{23}	2.01	-9.01	0.41	0.41	-1.09	-1.09	0.06	0.06	-0.18	-0.18	1.00	0.90	2.01	0.37	0.06	Vehicle	-9.01	-0.98	-0.18	Vehicle	18.00	0.81	2	11.08	5	73.85	92.32	1	559.845	559.8	**691.91**	**1153.19**	**257.41**	**429.02**
	L_{23} - L_{24}	1.86	-8.53	0.22	0.22	-0.54	-0.54	0.00	0.00	-0.20	-0.20	1.00	0.90	1.86	0.20	-----	Vehicle	-8.53	-0.49	-0.20	Pedestrian	18.00	0.81	2	11.08	5	73.85	92.32	1	559.845	559.8	**1281.87**	**2136.46**	**493.85**	**617.31**
	L_{24} - L_{25}	2.80	-9.72	0.29	0.29	-1.16	-1.16	0.03	0.03	-0.11	-0.11	1.00	0.90	2.80	0.26	0.03	Vehicle	-9.72	-1.05	-0.11	Vehicle	18.00	0.50	2	18.00	5	73.85	92.32	1	344.52	344.5	**609.09**	**1015.15**	**146.47**	**244.11**
	L_{25} - L_{26}	-0.70	-10.70	0.22	0.22	-1.34	-1.34	0.00	0.00	-0.30	-0.30	1.00	0.90	-0.70	0.20	-----	Vehicle	-10.70	-1.20	-0.30	Vehicle	18.00	0.50	2	18.00	5	73.85	92.32	1	344.52	344.5	**790.82**	**1318.03**	**127.00**	**211.67**
	L_{26} - L_{27}	1.32	-10.35	0.62	0.62	-1.17	-1.17	0.05	0.05	-0.19	-0.19	1.00	0.90	1.32	0.56	0.05	Vehicle	-10.35	-1.05	-0.19	Vehicle	18.00	0.70	2	12.86	5	73.85	92.32	1	482.328	482.3	**395.62**	**659.36**	**206.04**	**343.40**
	L_{27} - L_{28}	-2.21	-16.20	0.07	0.07	-1.79	-1.79	0.00	0.00	-0.41	-0.41	1.00	0.90	-2.21	0.07	-----	Vehicle	-16.20	-1.61	-0.41	Vehicle	18.00	1.12	2	8.06	5	73.85	92.32	1	769.428	769.4	**5425.37**	**9042.28**	**214.04**	**356.74**
	L_{28} - L_{29}	11.79	-0.40	1.55	1.55	-0.68	-0.68	0.27	0.27	-0.04	-0.04	1.00	0.90	11.79	1.39	0.27	Vehicle	-0.40	-0.62	-0.04	Vehicle	18.00	1.41	2	6.37	5	73.85	92.32	1	973.269	973.3	**317.96**	**529.94**	**729.30**	**1215.50**
	L_{29} - L_{30}	-25.96	-39.46	1.42	1.42	-5.98	-5.98	0.00	0.00	-1.47	-1.47	1.00	0.90	-25.96	1.27	-----	Vehicle	-39.46	-5.38	-1.47	Vehicle	18.00	1.73	2	5.22	5	73.85	92.32	1	1188.594	1188.6	**443.00**	**738.33**	**97.60**	**162.66**
	L_{30} - L_{31}	38.82	24.63	6.06	6.06	-1.20	-1.20	1.43	1.43	0.00	0.00	1.00	0.90	38.82	5.46	1.43	Vehicle	24.63	-1.08	-----	Vehicle	18.00	1.73	2	5.22	5	73.85	92.32	1	1188.594	1188.6	**96.28**	**160.47**	**519.90**	**866.50**
	L_{31} - L_{32}	6.18	-7.73	0.96	0.96	-1.11	-1.11	0.15	0.15	-0.25	-0.25	1.00	0.90	6.18	0.86	0.15	Vehicle	-7.73	-1.00	-0.25	Vehicle	18.00	1.41	2	6.37	5	73.85	92.32	1	973.269	973.3	**517.23**	**862.06**	**446.62**	**744.36**
	L_{32} - L_{33}	16.95	1.13	1.19	1.19	-0.15	-0.15	0.34	0.34	0.00	0.00	1.00	0.90	16.95	1.07	0.34	Vehicle	1.13	-0.13	-----	Vehicle	18.00	0.96	2	9.33	5	73.85	92.32	1	664.6365	664.6	**276.69**	**461.16**	**2339.65**	**3899.42**
	L_{33} - L_{34}	12.91	0.40	1.37	1.37	-0.34	-0.34	0.24	0.24	-0.04	-0.04	1.00	0.90	12.91	1.23	0.24	Vehicle	0.40	-0.30	-0.04	Vehicle	18.00	0.60	2	15.00	5	73.85	92.32	1	413.424	413.4	**148.58**	**247.63**	**633.67**	**1056.11**
	L_{34} - L_{35}	12.86	2.50	1.18	1.18	-0.11	-0.11	0.31	0.31	0.00	0.00	1.00	0.90	12.86	1.06	0.31	Vehicle	2.50	-0.10	-----	Vehicle	18.00	0.70	2	12.86	5	73.85	92.32	1	482.328	482.3	**201.84**	**336.40**	**2203.65**	**3672.75**
	L_{35} - L_{36}	14.48	0.27	1.14	1.14	-0.15	-0.15	0.19	0.19	0.00	0.00	1.00	0.90	14.48	1.02	0.19	Vehicle	0.27	-0.13	-----	Vehicle	18.00	0.96	2	9.37	5	73.85	92.32	1	661.7655	661.8	**289.73**	**482.88**	**2341.71**	**3902.85**
	L_{36} - L_{37}	11.87	-3.19	1.05	1.05	-0.30	-0.30	0.19	0.19	0.00	0.00	1.00	0.90	11.87	0.95	0.19	Vehicle	-3.19	-0.27	-----	Vehicle	18.00	1.23	1	14.69	5	73.85	92.32	1	422.037	422.0	**198.59**	**330.98**	**721.55**	**1202.59**
	L_{37} - L_{38}	10.52	-3.30	0.70	0.70	-0.19	-0.19	0.10	0.10	0.00	0.00	1.00	0.90	10.52	0.63	0.10	Vehicle	-3.30	-0.17	-----	Vehicle	18.00	1.75	2	5.16	5	73.85	92.32	1	1202.949	1202.9	**875.01**	**1458.35**	**3322.68**	**5537.80**
	L_{38} - L_{39}	1.68	-11.78	0.38	0.38	-1.09	-1.09	0.05	0.05	-0.12	-0.12	1.00	0.90	1.68	0.35	0.05	Vehicle	-11.78	-0.98	-0.12	Vehicle	18.00	1.72	2	5.24	5	73.85	92.32	1	1184.2875	1184.3	**1578.67**	**2631.12**	**550.48**	**917.46**
	L_{39} - L_{40}	7.67	-10.20	0.31	0.31	-0.40	-0.40	0.05	0.05	-0.12	-0.12	1.00	0.90	7.67	0.28	0.05	Vehicle	-10.20	-0.36	-0.12	Vehicle	18.00	1.56	2	5.76	5	73.85	92.32	1	1076.625	1076.6	**1742.04**	**2903.40**	**1349.79**	**2249.65**
	L_{40} - L_{41}	0.89	-13.24	0.29	0.29	-1.15	-1.15	0.03	0.03	-0.16	-0.16	1.00	0.90	0.89	0.26	0.03	Vehicle	-13.24	-1.04	-0.16	Vehicle	18.00	1.19	2	7.57	5	73.85	92.32	1	819.6705	819.7	**1452.43**	**2420.71**	**357.22**	**595.37**
	L_{41} - L_{42}	1.02	-9.90	0.34	0.34	-1.07	-1.07	0.05	0.05	-0.24	-0.24	1.00	0.90	1.02	0.30	0.05	Vehicle	-9.90	-0.96	-0.24	Vehicle	18.00	0.83	2	10.91	5	73.85	92.32	1	568.458	568.5	**865.58**	**1442.63**	**266.28**	**443.79**
	L_{42} - L_{43}	0.59	-13.12	0.23	0.23	-1.06	-1.06	0.03	0.03	-0.22	-0.22	1.00	0.90	0.59	0.21	0.03	Vehicle	-13.12	-0.95	-0.22	Vehicle	18.00	0.45	1	40.00	5	73.85	92.32	1	155.034	155.0	**339.55**	**565.91**	**66.94**	**111.57**
	L_{43} - L_{44}	-0.09	-9.99	0.23	0.23	-1.15	-1.15	0.03	0.03	-0.29	-0.29	1.00	0.90	-0.09	0.20	0.03	Vehicle	-9.99	-1.03	-0.29	Vehicle	18.00	0.45	2	20.00	5	73.85	92.32	1	310.068	310.1	**700.75**	**1167.91**	**132.71**	**221.18**
Structure 3	L_0 - L_1	7.56	-2.30	0.92	0.92	-0.09	-0.09	0.22	0.22	-0.01	-0.01	1.00	0.90	7.56	0.83	0.22	Vehicle	-2.30	-0.08	-0.01	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**122.15**	**203.59**	**1351.77**	**2252.94**
	L_1 - L_2	11.66	-0.81	1.07	1.07	-0.13	-0.13	0.27	0.27	-0.02	-0.02	1.00	0.90	11.66	0.96	0.27	Vehicle	-0.81	-0.12	-0.02	Vehicle	15.00	0.40	2	18.75	5	73.85	92.32	1	229.68	229.7	**103.30**	**172.16**	**881.56**	**1469.26**
	L_2 - L_3	9.44	-2.32	0.77	0.77	-0.13	-0.13	0.25	0.25	-0.03	-0.03	1.00	0.90	9.44	0.70	0.25	Pedestrian	-2.32	-0.11	-0.03	Vehicle	15.00	0.90	2	8.33	5	73.85	92.32	1	516.78	516.8	**327.60**	**409.50**	**2074.58**	**3457.64**
	L_3 - L_4	11.46	0.38	1.53	1.53	-0.19	-0.19	0.24	0.24	-0.02	-0.02	1.00	0.90	11.46	1.38	0.24	Vehicle	0.38	-0.17	-0.02	Vehicle	15.00	1.34	2	5.61	5	73.85	92.32	1	767.9925	768.0	**252.09**	**420.15**	**2063.31**	**3438.85**
	L_4 - L_5	3.42	-6.02	0.03	0.03	-0.52	-0.52	0.04	0.04	-0.03	-0.03	1.00	0.90	3.42	0.02	0.04

Columbia Parkway (HAM-471-0025)
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

			Member Forces from STAAD												Maximum Positive Shear				Minimum Negative Shear												Shear Force Rating			
			D		LL_{max}		LL_{min}		Pedestrian $Load_{max}$		Pedestrian $Load_{min}$		Impact (1+I)	Lane Reduction	Dead (kips)	LL & Impact & Lane Reduct. (kips)	Pedestrian Load & Impact	Load Factor Groups &	Dead (kips)	LL & Impact & Lane Reduct.	Pedestrian Load & Impact	Load Factor Groups &	Depth of Web (inches)	Thickness of Web (inches	Number of Webs	D/t_W	k	6000 sqrt(k) sqrt(Fy)	7500 sqrt(k) sqrt(Fy)	C	V_P (kips)	V_U (kips)	Positive Shear Member Inventory RF	Positive Shear Member Operating RF	Negative Shear Member Inventory RF	Negative Shear Member Operating RF
Location	Member	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)	Start (kips)	End (kips)																						
Structure 1	U_0 - L_0	-1.56	-1.56	0.31	0.31	-0.87	-0.87	0.04	0.04	-0.12	-0.12	1.00	0.90	-1.56	0.28	0.04	Vehicle	-1.56	-0.78	-0.12	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	417.51	695.84	144.46	240.76
	U_1 - L_1	-1.45	-1.45	0.63	0.63	-1.60	-1.60	0.12	0.12	-0.33	-0.33	1.00	0.90	-1.45	0.57	0.12	Vehicle	-1.45	-1.44	-0.33	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	203.32	338.87	78.59	130.99
	U_2 - L_2	0.31	0.31	0.57	0.57	-0.50	-0.50	0.11	0.11	-0.16	-0.16	1.00	0.90	0.31	0.51	0.11	Vehicle	0.31	-0.45	-0.16	Pedestrian	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	223.52	372.53	248.10	310.12
	U_3 - L_3	1.69	1.69	0.79	0.79	-0.09	-0.09	0.09	0.09	-0.04	-0.04	1.00	0.90	1.69	0.71	0.09	Vehicle	1.69	-0.08	-0.04	Pedestrian	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	158.18	263.63	1240.19	1550.24
	U_4 - L_4	2.57	2.57	0.85	0.85	0.00	0.00	0.16	0.16	0.00	0.00	1.00	0.90	2.57	0.76	0.16	Vehicle	2.57	-----	-----	-----	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	147.76	246.27	-----	-----
	U_5 - L_5	2.90	2.90	0.82	0.82	-0.05	-0.05	0.23	0.23	0.00	0.00	1.00	0.90	2.90	0.74	0.23	Vehicle	2.90	-0.05	-----	Vehicle	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	184.98	308.31	2945.45	4909.08
	U_6 - L_6	2.64	2.64	0.66	0.66	-0.16	-0.16	0.22	0.22	0.00	0.00	1.00	0.90	2.64	0.60	0.22	Pedestrian	2.64	-0.14	-----	Vehicle	16.00	0.44	2	18.29	5	73.85	92.32	1	267.96	268.0	199.11	248.88	880.84	1468.07
	U_7 - L_7	2.84	2.84	0.76	0.76	-0.19	-0.19	0.23	0.23	0.00	0.00	1.00	0.90	2.84	0.68	0.23	Pedestrian	2.84	-0.17	-----	Vehicle	16.25	0.44	2	18.57	5	73.85	92.32	1	272.14688	272.1	181.10	226.38	729.15	1215.25
	U_8 - L_8	-0.84	-0.84	0.50	0.50	-0.77	-0.77	0.19	0.19	-0.19	-0.19	1.00	0.90	-0.84	0.45	0.19	Pedestrian	-0.84	-0.69	-0.19	Vehicle	15.25	0.82	2	9.30	5	73.85	92.32	1	478.6914	478.7	458.68	573.35	318.08	530.13
	U_9 - L_9	-6.05	-6.05	0.04	0.04	-1.39	-1.39	0.00	0.00	-0.38	-0.38	1.00	0.90	-6.05	0.04	-----	Vehicle	-6.05	-1.25	-0.38	Vehicle	16.25	0.50	2	16.25	5	73.85	92.32	1	311.025	311.0	3988.67	6647.78	112.09	186.81
	U_{10} - L_{10}	-5.08	-5.08	0.07	0.07	-1.37	-1.37	0.00	0.00	-0.32	-0.32	1.00	0.90	-5.08	0.06	0.00	Vehicle	-5.08	-1.23	-0.32	Vehicle	16.16	0.83	2	9.75	5	73.85	92.32	1	512.74682	512.7	4097.42	6829.04	189.88	316.46
	U_{11} - L_{11}	-6.10	-6.10	0.02	0.02	-1.71	-1.71	0.00	0.00	-0.38	-0.38	1.00	0.90	-6.10	0.01	-----	Vehicle	-6.10	-1.54	-0.38	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	12866.63	21444.39	108.24	180.39
	U_{12} - L_{12}	-4.35	-4.35	0.01	0.01	-0.90	-0.90	0.00	0.00	-0.26	-0.26	1.00	0.90	-4.35	0.01	-----	Vehicle	-4.35	-0.81	-0.26	Vehicle	16.25	0.50	2	16.25	5	73.85	92.32	1	311.025	311.0	13533.50	22555.83	173.23	288.71
	U_{13} - L_{13}	-2.49	-2.49	0.01	0.01	-0.48	-0.48	0.00	0.00	-0.15	-0.15	1.00	0.90	-2.49	0.01	-----	Vehicle	-2.49	-0.43	-0.15	Pedestrian	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	11733.35	19555.59	282.41	353.01
	U_{14} - L_{14}	-1.05	-1.05	0.10	0.10	-0.15	-0.15	0.00	0.00	-0.05	-0.05	1.00	0.90	-1.05	0.09	-----	Vehicle	-1.05	-0.13	-0.05	Pedestrian	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	1249.17	2081.94	816.98	1021.22
	U_{15} - L_{15}	0.56	0.56	0.42	0.42	-0.14	-0.14	0.09	0.09	-0.04	-0.04	1.00	0.90	0.56	0.38	0.09	Vehicle	0.56	-0.13	-0.04	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	298.68	497.81	882.58	1470.96
	U_{16} - L_{16}	1.64	1.64	0.52	0.52	-0.13	-0.13	0.13	0.13	-0.03	-0.03	1.00	0.90	1.64	0.47	0.13	Vehicle	1.64	-0.12	-0.03	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	241.58	402.64	968.26	1613.77
	U_{17} - L_{17}	2.21	2.21	0.56	0.56	-0.11	-0.11	0.15	0.15	-0.02	-0.02	1.00	0.90	2.21	0.50	0.15	Vehicle	2.21	-0.10	-0.02	Vehicle	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	273.18	455.29	1468.35	2447.25
	U_{18} - L_{18}	3.83	3.83	0.80	0.80	-0.12	-0.12	0.24	0.24	-0.02	-0.02	1.00	0.90	3.83	0.72	0.24	Pedestrian	3.83	-0.11	-0.02	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	196.24	245.30	1320.62	2201.03
	U_{19} - L_{19}	3.13	3.13	0.59	0.59	-0.08	-0.08	0.21	0.21	-0.02	-0.02	1.00	0.90	3.13	0.53	0.21	Pedestrian	3.13	-0.07	-0.02	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	304.56	380.70	2358.24	3930.40
	U_{20} - L_{20}	2.80	2.80	0.47	0.47	-0.04	-0.04	0.17	0.17	-0.01	-0.01	1.00	0.90	2.80	0.42	0.17	Pedestrian	2.80	-0.04	-0.01	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	377.16	471.45	4437.12	7395.20
	U_0 - L_0	-2.52	-2.52	0.12	0.12	-0.52	-0.52	0.01	0.01	-0.09	-0.09	1.00	0.90	-2.52	0.11	0.01	Vehicle	-2.52	-0.47	-0.09	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	1761.02	2935.03	393.15	655.26
	U_1 - L_1	-4.00	-4.00	0.27	0.27	-1.05	-1.05	0.03	0.03	-0.21	-0.21	1.00	0.90	-4.00	0.24	0.03	Vehicle	-4.00	-0.95	-0.21	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	776.16	1293.60	193.40	322.33
	U_2 - L_2	-3.87	-3.87	0.35	0.35	-1.11	-1.11	0.04	0.04	-0.21	-0.21	1.00	0.90	-3.87	0.31	0.04	Vehicle	-3.87	-1.00	-0.21	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	502.83	838.05	151.55	252.58
	U_3 - L_3	-2.33	-2.33	0.26	0.26	-0.74	-0.74	0.03	0.03	-0.13	-0.13	1.00	0.90	-2.33	0.24	0.03	Vehicle	-2.33	-0.66	-0.13	Vehicle	16.32	0.53	2	15.43	5	73.85	92.32	1	330.48196	330.5	650.31	1083.84	227.85	379.75
	U_4 - L_4	-1.45	-1.45	0.30	0.30	-0.64	-0.64	0.04	0.04	-0.11	-0.11	1.00	0.90	-1.45	0.27	0.04	Vehicle	-1.45	-0.58	-0.11	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	425.60	709.34	195.57	325.95
	U_5 - L_5	-0.22	-0.22	0.30	0.30	-0.43	-0.43	0.04	0.04	-0.06	-0.06	1.00	0.90	-0.22	0.27	0.04	Vehicle	-0.22	-0.38	-0.06	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	428.58	714.31	297.82	496.36
	U_6 - L_6	0.74	0.74	0.24	0.24	-0.25	-0.25	0.04	0.04	-0.01	-0.01	1.00	0.90	0.74	0.22	0.04	Vehicle	0.74	-0.23	-0.01	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	517.32	862.19	506.81	844.68
	U_7 - L_7	1.65	1.65	0.29	0.29	-0.04	-0.04	0.07	0.07	0.00	0.00	1.00	0.90	1.65	0.26	0.07	Vehicle	1.65	-0.03	-----	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	440.75	734.59	3550.53	5917.55
	U_8 - L_8	3.91	3.91	0.95	0.95	0.00	0.00	0.17	0.17	0.00	0.00	1.00	0.90	3.91	0.86	0.17	Vehicle	3.91	0.00	-----	Vehicle	15.75	0.44	2	18.00	5	73.85	92.32	1	263.77313	263.8	139.35	232.25	137873.60	229789.34
	U_9 - L_9	6.62	6.62	1.37	1.37	-0.03	-0.03	0.26	0.26	0.00	0.00	1.00	0.90	6.62	1.24	0.26	Vehicle	6.62	-0.03	-----	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	146.91	244.85	7259.72	12099.54
	U_{10} - L_{10}	5.55	5.55	1.33	1.33	-0.10	-0.10	0.23	0.23	0.00	0.00	1.00	0.90	5.55	1.19	0.23	Vehicle	5.55	-0.09	-----	Vehicle	16.48	0.81	2	10.15	5	73.85	92.32	1	511.96897	512.0	195.06	325.11	2662.48	4437.46
	U_{11} - L_{11}	4.64	4.64	0.99	0.99	-0.15	-0.15	0.19	0.19	0.00	0.00	1.00	0.90	4.64	0.89	0.19	Vehicle	4.64	-0.14	-----	Vehicle	16.48	0.81	2	10.15	5	73.85	92.32	1	511.96897	512.0	262.87	438.12	1724.95	2874.92
	U_{12} - L_{12}	3.46	3.46	0.82	0.82	-0.23	-0.23	0.16	0.16	-0.01	-0.01	1.00	0.90	3.46	0.73	0.16	Vehicle	3.46	-0.20	-0.01	Vehicle	16.48	0.90	2	9.13	5	73.85	92.32	1	569.38897	569.4	355.45	592.41	1308.00	2180.00
	U_{13} - L_{13}	3.45	3.45	0.63	0.63	-0.25	-0.25	0.14	0.14	0.00	0.00	1.00	0.90	3.45	0.57	0.14	Vehicle	3.45	-0.22	-----	Vehicle	16.32	0.81	2	10.06	5	73.85	92.32	1	506.49034	506.5	406.05	676.76	1060.89	1768.14
	U_{14} - L_{14}	0.27	0.27	0.50	0.50	-0.54	-0.54	0.11	0.11	-0.10	-0.10	1.00	0.90	0.27	0.45	0.11	Vehicle	0.27	-0.48	-0.10	Vehicle	15.38	0.84	2	9.15	5	73.85	92.32	1	494.54698	494.5	507.88	846.47	473.50	789.16
	U_{15} - L_{15}	-2.96	-2.96	0.07	0.07	-0.78	-0.78	0.00	0.00	-0.13	-0.13	1.00	0.90	-2.96	0.07	-----	Vehicle	-2.96	-0.70	-0.13	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	2375.02	3958.36	216.65	361.09
	U_{16} - L_{16}	-2.84	-2.84	0.23	0.23	-0.91	-0.91	0.03	0.03	-0.16	-0.16	1.00	0.90	-2.84	0.20	0.03	Vehicle	-2.84	-0.81	-0.16	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	916.37	1527.28	225.66	376.10
	U_{17} - L_{17}	-3.71	-3.71	0.19	0.19	-1.12	-1.12	0.02	0.02	-0.19	-0.19	1.00	0.90	-3.71	0.17	0.02	Vehicle	-3.71	-1.01	-0.19	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	986.64	1644.40	166.93	278.21
	U_{18} - L_{18}	-3.92	-3.92	0.20	0.20	-1.24	-1.24	0.02	0.02	-0.22	-0.22	1.00	0.90	-3.92	0.18	0.02	Vehicle	-3.92	-1.12	-0.22	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	857.22	1428.70	135.79	226.31
	U_{19} - L_{19}	-2.44	-2.44	0.09	0.09	-0.84	-0.84	0.01	0.01	-0.14	-0.14	1.00	0.90	-2.44	0.08	0.01	Vehicle	-2.44	-0.75	-0.14	Vehicle	15.75	0.50	2	15.75	5	73.85	92.32	1	301.455	301.5	1755.25	2925.42	182.76	304.59
	U_{20} - L_{20}	-1.76	-1.76	0.08	0.08	-0.46	-0.46	0.00	0.00	-0.12	-0.12	1.00	0.90	-1.76	0.07	0.00	Vehicle	-1.76	-0.42	-0.12	Vehicle	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	1732.26	2887.10	298.64	497.74
	U_{21} - L_{21}	-1.05	-1.05	0.06	0.06	-0.34	-0.34	0.00	0.00	-0.09	-0.09	1.00	0.90	-1.05	0.05	-----	Vehicle	-1.05	-0.31	-0.09	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	2196.88	3661.47	369.55	615.91
	U_{22} - L_{22}	0.13	0.13	0.24	0.24	-0.12	-0.12	0.05	0.05	-0.03	-0.03	1.00	0.90	0.13	0.22	0.05	Vehicle	0.13	-0.11	-0.03	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	518.97	864.94	1047.99	1746.64
	U_{23} - L_{23}	1.36	1.36	0.54	0.54	-0.11	-0.11	0.11	0.11	-0.02	-0.02	1.00	0.90	1.36	0.49	0.11	Vehicle	1.36	-0.10	-0.02	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	231.70	386.17	1160.19	1933.65
	U_{24} - L_{24}	2.07	2.07	0.71	0.71	-0.14	-0.14	0.14	0.14	-0.02	-0.02	1.00	0.90	2.07	0.64	0.14	Vehicle	2.07	-0.12	-0.02	Vehicle	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	194.58	324.30	1018.28	1697.13
	U_{25} - L_{25}	2.70	2.70	1.01	1.01	-0.15	-0.15	0.16	0.16	-0.02	-0.02	1.00	0.90	2.70	0.91	0.16	Vehicle	2.70	-0.13	-0.02	Vehicle	15.75	0.50	2	15.75	5	73.85	92.32	1	301.455	301.5	151.58	252.64	1049.60	1749.33
	U_{26} - L_{26}	4.21	4.21	1.31	1.31	-0.27	-0.27	0.23	0.23	-0.03	-0.03	1.00	0.90	4.21	1.17	0.23	Vehicle	4.21	-0.24	-0.03	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	129.19	215.32	645.20	1075.33
	U_{27} - L_{27}	3.88	3.88	1.05	1.05	-0.23	-0.23	0.20	0.20	-0.01	-0.01	1.00	0.90	3.88	0.95	0.20	Vehicle	3.88	-0.21	-0.01	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	177.47	295.79	836.33	1393.88
	U_{28} - L_{28}	2.75	2.75	0.69	0.69	-0.32	-0.32	0.14	0.14	-0.02	-0.02	1.00	0.90	2.75	0.62	0.14	Vehicle	2.75	-0.29	-0.02	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	297.36	495.61	645.81	1076.35
	U_{29} - L_{29}	2.82	2.82	0.63	0.63	-0.31	-0.31	0.13	0.13	0.00	0.00	1.00	0.90	2.82	0.57	0.13	Vehicle	2.82	-0.28	-----	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	268.23	447.05	558.96	931.60
	U_{30} - L_{30}	-0.53	-0.53	0.38	0.38	-0.54	-0.54	0.09	0.09	-0.10	-0.10	1.00	0.90	-0.53	0.34	0.09	Vehicle	-0.53	-0.49	-0.10	Vehicle	15.38	0.84	2	9.15	5	73.85	92.32	1	494.54698	494.5	664.84	1108.07	465.55	775.91
	U_{31} - L_{31}	-3.70	-3.70	0.08	0.08	-0.69	-0.69	0.00	0.00	-0.15	-0.15	1.00	0.90	-3.70	0.07	-----	Vehicle	-3.70	-0.62	-0.15	Vehicle	16.32	0.81	2	10.06	5	73.85	92.32	1	506.49034	506.5	3319.09	5531.81	375.58	625.96
	U_{32} - L_{32}	-3.62	-3.62	0.15	0.15	-0.85	-0.85	0.02	0.02	-0.16	-0.16	1.00	0.90	-3.62	0.13	0.02	Vehicle	-3.62	-0.77	-0.16	Vehicle	16.48	0.90	2	9.13	5	73.85	92.32	1	569.38897	569.4	1989.25	3315.41	339.48	565.81
	U_{33} - L_{33}	-4.59	-4.59	0.06	0.06	-1.01	-1.01	0.00	0.00	-0.18	-0.18	1.00	0.90	-4.59	0.05	-----	Vehicle	-4.59	-0.90	-0.18	Vehicle	16.48	0.81	2	10.15	5	73.85	92.32	1	511.96897	512.0	4829.20	8048.67	258.20	430.33
	U_{34} - L_{34}	-5.33	-5.33	0.02	0.02	-1.15	-1.15	0.00	0.00	-0.22	-0.22	1.00	0.90	-5.33	0.01	-----	Vehicle	-5.33	-1.03	-0.22	Vehicle	16.48	0.81	2	10.15	5	73.85	92.32	1	511.96897	512.0	17739.97	29566.61	225.80	376.34
	U_{35} - L_{35}	-6.23	-6.23	0.00	0.00	-1.23	-1.23	0.00	0.00	-0.25	-0.25	1.00	0.90	-6.23	-----	-----	-----	-6.23	-1.11	-0.25	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	-----	-----	164.33	273.89
	U_{36} - L_{36}	-3.53	-3.53	0.00	0.00	-0.82	-0.82	0.00	0.00	-0.15	-0.15	1.00	0.90	-3.53	-----	-----	-----	-3.53	-0.74	-0.15	Vehicle	15.75	0.44	2	18.00	5	73.85	92.32	1	263.77313	263.8	-----	-----	161.89	269.82
	U_{37} - L_{37}	-1.47	-1.47	0.00	0.00	-0.27	-0.27	0.00	0.00	-0.06	-0.06	1.00	0.90	-1.47	-----	-----	-----	-1.47	-0.24	-0.06	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	-----	-----	474.47	790.79
	U_{38} - L_{38}	-0.52	-0.52	0.43	0.43	-0.27	-0.27	0.03	0.03	-0.04	-0.04	1.00	0.90	-0.52	0.38	0.03	Vehicle	-0.52	-0.24	-0.04	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	298.97	498.29	466.31	777.18
	U_{39} - L_{39}	0.56	0.56	0.58	0.58	-0.29	-0.29	0.07	0.07	-0.04	-0.04	1.00	0.90	0.56	0.52	0.07	Vehicle	0.56	-0.26	-0.04	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	218.96	364.94	432.29	720.48
	U_{40} - L_{40}	1.79	1.79	0.75	0.75	-0.29	-0.29	0.11	0.11	-0.04	-0.04	1.00	0.90	1.79	0.67	0.11	Vehicle	1.79	-0.26	-0.04	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	168.04	280.07	441.06	735.11
	U_{41} - L_{41}	2.59	2.59	0.76	0.76	-0.24	-0.24	0.13	0.13	-0.03	-0.03	1.00	0.90	2.59	0.68	0.13	Vehicle	2.59	-0.22	-0.03	Vehicle	16.32	0.53	2	15.43	5	73.85	92.32	1	330.48196	330.5	221.02	368.36	710.38	1183.97
	U_{42} - L_{42}	4.23	4.23	1.11	1.11	-0.31	-0.31	0.21	0.21	-0.04	-0.04	1.00	0.90	4.23	1.00	0.21	Vehicle	4.23	-0.28	-0.04	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	151.60	252.67	563.82	939.70
	U_{43} - L_{43}	3.86	3.86	0.83	0.83	-0.21	-0.21	0.19	0.19	-0.03	-0.03	1.00	0.90	3.86	0.75	0.19	Vehicle	3.86	-0.19	-0.03	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	244.35	407.25	998.54	1664.23
	U_{44} - L_{44}	3.42	3.42	0.62	0.62	-0.12	-0.12	0.14	0.14	-0.01	-0.01	1.00	0.90	3.42	0.56	0.14	Vehicle	3.42	-0.10	-0.01	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	329.84	549.74	1812.14	3020.24
Structure 2	U_0 - L_0	-1.97	-1.97	0.05	0.05	-0.47	-0.47	0.01	0.01	-0.09	-0.09	1.00	0.90	-1.97	0.04	0.01	Vehicle	-1.97	-0.43	-0.09	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	3963.46	6605.77	396.66	661.10
	U_1 - L_1	-3.42	-3.42	0.12	0.12	-0.93	-0.93	0.02	0.02	-0.24	-0.24	1.00	0.90	-3.42	0.10	0.02	Vehicle	-3.42	-0.84	-0.24	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	1662.69	2771.15	200.06	333.43
	U_2 - L_2	-3.56	-3.56	0.15	0.15	-0.99	-0.99	0.03	0.03	-0.23	-0.23	1.00	0.90	-3.56

Columbia Parkway (HAM-471-0025)
AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition
Load Rating Analysis - Truss Spans
Loading: HS20 Lane
Condition: As-Built

Fy = 33.0 ksi
Fu = 60.0 ksi
E = 29000.0 ksi

(+) Positive Stresses / Forces Indicate Tension
(-) Negative Stresses / Forces Indicate Compression
& Guide Specifications for Strength Design of Truss Bridges (LDF) 1985 rev 1986

Calculated: BKC Date: 10/28/2009
Checked: NRF Date: 11/2/2009

* MCEB Table 6.6.2.1-1, A-36 Steel
** Area deducted for rivet holes (see separate calculations)
*** K = 0.75 per MCEB 6.6.2.1
**** Per AASHTO Std. Specs. For Highway Bridges, Article 3.22.1
(Case I considered in Max. Tension/Compression Load)

South Truss - Diagonals

Location	Member	Member Forces from STAAD: D Start (kips)	D End (kips)	LL_{max} Start (kips)	LL_{max} End (kips)	LL_{min} Start (kips)	LL_{min} End (kips)	Pedestrian $Load_{max}$ Start (kips)	Pedestrian $Load_{max}$ End (kips)	Pedestrian $Load_{min}$ Start (kips)	Pedestrian $Load_{min}$ End (kips)	Impact (1+I)	Lane Reduction	Maximum Positive Shear: Dead (kips)	LL & Impact & Lane Reduct. (kips)	Pedestrian Load & Impact	Load Factor Groups &	Minimum Negative Shear: Dead (kips)	LL & Impact & Lane Reduct.	Pedestrian Load & Impact	Load Factor Groups &	Depth of Web (inches)	Thickness of Web (inches)	Number of Webs	D/t_W	k	6000 sqrt(k) sqrt(Fy)	7500 sqrt(k) sqrt(Fy)	C	V_P (kips)	V_U (kips)	Shear Force Rating: Positive Shear Member Inventory RF	Positive Shear Member Operating RF	Negative Shear Member Inventory RF	Negative Shear Member Operating RF
Structure 1	U_0 - L_1	0.34	-0.17	0.07	0.07	-0.19	-0.19	0.03	0.03	0.00	0.00	1.00	0.90	0.34	0.06	0.03	Pedestrian	-0.17	-0.17	0.00	Vehicle	10.00	0.31	2	16.00	5	73.85	92.32	1	119.625	119.6	**840.17**	**1050.21**	**329.21**	**548.69**
	U_1 - L_2	0.05	-0.25	0.09	0.09	-0.14	-0.14	0.02	0.02	-0.05	-0.05	1.00	0.90	0.05	0.08	0.02	Vehicle	-0.25	-0.13	-0.05	Pedestrian	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1407.63**	**2346.04**	**859.42**	**1074.28**
	U_2 - L_3	0.29	-0.01	0.09	0.09	-0.05	-0.05	0.02	0.02	-0.01	-0.01	1.00	0.90	0.29	0.08	0.02	Vehicle	-0.01	-0.04	-0.01	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1437.75**	**2396.24**	**2695.98**	**4493.30**
	U_3 - L_4	0.44	0.13	0.12	0.12	0.00	0.00	0.01	0.01	0.00	0.00	1.00	0.90	0.44	0.11	0.01	Vehicle	0.13	-----	-----	-----	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1053.51**	**1755.85**	-----	-----
	U_4 - L_4	-0.36	-0.70	0.00	0.00	-0.18	-0.18	0.00	0.00	-0.04	-0.04	1.00	0.90	-0.36	-----	-----	-----	-0.70	-0.16	-0.04	Vehicle	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	-----	-----	**878.35**	**1463.92**
	U_5 - L_5	-1.05	-1.50	0.03	0.03	-0.34	-0.34	0.00	0.00	-0.10	-0.10	1.00	0.90	-1.05	0.03	-----	Vehicle	-1.50	-0.31	-0.10	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**5352.85**	**8921.42**	**465.94**	**776.56**
	U_6 - L_6	-1.37	-1.84	0.10	0.10	-0.44	-0.44	0.00	0.00	-0.13	-0.13	1.00	0.90	-1.37	0.09	-----	Vehicle	-1.84	-0.40	-0.13	Pedestrian	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1674.99**	**2791.65**	**359.85**	**449.81**
	U_7 - L_7	-0.71	-1.20	0.08	0.08	-0.27	-0.27	0.00	0.00	-0.08	-0.08	1.00	0.90	-0.71	0.07	-----	Vehicle	-1.20	-0.24	-0.08	Pedestrian	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**2138.09**	**3563.49**	**597.70**	**747.12**
	U_8 - L_9	-1.25	-2.17	0.05	0.05	-0.43	-0.43	0.01	0.01	-0.11	-0.11	1.00	0.90	-1.25	0.04	0.01	Vehicle	-2.17	-0.39	-0.11	Vehicle	16.25	0.63	2	13.00	5	73.85	92.32	1	388.78125	388.8	**4085.90**	**6809.83**	**459.23**	**765.38**
	U_9 - L_{10}	-2.11	-2.95	0.02	0.02	-0.64	-0.64	0.00	0.00	-0.16	-0.16	1.00	0.90	-2.11	0.02	-----	Vehicle	-2.95	-0.57	-0.16	Vehicle	16.25	0.63	2	13.00	5	73.85	92.32	1	388.78125	388.8	**9560.87**	**15934.79**	**309.91**	**516.51**
	U_{10} - L_{11}	-1.43	-2.28	0.02	0.02	-0.47	-0.47	0.00	0.00	-0.10	-0.10	1.00	0.90	-1.43	0.02	-----	Vehicle	-2.28	-0.43	-0.10	Vehicle	16.25	0.50	2	16.25	5	73.85	92.32	1	311.025	311.0	**9438.55**	**15730.92**	**333.99**	**556.65**
	U_{11} - L_{12}	-1.21	-1.69	0.02	0.02	-0.40	-0.40	0.00	0.00	-0.09	-0.09	1.00	0.90	-1.21	0.01	-----	Vehicle	-1.69	-0.36	-0.09	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**12649.34**	**21082.24**	**466.02**	**776.70**
	U_{12} - L_{13}	-0.93	-1.64	0.01	0.01	-0.24	-0.24	0.00	0.00	-0.07	-0.07	1.00	0.90	-0.93	0.01	-----	Vehicle	-1.64	-0.22	-0.07	Vehicle	16.00	0.44	2	18.29	5	73.85	92.32	1	267.96	268.0	**11502.84**	**19171.40**	**563.30**	**938.84**
	U_{13} - L_{14}	-0.18	-0.52	0.01	0.01	-0.07	-0.07	0.00	0.00	-0.02	-0.02	1.00	0.90	-0.18	0.01	-----	Vehicle	-0.52	-0.06	-0.02	Pedestrian	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**9756.85**	**16261.41**	**1842.63**	**2303.29**
	U_{15} - L_{14}	0.33	0.00	0.03	0.03	-0.06	-0.06	0.01	0.01	-0.01	-0.01	1.00	0.90	0.33	0.03	0.01	Vehicle	0.00	-0.05	-0.01	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**3720.42**	**6200.70**	**2077.34**	**3462.23**
	U_{16} - L_{15}	-0.23	-0.58	0.05	0.05	-0.16	-0.16	0.01	0.01	-0.03	-0.03	1.00	0.90	-0.23	0.04	0.01	Vehicle	-0.58	-0.14	-0.03	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**2819.40**	**4699.00**	**804.64**	**1341.07**
	U_{17} - L_{16}	-0.54	-0.93	0.05	0.05	-0.22	-0.22	0.01	0.01	-0.06	-0.06	1.00	0.90	-0.54	0.04	0.01	Vehicle	-0.93	-0.20	-0.06	Vehicle	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	**3219.49**	**5365.81**	**685.51**	**1142.52**
	U_{18} - L_{17}	-1.69	-2.17	0.07	0.07	-0.43	-0.43	0.01	0.01	-0.11	-0.11	1.00	0.90	-1.69	0.06	0.01	Vehicle	-2.17	-0.39	-0.11	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**2403.17**	**4005.28**	**370.19**	**616.98**
	U_{19} - L_{18}	-1.52	-2.05	0.05	0.05	-0.36	-0.36	0.01	0.01	-0.11	-0.11	1.00	0.90	-1.52	0.05	0.01	Vehicle	-2.05	-0.32	-0.11	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**3448.24**	**5747.07**	**478.98**	**798.29**
	U_{20} - L_{19}	-1.60	-2.18	0.03	0.03	-0.38	-0.38	0.01	0.01	-0.12	-0.12	1.00	0.90	-1.60	0.03	0.01	Vehicle	-2.18	-0.34	-0.12	Pedestrian	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**5947.04**	**9911.73**	**442.38**	**552.98**
Structure 2	U_0 - L_1	-1.42	-1.97	0.09	0.09	-0.36	-0.36	0.01	0.01	-0.05	-0.05	1.00	0.90	-1.42	0.08	0.01	Vehicle	-1.97	-0.33	-0.05	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**2086.58**	**3477.63**	**518.28**	**863.80**
	U_1 - L_2	-2.23	-2.78	0.19	0.19	-0.68	-0.68	0.02	0.02	-0.14	-0.14	1.00	0.90	-2.23	0.17	0.02	Vehicle	-2.78	-0.61	-0.14	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**1002.22**	**1670.37**	**277.16**	**461.93**
	U_2 - L_3	-1.76	-2.23	0.20	0.20	-0.61	-0.61	0.03	0.03	-0.11	-0.11	1.00	0.90	-1.76	0.18	0.03	Vehicle	-2.23	-0.55	-0.11	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**801.28**	**1335.46**	**260.95**	**434.92**
	U_3 - L_4	-0.78	-1.19	0.14	0.14	-0.35	-0.35	0.02	0.02	-0.06	-0.06	1.00	0.90	-0.78	0.13	0.02	Vehicle	-1.19	-0.31	-0.06	Vehicle	16.32	0.53	2	15.43	5	73.85	92.32	1	330.48196	330.5	**1197.16**	**1995.27**	**486.13**	**810.21**
	U_4 - L_5	-0.13	-0.47	0.11	0.11	-0.21	-0.21	0.01	0.01	-0.03	-0.03	1.00	0.90	-0.13	0.10	0.01	Vehicle	-0.47	-0.19	-0.03	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1142.35**	**1903.91**	**604.79**	**1007.98**
	U_5 - L_6	0.36	0.01	0.10	0.10	-0.10	-0.10	0.01	0.01	-0.01	-0.01	1.00	0.90	0.36	0.09	0.01	Vehicle	0.01	-0.09	-0.01	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1216.14**	**2026.90**	**1218.52**	**2030.87**
	U_6 - L_7	0.65	0.25	0.08	0.08	-0.03	-0.03	0.02	0.02	0.00	0.00	1.00	0.90	0.65	0.08	0.02	Vehicle	0.25	-0.02	-----	Vehicle	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	**1651.34**	**2752.24**	**5159.69**	**8599.48**
	U_8 - L_7	-0.66	-1.45	0.00	0.00	-0.22	-0.22	0.00	0.00	-0.04	-0.04	1.00	0.90	-0.66	0.00	-----	Vehicle	-1.45	-0.20	-0.04	Vehicle	15.75	0.38	2	21.00	5	73.85	92.32	1	226.09125	226.1	**58192.12**	**96986.86**	**527.42**	**879.03**
	U_8 - L_9	-2.06	-2.57	0.00	0.00	-0.51	-0.51	0.00	0.00	-0.09	-0.09	1.00	0.90	-2.06	0.00	-----	Vehicle	-2.57	-0.46	-0.09	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**43192.54**	**71987.57**	**330.77**	**551.29**
	U_{10} - L_9	-2.06	-2.56	0.03	0.03	-0.53	-0.53	0.00	0.00	-0.09	-0.09	1.00	0.90	-2.06	0.03	-----	Vehicle	-2.56	-0.47	-0.09	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**6138.84**	**10231.41**	**356.62**	**594.36**
	U_{11} - L_{10}	-2.31	-2.86	0.07	0.07	-0.58	-0.58	0.00	0.00	-0.10	-0.10	1.00	0.90	-2.31	0.06	-----	Vehicle	-2.86	-0.52	-0.10	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	**3146.31**	**5243.85**	**352.70**	**587.83**
	U_{12} - L_{11}	-2.13	-2.73	0.11	0.11	-0.54	-0.54	0.00	0.00	-0.10	-0.10	1.00	0.90	-2.13	0.10	-----	Vehicle	-2.73	-0.48	-0.10	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	**1904.01**	**3173.35**	**380.45**	**634.09**
	U_{13} - L_{12}	-2.09	-2.70	0.17	0.17	-0.50	-0.50	0.01	0.01	-0.10	-0.10	1.00	0.90	-2.09	0.15	0.01	Vehicle	-2.70	-0.45	-0.10	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**1139.66**	**1899.44**	**374.27**	**623.78**
	U_{14} - L_{13}	-1.09	-1.71	0.13	0.13	-0.31	-0.31	0.01	0.01	-0.07	-0.07	1.00	0.90	-1.09	0.12	0.01	Vehicle	-1.71	-0.28	-0.07	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**1470.20**	**2450.34**	**599.97**	**999.95**
	U_{15} - L_{14}	-0.80	-1.36	0.10	0.10	-0.32	-0.32	0.02	0.02	-0.06	-0.06	1.00	0.90	-0.80	0.09	0.02	Vehicle	-1.36	-0.29	-0.06	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1620.41**	**2700.69**	**498.37**	**830.62**
	U_{16} - L_{15}	-1.69	-2.23	0.11	0.11	-0.55	-0.55	0.01	0.01	-0.10	-0.10	1.00	0.90	-1.69	0.10	0.01	Vehicle	-2.23	-0.50	-0.10	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1450.58**	**2417.64**	**285.92**	**476.54**
	U_{17} - L_{16}	-1.71	-2.26	0.09	0.09	-0.58	-0.58	0.01	0.01	-0.10	-0.10	1.00	0.90	-1.71	0.08	0.01	Vehicle	-2.26	-0.52	-0.10	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**2006.29**	**3343.81**	**295.47**	**492.45**
	U_{18} - L_{17}	-1.67	-2.16	0.08	0.08	-0.55	-0.55	0.00	0.00	-0.09	-0.09	1.00	0.90	-1.67	0.07	0.00	Vehicle	-2.16	-0.49	-0.09	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**2037.92**	**3396.53**	**288.61**	**481.02**
	U_{19} - L_{18}	-1.45	-1.93	0.08	0.08	-0.53	-0.53	0.00	0.00	-0.09	-0.09	1.00	0.90	-1.45	0.07	0.00	Vehicle	-1.93	-0.47	-0.09	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1937.97**	**3229.95**	**300.95**	**501.58**
	U_{20} - L_{19}	-0.63	-1.37	0.05	0.05	-0.30	-0.30	0.00	0.00	-0.06	-0.06	1.00	0.90	-0.63	0.05	-----	Vehicle	-1.37	-0.27	-0.06	Vehicle	15.75	0.38	2	21.00	5	73.85	92.32	1	226.09125	226.1	**2154.83**	**3591.39**	**387.30**	**645.50**
	U_0 - L_{21}	-0.36	-0.70	0.04	0.04	-0.15	-0.15	0.00	0.00	-0.04	-0.04	1.00	0.90	-0.36	0.03	-----	Vehicle	-0.70	-0.14	-0.04	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**3341.01**	**5568.35**	**825.16**	**1375.26**
	U_{21} - L_{22}	0.02	-0.31	0.07	0.07	-0.08	-0.08	0.01	0.01	-0.02	-0.02	1.00	0.90	0.02	0.06	0.01	Vehicle	-0.31	-0.07	-0.02	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1949.26**	**3248.76**	**1642.97**	**2738.29**
	U_{23} - L_{22}	-0.05	-0.39	0.02	0.02	-0.12	-0.12	0.00	0.00	-0.02	-0.02	1.00	0.90	-0.05	0.02	0.00	Vehicle	-0.39	-0.10	-0.02	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**6671.14**	**11118.57**	**1099.60**	**1832.67**
	U_{24} - L_{23}	-0.39	-0.74	0.04	0.04	-0.20	-0.20	0.00	0.00	-0.04	-0.04	1.00	0.90	-0.39	0.03	0.00	Vehicle	-0.74	-0.18	-0.04	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**3627.91**	**6046.52**	**637.50**	**1062.50**
	U_{25} - L_{24}	-0.62	-1.39	0.05	0.05	-0.37	-0.37	0.00	0.00	-0.06	-0.06	1.00	0.90	-0.62	0.05	0.00	Vehicle	-1.39	-0.34	-0.06	Vehicle	15.75	0.38	2	21.00	5	73.85	92.32	1	226.09125	226.1	**2327.16**	**3878.61**	**308.36**	**513.94**
	U_{26} - L_{25}	-1.40	-1.89	0.09	0.09	-0.55	-0.55	0.00	0.00	-0.09	-0.09	1.00	0.90	-1.40	0.08	0.00	Vehicle	-1.89	-0.49	-0.09	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1827.49**	**3045.81**	**289.99**	**483.31**
	U_{27} - L_{26}	-1.57	-2.07	0.12	0.12	-0.52	-0.52	0.00	0.00	-0.09	-0.09	1.00	0.90	-1.57	0.11	0.00	Vehicle	-2.07	-0.46	-0.09	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1297.81**	**2163.02**	**307.18**	**511.97**
	U_{28} - L_{27}	-1.53	-2.09	0.17	0.17	-0.48	-0.48	0.00	0.00	-0.09	-0.09	1.00	0.90	-1.53	0.15	-----	Vehicle	-2.09	-0.43	-0.09	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**1032.47**	**1720.79**	**357.90**	**596.51**
	U_{29} - L_{28}	-1.40	-1.95	0.22	0.22	-0.41	-0.41	0.00	0.00	-0.08	-0.08	1.00	0.90	-1.40	0.20	-----	Vehicle	-1.95	-0.37	-0.08	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**724.42**	**1207.36**	**385.86**	**643.10**
	U_{30} - L_{29}	-0.59	-1.15	0.16	0.16	-0.22	-0.22	0.00	0.00	-0.04	-0.04	1.00	0.90	-0.59	0.14	0.00	Vehicle	-1.15	-0.20	-0.04	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1008.03**	**1680.05**	**716.75**	**1194.58**
	U_{30} - L_{31}	-1.35	-1.98	0.10	0.10	-0.38	-0.38	0.01	0.01	-0.08	-0.08	1.00	0.90	-1.35	0.09	0.01	Vehicle	-1.98	-0.35	-0.08	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**1937.05**	**3228.42**	**488.57**	**814.29**
	U_{31} - L_{32}	-2.47	-3.07	0.09	0.09	-0.58	-0.58	0.01	0.01	-0.12	-0.12	1.00	0.90	-2.47	0.08	0.01	Vehicle	-3.07	-0.52	-0.12	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**2049.25**	**3415.41**	**322.77**	**537.95**
	U_{32} - L_{33}	-2.33	-2.91	0.06	0.06	-0.56	-0.56	0.00	0.00	-0.11	-0.11	1.00	0.90	-2.33	0.05	-----	Vehicle	-2.91	-0.51	-0.11	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	**3643.38**	**6072.30**	**362.02**	**603.37**
	U_{33} - L_{34}	-2.44	-2.97	0.05	0.05	-0.57	-0.57	0.00	0.00	-0.11	-0.11	1.00	0.90	-2.44	0.04	-----	Vehicle	-2.97	-0.51	-0.11	Vehicle	16.64	0.63	2	13.19	5	73.85	92.32	1	401.93388	401.9	**4328.07**	**7213.45**	**360.03**	**600.05**
	U_{34} - L_{35}	-2.15	-2.63	0.02	0.02	-0.50	-0.50	0.00	0.00	-0.10	-0.10	1.00	0.90	-2.15	0.02	-----	Vehicle	-2.63	-0.45	-0.10	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**9518.17**	**15863.62**	**377.37**	**628.96**
	U_{35} - L_{36}	-2.05	-2.55	0.00	0.00	-0.45	-0.45	0.00	0.00	-0.09	-0.09	1.00	0.90	-2.05	-----	-----	-----	-2.55	-0.41	-0.09	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	-----	-----	**375.44**	**625.74**
	U_{36} - L_{37}	-0.66	-1.43	0.00	0.00	-0.18	-0.18	0.00	0.00	-0.04	-0.04	1.00	0.90	-0.66	-----	-----	-----	-1.43	-0.17	-0.04	Vehicle	15.75	0.38	2	21.00	5	73.85	92.32	1	226.09125	226.1	-----	-----	**624.96**	**1041.60**
	U_{38} - L_{37}	0.55	0.15	0.07	0.07	-0.04	-0.04	0.02	0.02	0.00	0.00	1.00	0.90	0.55	0.06	0.02	Vehicle	0.15	-0.04	-----	Vehicle	16.00	0.44	2	18.06	5	73.85	92.32	1	271.32864	271.3	**2011.26**	**3352.10**	**3238.19**	**5396.99**
	U_{39} - L_{38}	0.25	-0.10	0.10	0.10	-0.15	-0.15	0.01	0.01	-0.01	-0.01	1.00	0.90	0.25	0.09	0.01	Vehicle	-0.10	-0.13	-0.01	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1332.09**	**2220.15**	**861.57**	**1435.95**
	U_{40} - L_{39}	-0.19	-0.54	0.09	0.09	-0.22	-0.22	0.01	0.01	-0.03	-0.03	1.00	0.90	-0.19	0.08	0.01	Vehicle	-0.54	-0.20	-0.03	Vehicle	15.86	0.41	2	19.48	5	73.85	92.32	1	247.09817	247.1	**1363.87**	**2273.12**	**571.75**	**952.91**
	U_{41} - L_{40}	-0.79	-1.21	0.12	0.12	-0.34	-0.34	0.02	0.02	-0.05	-0.05	1.00	0.90	-0.79	0.11	0.02	Vehicle	-1.21	-0.30	-0.05	Vehicle	16.32	0.53	2	15.43	5	73.85	92.32	1	330.48196	330.5	**1453.03**	**2421.72**	**503.49**	**839.15**
	U_{42} - L_{41}	-1.71	-2.19	0.16	0.16	-0.55	-0.55	0.02	0.02	-0.09	-0.09	1.00	0.90	-1.71	0.14	0.02	Vehicle	-2.19	-0.49	-0.09	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1019.14**	**1698.57**	**288.57**	**480.94**
	U_{43} - L_{42}	-1.87	-2.42	0.14	0.14	-0.51	-0.51	0.02	0.02	-0.11	-0.11	1.00	0.90	-1.87	0.12	0.02	Vehicle	-2.42	-0.46	-0.11	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**1398.36**	**2330.60**	**367.29**	**612.15**
	U_{44} - L_{43}	-2.06	-2.63	0.10	0.10	-0.47	-0.47	0.01	0.01	-0.09	-0.09	1.00	0.90	-2.06	0.09	0.01	Vehicle	-2.63	-0.42	-0.09	Vehicle	16.48	0.58	2	14.11	5	73.85	92.32	1	368.41897	368.4	**1903.09**	**3171.81**	**399.10**	**665.17**
Structure 3	U_0 - L_1	-0.86	-1.43	0.04	0.04	-0.32	-0.32	0.00	0.00	-0.04	-0.04	1.00	0.90	-0.86	0.03	0.00	Vehicle	-1.43	-0.29	-0.04	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**4913.45**	**8189.09**	**536.00**	**893.34**
	U_1 - L_2	-1.89	-2.41	0.08	0.08	-0.57	-0.57	0.01	0.01	-0.14	-0.14	1.00	0.90	-1.89	0.07	0.01	Vehicle	-2.41	-0.51	-0.14	Vehicle	16.32	0.54	2	15.25	5	73.85	92.32	1	334.23034	334.2	**2242.36**	**3737.26**	**300.52**	**500.87**
	U_2 - L_3	-1.74	-2.20	0.09	0.09	-0.60	-0.60	0.02	0.02	-0.12	-0.12	1.00	0.90	-1.74	0.08	0.02	Vehicle	-2.20	-0.54	-0.12	Vehicle	16.16	0.50	2	16.03	5	73.85	92.32	1	311.77682	311.8	**1731.67**	**2886.11**	**265.36**	**442.26**
	U_3 - L_4	-0.53	-0.91	0.06	0.06	-0.28	-0.28	0.01	0.01	-0.06	-0.06	1.00	0.90	-0.53	0.05	0.01	Vehicle	-0.91	-0.25	-0.06	Vehicle	16.16	0.49	2	16.63	5	73.85	92.32	1	300.64193	300.6	**2575.52**	**4292.54**	**544.56**	**907.60**
	U_4 - L_5	-0.22	-0.56	0.05

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans Gross Tonnage **36** **tons**

As-Built Load Rating Summary: **HS20 Lane**

Controlling As-Built Ratings

	Inventory	Operating
Maximum Axial Force	1.32	1.82
Maximum Moment (Start)	1.35	2.22
Maximum Moment (End)	1.34	1.85
	Inventory	Operating
Maximum Shear Force	22.5	37.53

Location	Member	Axial Load Case						Moment (Start)						Moment (End)						Controlling Tonnages		Maximum Shear Force			
		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss				Inventory		Operating	
		Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Tonnage	Operating Tonnage	Rating	Tonnage	Rating	Tonnage
Truss - Upper Chord	Structure 1																								
	$U_0 - U_1$	4.78	7.97	6.05	10.06	6.48	10.80	4.77	7.96	5.87	9.82	5.49	10.76	4.77	7.96	7.13	11.99	6.50	10.83	171.60	286.44	234.2	8431	390.33	14052
	$U_1 - U_2$	2.58	4.30	3.67	6.12	2.86	4.75	2.58	4.29	3.68	6.14	2.86	4.75	2.59	4.34	3.67	6.12	2.85	4.75	92.73	154.42	87.2	3139	145.32	5231
	$U_2 - U_3$	2.39	3.99	3.65	6.10	3.86	6.48	2.39	3.98	3.98	6.59	3.86	6.44	2.40	4.00	4.01	6.66	3.88	6.41	85.97	143.43	207.2	7459	345.31	12431
	$U_3 - U_4$	2.37	3.93	3.21	5.36	5.65	7.36	2.36	3.94	3.20	5.34	5.65	7.34	2.36	3.93	3.22	5.36	5.78	9.53	85.03	141.42	102.8	3702	171.38	6170
	$U_4 - U_5$	2.49	4.14	3.29	5.48	5.51	7.19	2.48	4.14	3.29	5.49	5.50	7.18	2.49	4.15	3.90	6.49	5.53	7.18	89.43	149.03	54.7	1968	91.13	3281
	$U_5 - U_6$	3.34	5.61	4.26	7.10	4.18	6.87	3.35	5.58	4.35	7.26	4.20	6.87	9.43	15.69	5.79	9.63	6.68	11.12	120.17	201.01	84.6	3047	141.06	5078
	$U_6 - U_7$	3.08	5.13	4.17	6.99	3.80	6.32	3.08	5.14	4.17	6.97	3.77	6.29	3.12	5.21	4.31	7.16	4.27	7.08	110.92	184.55	223.2	8036	372.03	13393
	$U_7 - U_8$	2.08	3.48	2.68	4.49	2.67	4.45	2.67	4.41	3.68	6.11	6.70	8.86	2.07	3.45	2.81	4.74	2.67	4.41	74.39	124.05	64.8	2331	107.92	3885
	$U_8 - U_9$	1.83	3.05	2.60	4.33	2.98	5.01	1.83	3.08	2.60	4.31	3.01	4.95	4.29	7.16	5.13	8.56	4.32	5.97	65.77	109.69	28.2	1015	46.97	1691
	$U_9 - U_{10}$	4.09	6.75	6.08	10.11	7.07	11.77	5.00	8.24	6.35	10.58	15.63	19.55	4.07	6.80	7.03	11.65	7.07	11.71	146.47	242.98	108.4	3901	180.59	6501
	$U_{10} - U_{11}$	3.43	5.72	4.75	7.91	3.22	5.35	14.39	24.01	18.86	31.43	6.10	10.23	3.42	5.70	5.02	8.41	3.21	5.35	115.66	192.51	49.6	1787	82.75	2979
	$U_{11} - U_{12}$	2.12	3.52	3.34	5.60	2.10	3.51	8.13	13.57	3.26	5.41	2.10	3.53	2.10	3.54	3.23	5.40	2.10	3.51	75.55	126.28	84.5	3044	140.91	5073
	$U_{12} - U_{13}$	2.11	3.54	3.37	5.64	2.54	4.22	2.11	3.52	3.58	6.00	2.52	4.19	2.12	3.54	3.52	5.82	2.54	4.22	75.85	126.56	385.3	13873	642.25	23121
	$U_{13} - U_{14}$	1.68	2.81	2.55	4.28	2.62	4.36	1.69	2.80	2.83	4.72	2.63	4.34	1.69	2.81	2.56	4.27	3.29	4.12	60.46	100.71	159.9	5757	266.51	9595
	$U_{14} - U_{15}$	1.69	2.81	2.53	4.24	2.57	4.29	1.69	2.81	2.52	4.18	2.61	4.33	1.68	2.81	2.54	4.19	2.57	4.29	60.36	101.03	185.0	6661	308.40	11102
	$U_{15} - U_{16}$	2.06	3.44	3.01	5.02	2.91	4.89	2.06	3.44	4.02	6.71	2.94	4.91	2.04	3.40	3.02	5.03	2.95	4.90	73.53	122.41	621.5	22375	1035.90	37292
	$U_{16} - U_{17}$	2.34	3.87	3.24	5.38	3.50	5.86	2.34	3.87	3.24	5.38	3.56	5.97	2.66	4.44	3.21	5.42	3.99	4.91	84.22	139.21	297.2	10699	495.32	17831
	$U_{17} - U_{18}$	2.43	4.12	3.18	5.26	3.28	4.02	2.46	4.11	3.42	5.62	3.24	4.10	2.45	4.07	3.13	5.22	3.55	4.55	87.53	144.80	206.6	7438	344.36	12397
	$U_{18} - U_{19}$	2.65	4.40	3.14	5.27	3.27	4.09	2.65	4.40	3.14	5.27	3.26	4.06	2.63	4.41	2.57	4.31	3.27	4.20	92.41	146.21	93.1	3353	155.25	5589
	$U_{19} - U_{20}$	5.63	9.43	7.51	13.30	8.86	11.07	5.70	9.50	7.99	13.32	8.78	11.07	5.67	9.45	10.91	18.18	11.76	15.13	202.65	339.60	30.5	1099	50.89	1832
	Structure 2																								
	$U_0 - U_1$	5.54	9.14	5.84	9.72	6.08	10.18	8.18	13.69	7.56	12.52	6.10	10.20	5.52	9.20	5.84	9.79	6.10	10.13	198.82	329.12	102.3	3683	170.50	6138
	$U_1 - U_2$	2.99	4.98	2.96	4.95	3.13	5.21	3.02	5.02	5.37	8.93	4.21	7.02	2.95	4.98	2.96	4.97	3.13	5.20	106.36	178.15	151.4	5450	252.30	9083
	$U_2 - U_3$	2.58	4.36	3.09	5.15	2.77	4.57	4.01	6.67	3.57	5.96	6.70	8.32	2.58	4.36	3.08	5.13	2.77	4.57	92.82	156.81	92.8	3341	154.67	5568
	$U_3 - U_4$	2.09	3.49	2.91	4.86	2.33	3.91	2.24	3.74	2.93	4.90	2.34	3.90	2.25	3.75	2.91	4.88	2.35	3.91	75.39	125.75	668.2	24056	1113.70	40093
	$U_4 - U_5$	2.01	3.36	2.78	4.64	2.31	3.80	2.07	3.45	2.79	4.65	2.29	3.82	1.99	3.33	2.79	4.66	2.31	3.80	71.81	119.94	304.7	10968	507.77	18280
	$U_5 - U_6$	1.95	3.26	2.86	4.82	2.31	3.84	1.95	3.26	2.86	4.82	2.30	3.89	1.96	3.28	3.08	5.09	2.30	3.84	70.33	117.31	777.8	28002	1296.39	46670
	$U_6 - U_7$	1.60	2.66	2.37	3.95	2.11	3.51	1.60	2.66	2.45	4.11	2.11	3.54	1.59	2.65	2.57	3.95	2.12	3.52	57.35	95.36	158.3	5697	263.77	9496
	$U_7 - U_8$	1.61	2.69	2.40	3.99	2.13	3.55	1.61	2.69	2.40	3.99	2.13	3.55	1.62	2.71	2.42	4.01	2.13	3.52	58.11	96.78	139.3	5014	232.11	8356
	$U_8 - U_9$	1.79	2.98	2.67	4.44	2.48	4.13	1.79	2.99	2.98	4.97	2.48	4.14	1.78	3.00	2.67	4.48	2.47	4.11	64.26	107.11	235.4	8474	392.30	14123
	$U_9 - U_{10}$	1.90	3.16	2.66	4.45	3.18	5.28	1.90	3.19	2.65	4.41	3.18	5.26	3.35	5.55	2.70	4.52	5.68	7.13	68.33	113.90	59.5	2141	99.11	3568
	$U_{10} - U_{11}$	2.89	4.85	4.32	7.22	4.43	7.39	2.89	4.85	4.31	7.18	4.42	7.31	2.92	4.85	4.32	7.20	4.77	7.61	104.11	174.49	72.6	2614	121.03	4357
	$U_{11} - U_{12}$	3.22	5.37	4.03	6.74	3.66	6.14	3.22	5.37	3.96	6.60	3.58	5.98	5.67	9.46	6.18	10.38	4.51	7.51	115.89	193.25	46.0	1658	76.75	2763
	$U_{12} - U_{13}$	3.98	6.60	4.26	7.09	3.85	6.46	3.79	6.35	4.76	7.98	4.09	6.82	3.83	6.38	4.64	7.81	8.80	11.28	136.57	228.65	341.3	12286	568.79	20476
	$U_{13} - U_{14}$	2.10	3.51	2.54	4.24	2.06	3.40	3.08	5.14	2.72	4.49	5.68	7.10	2.10	3.53	2.67	4.43	2.05	3.43	73.75	122.27	53.8	1936	89.62	3226
	$U_{14} - U_{15}$	1.94	3.26	2.47	4.08	2.10	3.50	1.94	3.25	2.48	4.14	2.09	3.47	1.95	3.24	4.81	8.08	3.59	5.91	69.74	116.73	61.8	2225	103.00	3708
	$U_{15} - U_{16}$	3.65	6.05	4.62	7.74	4.65	7.81	7.10	11.73	8.05	13.56	6.32	10.57	4.80	7.99	7.79	13.14	4.83	8.04	131.33	217.96	608.0	21887	1013.29	36478
	$U_{16} - U_{17}$	4.14	6.91	6.15	10.25	4.93	8.16	4.31	7.19	5.57	9.36	7.50	12.50	3.94	6.60	6.52	10.87	4.73	7.88	141.87	237.72	86.1	3101	143.55	5168
	$U_{17} - U_{18}$	2.88	4.76	4.63	7.72	3.62	5.98	6.92	11.53	10.58	17.64	8.97	14.93	2.74	4.58	4.48	7.46	3.62	6.01	98.80	164.74	47.7	1718	79.55	2864
	$U_{18} - U_{19}$	3.35	5.62	5.18	8.64	4.26	7.07	3.52	5.84	5.79	9.72	4.65	7.82	3.38	5.63	5.46	9.14	4.26	7.06	120.58	202.45	67.7	2438	112.89	4064
	$U_{19} - U_{20}$	2.81	4.68	4.13	6.88	2.78	4.59	4.00	6.70	4.13	6.85	2.77	4.59	2.81	4.71	4.14	6.85	2.78	4.59	99.82	165.22	147.6	5315	246.06	8858
	$U_{20} - U_{21}$	2.52	4.21	3.93	6.58	3.00	5.00	4.12	6.82	4.02	6.69	3.00	4.98	2.51	4.21	4.12	6.92	2.98	4.97	90.48	151.55	302.3	10882	503.79	18136
	$U_{21} - U_{22}$	1.86	3.10	2.75	4.61	2.92	4.82	1.86	3.10	3.08	5.12	2.90	4.82	1.86	3.10	2.75	4.61	3.76	6.31	66.83	111.54	119.6	4305	199.31	7175
	$U_{22} - U_{23}$	1.86	3.11	2.73	4.57	2.86	4.76	1.86	3.11	2.73	4.57	2.85	4.79	1.86	3.11	2.73	4.56	2.86	4.77	66.91	111.87	119.9	4316	199.81	7193
	$U_{23} - U_{24}$	2.41	4.02	3.49	5.79	3.65	6.07	4.62	7.74	7.07	11.76	3.65	6.09	4.82	7.96	3.47	5.81	5.52	9.20	86.90	144.82	309.6	11147	516.07	18578
	$U_{24} - U_{25}$	2.54	4.23	3.52	5.87	4.66	7.71	2.53	4.21	3.53	5.88	5.51	8.48	3.85	6.42	3.51	5.85	5.98	10.00	90.98	151.59	109.5	3940	182.42	6567
	$U_{25} - U_{26}$	3.56	5.91	5.35	8.87	4.87	8.13	3.56	5.91	5.62	9.37	4.88	8.11	3.81	6.34	6.13	10.22	9.44	32.33	128.06	212.75	67.7	2435	112.75	4059
	$U_{26} - U_{27}$	3.34	5.56	5.20	8.76	4.36	6.98	3.18	5.29	4.54	7.58	4.30	6.74	8.87	14.74	11.01	18.25	6.37	10.59	114.37	190.37	42.1	1516	70.20	2527
	$U_{27} - U_{28}$	4.74	7.91	5.54	9.14	4.53	7.40	4.55	7.57	6.50	10.79	5.57	9.34	4.85	8.07	6.29	10.46	4.48	7.47	161.33	266.53	89.8	3234	149.74	5391
	$U_{28} - U_{29}$	4.06	6.80	4.98	8.31	4.21	7.00	6.05	10.16	5.26	8.73	13.84	17.23	4.02	6.68	8.17	13.75	11.44	14.21	144.70	240.36	413.9	14901	689.84	24834
	$U_{29} - U_{30}$	2.22	3.71	2.58	4.31	1.96	3.31	2.31	7.10	2.54	4.23	1.99	3.28	2.23	3.69	2.64	4.35	1.98	3.36	70.57	118.16	57.8	2079	96.26	3465
	$U_{30} - U_{31}$	2.24	3.73	2.67	4.46	2.33	3.86	2.24	3.73	2.66	4.42	2.33	3.85	2.23	3.76	4.56	7.61	2.36	3.93	80.22	134.18	57.5	2069	95.81	3449
	$U_{31} - U_{32}$	3.63	6.01	4.16	6.95	4.43	7.38	9.49	15.93	5.03	8.37	4.17	6.92	3.78	6.30	5.00	8.35	4.36	7.28	130.59	216.47	496.1	17859	826.79	29764
	$U_{32} - U_{33}$	3.19	5.32	3.88	6.45	3.84	6.45	4.47	7.45	6.39	10.64	5.56	9.26	3.29	5.48	4.22	6.97	3.83	6.44	114.87	191.57	47.8	1720	79.61	2866
	$U_{33} - U_{34}$	3.52	5.84	4.58	7.59	3.99	6.68	3.88	6.49	4.56	7.60	5.61	9.06	3.53	5.89	4.59	7.60	4.02	6.70	126.70	210.29	93.1	3352	155.18	5587
	$U_{34} - U_{35}$	2.51	4.20	3.24	5.40	2.55	4.23	5.34	8.89	3.24	5.39	3.38	5.59	2.51	4.18	3.24	5.40	2.53	4.23	90.40	150.58	65.3	2349	108.76	3915
	$U_{35} - U_{36}$	2.26	3.76	3.02	4.97	2.08	3.47	2.25	3.75	2.99	4.99	2.09	3.47	2.26	3.76	3.14	5.25	2.09	3.47	74.86	124.75	256.9	9249	428.20	15415
	$U_{36} - U_{37}$	1.98	3.30	2.65	4.41	1.94	3.23	1.98	3.30	2.65	4.45	1.92	3.20	2.00	3.30	2.67	4.44	1.93	3.21	69.23	115.14	137.6	4955	229.40	8258
	$U_{37} - U_{38}$	1.99	3.30	2.61	4.36	1.88	3.16	1.97	3.29	2.64	4.40	1.88	3.14	1.98	3.29	2.66	4.43	1.88	3.15	67.52	112.87	173.7	6253	289.51	10422
	$U_{38} - U_{39}$	2.30	3.85	2.87	4.80	2.20	3.70	2.31	3.86	3.48	5.76	2.21	3.70	2.31	3.85	2.85	4.75	2.22	3.69	79.13	133.01	586.0	21096	976.65	35159
	$U_{39} - U_{40}$	2.33	3.91	2.63	4.42	2.35	3.88	2.33	3.91	2.64	4.39	2.33	3.86	2.32	3.90	2.66	4.47	2.33	3.87	83.66	139.14	319.5	11502	532.49	19170
	$U_{40} - U_{41}$	2.51	4.17	3.06	5.11	2.54	4.24	2.51	4.17	3.05	5.09	2.56	4.29	2.51	4.18	3.07	5.12	2.53	4.30	90.23	150.18	423.8	15258	706.37	25429
	$U_{41} - U_{42}$	2.86	4.77	3.19	5.32	3.09	5.14	2.86	4.77	3.19	5.32	3.10	5.13	2.85	4.78	3.85	6.43	3.16	5.09	102.75	171.76	80.5	2897	134.11	4828
	$U_{42} - U_{43}$	3.07	5.12	3.50	5.82	3.66	6.13	3.07	5.12	3.50	5.84	3.67	6.07	4.72	7.87	3.57	6.03	3.56	5.93	110.64	184.18	200.5	7218	334.15	12029
	$U_{43} - U_{44}$	4.79	8.04	6.08	10.16	7.67	12.78	4.79	8.04	6.07	10.05	7.67	12.78	4.84	8.08	8.43	14.05	11.74	14.74	172.47	289.82	22.5	811	37.53	1351
	Structure 3																								
	$U_0 - U_1$	7.22	12.00	7.75	12.94	7.50	12.44	7.93	13.10	8.61	14.34	7.48	12.44	7.22	12.05	7.75	12.94	7.44	12.43	259.95	432.14	134.6	4846	224.35	8077
	$U_1 - U_2$	2.93	4.89	3.16	5.27	3.02	5.02	2.97	4.94	3.61	6.01	6.41	8.03	2.95	4.87	3.14	5.22	3.02	5.05	105.32	175.48	78.8	2837	131.36	4729
	$U_2 - U_3$	2.72	4.59	3.45	5.71	2.88	4.75	2.72	4.54	3.64	6.07	2.85	4.77	2.72	4.56	3.64	6.08	2.88	4.75	97.85	163.27	242.9	8746	404.89	14576
	$U_3 - U_4$	2.57	4.35	3.70	6.17	2.66	4.39	3.06	5.10	3.67	6.16	2.67	4.44	2.70	4.48	3.67	6.19	2.67	4.45	92.66	156.62	458.5	16505	764.10	27508
	$U_4 - U_5$	2.26	3.73	3.49	5.75	2.63	4.37	2.74	4.52	3.38	5.69	2.63	4.45	2.26	3.77	3.73	6.21	2.64	4.41	81.23	134.30	1230.7	44304	2051.09	73839
	$U_5 - U_6$	1.80	3.02	2.61	4.31	2.79	4.65	1.80	3.02	2.96	4.94	2.79	4.65	1.81	3.02	2.62	4.33	3.43	4.29	64.88	108.60	181.3	6526	302.14	10877
	$U_6 - U_7$	1.84	3.06	2.63	4.38	2.75	4.60	1.83	3.06	2.63	4.37	2.75	4.60	1.85	3.06	3.00	5.01	2.76	4.60	65.82	110.03	156.5	5633	260.77	9388
	$U_7 - U_8$	2.16	3.62	3.38	5.68	3.05	3.81	2.16	3.62	3.19	5.35	3.07	3.83	4.52	7.55	3.19	5.29	3.06	3.82	77.66	130.20	552.3	19883	920.53	33139
	$U_8 - U_9$	1.92	3.21	2.88	4.83	2.98	3.71	1.92	3.21	2.89	4.82	2.98	3.71	3.94	6.57	2.85	4.80	6.31	7.88	69.08	115.59	68.1	2453	113.57	4089
	$U_9 - U_{10}$	2.58	4.29	4.13	6.89	4.86	6.08	2.58	4.29	4.17	6.94	4.81	6.06	6.72	11.19	18.04	30.12	21.61	29.76	92.93	154.41	45.0	1620	75.01	2701
	$U_{10} - U_{11}$	4.52	7.58	6.18	10.31	7.29	9.18	4.55	7.56	6.22	10.34	7.29	9.14	7.31	12.26	6.82	11.04	7.76	13.02	162.66	272.26	78.9	2839	131.43	4732
	$U_{11} - U_{12}$	2.32	3.87	2.61	4.37	2.74	4.50	3.25	5.48	4.49	7.42	4.87	6.08	2.31	3.85	2.72	4.52	2.72	4.55	83.13	138.63	25.6	923	42.72	1538
	$U_{12} - U_{13}$	2.27	3.78	2.84	4.76	3.10	3.95	2.25	3.80	2.86	4.77	3.09	3.95	6.33	10.52	4.43	7.38	3.69	5.63	80.88	136.09	70.9	2551	118.10	4252
	$U_{13} - U_{14}$	3.10	5.18	4.24	7.10	4.06	6.78	3.86	6.38	4.68	7.75	4.09	6.79	3.11	5.17	4.64	7.74	4.07	6.79	111.77	186.03	331.4	11931	552.34	19884
	$U_{14} - U_{15}$	3.29	5.52	4.51	7.56	4.22	6.99	8.42	14.03	16.25	27.06	4.21	7.05	3.30	5.49	4.54	7.49	4.22	6.99	118.50	197.63	80.3	2892	133.89	4820
	$U_{15} - U_{16}$	2.91	4.85	3.33	5.57	5.06	6.29	2.89	4.82	4.04	6.73	5.03	6.30	2.90	4.83	3.33	5.57	5.99	7.56	104.01	173.51	59.4	2138	98.98	3563
	$U_{16} - U_{17}$	2.92	4.87	3.41	5.67	5.14	6.44	2.92	4.88	3.42	5.69	6.26	7.94	2.91	4.85	4.11	6.85	5.16	6.40	104.83	174.48	125.1	4503	208.46	7505
	$U_{17} - U_{18}$	2.76	4.58	3.36	5.56	4.28	5.35	2.76	4.58	3.62	6.05	4.28	5.35	2.75	4.58	3.35	5.55	4.26	5.35	99.10	164.73	172.4	6205	287.28	10342
	$U_{18} - U_{19}$	2.67	4.42	3.10	5.16	4.17	5.24	2.67	4.42	3.10	5.14	4.20	5.26	2.68	4.45	3.00	4.99	7.58	9.53	96.21	159.03	110.6	3983	184.39	6638
	$U_{19} - U_{20}$	4.91	8.16	6.05	10.06	8.35	10.45	4.91	8.16	6.04	10.04	8.40	10.44	4.90	8.22	10.04	16.75	11.19	13.90	176.48	293.86	29.0	1043	48.29	1738

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans Gross Tonnage **36** **tons**

As-Built Load Rating Summary: **HS20 Lane**

Controlling As-Built Ratings

	Inventory	Operating
Maximum Axial Force	1.32	1.82
Maximum Moment (Start)	1.35	2.22
Maximum Moment (End)	1.34	1.85
	Inventory	Operating
Maximum Shear Force	22.5	37.53

Location	Member	Axial Load Case						Moment (Start)						Moment (End)						Controlling Tonnages		Maximum Shear Force			
		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss				Inventory		Operating	
		Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Tonnage	Operating Tonnage	Rating	Tonnage	Rating	Tonnage
Truss - Lower Chord	Structure 1																								
	L_2 - L_1	21.85	36.39	20.36	33.81	14.93	20.68	27.92	46.59	20.18	33.68	19.72	24.72	27.96	46.65	20.27	33.70	18.37	22.86	537.30	744.47	89.6	3225	149.32	5376
	L_1 - L_2	3.75	6.25	4.66	7.72	3.94	6.57	6.17	10.39	7.37	12.35	3.97	6.56	3.72	6.24	4.65	7.73	3.94	6.57	134.02	224.59	107.7	3876	179.44	6460
	L_2 - L_3	3.37	5.65	4.90	8.11	3.62	6.03	3.38	5.63	4.89	8.14	3.61	6.01	3.38	5.63	5.54	9.28	3.62	6.06	121.19	202.58	620.7	22345	1034.50	37242
	L_3 - L_4	2.74	4.56	3.98	6.68	4.34	7.18	2.74	4.53	4.31	7.21	4.35	7.17	2.73	4.52	4.01	6.68	4.34	7.23	98.27	162.87	158.8	5715	264.60	9525
	L_4 - L_5	2.15	3.58	3.19	5.31	2.41	4.01	2.16	3.61	3.02	5.06	2.41	3.98	6.36	10.63	7.86	13.08	4.15	5.16	77.57	128.92	66.4	2391	110.67	3984
	L_5 - L_6	2.05	3.42	3.22	5.36	2.25	3.75	2.16	3.62	3.21	5.33	2.24	3.74	2.63	4.37	3.29	5.49	2.64	4.41	73.78	123.06	149.1	5369	248.57	8949
	L_6 - L_7	2.58	4.32	3.69	6.08	3.36	5.51	3.25	5.41	4.62	7.65	3.58	5.91	3.22	5.43	4.68	7.88	3.59	5.84	93.01	155.69	253.5	9127	422.53	15211
	L_7 - L_8	1.74	2.89	2.42	4.04	2.30	2.83	3.54	5.90	2.39	3.98	2.26	2.81	1.73	2.91	2.44	4.10	2.25	3.00	62.38	101.10	90.5	3259	150.88	5432
	L_8 - L_9	1.74	2.92	2.50	4.18	2.05	3.45	1.75	2.92	2.59	4.32	2.06	3.45	2.84	4.76	4.49	7.47	2.80	4.57	62.74	105.03	88.4	3183	147.34	5304
	L_9 - L_{10}	2.85	4.76	4.32	7.20	3.91	4.98	4.75	7.93	7.34	12.23	6.72	10.66	4.73	7.90	8.26	13.76	6.70	11.08	102.61	171.20	287.4	10347	479.05	17246
	L_{10} - L_{11}	2.63	4.38	4.17	6.94	4.95	6.17	2.63	4.37	4.24	7.03	6.47	8.45	3.21	5.31	5.26	8.76	5.46	6.78	94.51	157.18	65.8	2370	109.72	3950
	L_{11} - L_{12}	4.29	7.18	4.21	7.00	3.45	5.76	18.63	31.03	27.88	46.64	5.96	9.93	4.29	7.16	4.22	6.99	3.44	5.74	123.90	206.56	93.4	3362	155.67	5604
	L_{12} - L_{13}	3.96	6.61	4.39	7.31	3.20	5.37	3.98	6.65	4.40	7.27	3.22	5.38	3.97	6.63	4.38	7.30	3.20	5.37	115.23	193.42	432.4	15565	720.60	25941
	L_{13} - L_{14}	2.61	4.32	3.38	5.63	3.17	5.28	3.44	5.71	3.44	5.76	3.19	5.34	2.59	4.36	3.38	5.63	3.15	5.30	93.40	155.49	133.7	4815	222.90	8024
	L_{14} - L_{15}	2.77	4.63	3.79	6.34	3.82	6.39	2.77	4.63	3.67	6.09	3.81	6.35	2.75	4.64	3.78	6.35	3.81	6.36	99.12	166.55	226.8	8166	378.03	13609
	L_{15} - L_{16}	4.15	6.93	4.70	7.85	5.31	8.83	4.14	6.90	4.70	7.85	5.38	8.94	4.14	6.85	4.67	7.81	5.37	8.94	148.98	246.54	1116.1	40179	1860.15	66965
	L_{16} - L_{17}	4.37	7.30	4.46	7.47	5.00	8.36	4.37	7.30	4.47	7.48	5.00	8.31	4.33	7.29	4.49	7.46	5.00	8.41	155.87	262.26	232.5	8371	387.55	13952
	L_{17} - L_{18}	6.49	10.95	5.89	9.82	5.64	9.42	8.01	13.42	5.89	9.82	6.27	10.34	6.35	10.58	5.85	9.86	5.22	8.68	187.98	312.59	184.5	6644	307.58	11073
	L_{18} - L_{19}	4.10	6.83	5.21	8.69	3.76	6.23	8.99	14.98	6.02	10.14	6.06	9.25	7.10	11.82	5.98	10.14	6.09	10.19	135.44	224.36	72.0	2591	119.96	4318
	L_{19} - L_{20}	3.21	5.36	13.17	22.17	6.57	10.78	3.23	5.36	12.72	21.33	15.24	18.97	3.22	5.35	12.71	21.19	15.97	19.91	115.71	192.70	83.7	3014	139.55	5024
	L_2 - L_1	15.10	25.34	18.24	30.52	11.94	15.03	14.85	24.67	18.39	30.50	10.91	15.19	14.82	24.73	18.28	30.52	11.79	14.86	392.86	535.08	85.0	3061	141.71	5102
	L_1 - L_2	5.61	9.27	4.78	7.96	8.06	13.47	5.60	9.32	4.73	7.91	6.78	11.37	5.62	9.34	4.78	7.96	6.78	11.37	170.34	284.93	104.7	3769	174.48	6281
	L_2 - L_3	4.59	7.71	4.41	7.38	4.81	8.02	4.62	7.72	6.24	10.40	4.85	8.01	4.61	7.66	4.42	7.34	4.81	8.02	158.70	264.37	185.9	6694	309.90	11156
	L_3 - L_4	3.62	6.11	3.99	6.66	3.70	6.11	5.95	9.88	9.36	15.57	6.29	10.48	3.71	6.18	4.01	6.67	3.70	6.11	130.23	219.91	327.8	11802	546.41	19671
	L_4 - L_5	3.56	5.94	4.16	6.94	3.62	6.00	6.78	11.42	4.20	7.01	3.65	6.00	3.58	5.92	4.16	6.97	3.62	6.00	128.29	213.18	666.6	23997	1110.96	39995
	L_5 - L_6	3.09	5.18	3.90	6.55	3.27	5.44	3.09	5.15	3.91	6.57	3.27	5.44	3.07	5.14	3.90	6.51	3.27	5.43	110.63	185.14	500.1	18002	833.43	30003
	L_6 - L_7	2.78	4.65	3.77	6.32	2.96	4.93	2.80	4.63	3.77	6.32	2.96	4.93	2.78	4.65	4.12	6.92	2.95	4.93	99.95	166.81	633.6	22810	1056.01	38016
	L_7 - L_8	2.24	3.74	3.17	5.22	2.79	4.66	2.24	3.74	3.15	5.24	2.79	4.66	2.24	3.77	3.15	5.31	2.82	4.66	80.72	134.54	202.5	7289	337.44	12148
	L_8 - L_9	2.70	4.50	3.51	5.84	3.45	5.72	2.70	4.50	3.51	5.84	3.45	5.72	3.86	6.49	3.50	5.79	6.28	10.49	97.21	161.99	214.0	7705	356.69	12841
	L_9 - L_{10}	3.27	5.42	4.46	7.42	3.61	6.06	3.27	5.42	4.45	7.41	3.61	6.06	3.52	5.86	4.47	7.45	3.75	6.24	117.86	195.05	127.7	4597	212.80	7661
	L_{10} - L_{11}	2.38	3.97	3.09	5.11	2.23	3.71	2.26	3.76	3.10	5.15	2.18	3.86	3.36	5.62	3.24	5.41	3.28	5.46	78.47	131.63	94.5	3401	157.44	5668
	L_{11} - L_{12}	2.17	3.65	2.92	4.85	2.30	3.79	2.77	4.59	2.94	4.86	2.28	3.88	2.16	3.60	2.91	4.89	2.25	3.74	77.77	129.67	110.7	3984	184.45	6640
	L_{12} - L_{13}	2.32	3.91	3.16	5.26	2.80	4.66	3.76	6.28	4.90	8.16	3.51	5.58	2.31	3.87	3.13	5.24	3.44	5.75	83.34	139.32	264.4	9519	440.68	15864
	L_{13} - L_{14}	1.63	2.74	2.10	3.50	1.91	3.18	1.64	2.71	2.17	3.60	1.88	3.16	1.65	2.75	2.11	3.52	1.92	3.16	58.65	97.65	55.9	2012	93.16	3354
	L_{14} - L_{15}	1.83	2.72	2.03	3.39	1.88	2.81	1.65	2.74	2.01	3.38	1.71	2.82	1.66	2.72	2.10	3.49	1.71	2.80	58.74	97.84	57.3	2064	95.53	3439
	L_{15} - L_{16}	2.09	3.44	2.84	4.69	2.67	4.43	3.81	6.35	2.88	4.82	3.60	7.03	6.72	11.21	9.15	15.24	3.93	6.45	75.17	123.86	207.8	7480	346.28	12466
	L_{16} - L_{17}	1.80	3.00	2.62	4.41	2.82	4.71	1.80	3.01	2.64	4.35	2.80	4.71	3.81	6.31	5.66	9.86	5.16	8.52	64.69	107.86	130.7	4705	217.81	7841
	L_{17} - L_{18}	2.01	3.34	3.19	5.24	3.25	5.42	2.01	3.36	3.28	5.37	5.68	7.63	2.79	4.66	3.22	5.43	4.04	6.69	72.46	120.32	124.8	4491	207.93	7485
	L_{18} - L_{19}	2.59	4.33	3.20	5.38	3.62	6.03	2.60	4.28	3.24	5.40	3.62	6.03	2.59	4.31	3.22	5.36	3.61	6.02	93.11	154.16	102.1	3676	170.18	6127
	L_{19} - L_{20}	3.29	5.46	3.99	6.65	4.41	7.35	3.36	5.59	4.20	7.00	4.83	8.05	3.30	5.49	3.99	6.59	4.39	7.32	118.47	196.57	166.7	6003	277.92	10005
	L_{20} - L_{21}	5.59	9.33	5.72	9.49	4.18	6.99	5.73	9.59	5.71	9.46	4.18	6.99	5.56	9.28	5.69	9.49	4.19	6.98	150.50	251.35	302.9	10906	504.89	18176
	L_{21} - L_{22}	3.14	5.24	3.96	6.58	3.33	5.81	5.44	9.10	6.59	11.03	3.53	5.81	3.13	5.23	3.88	6.44	3.51	5.85	112.61	188.23	106.9	3849	178.19	6415
	L_{22} - L_{23}	3.11	5.20	4.02	6.70	3.94	6.63	3.14	5.19	3.85	6.40	3.98	6.57	3.12	5.20	4.05	6.72	3.94	6.63	112.02	186.72	116.3	4187	193.84	6978
	L_{23} - L_{24}	5.14	8.53	5.32	8.91	6.43	10.72	5.14	8.53	5.32	8.91	6.43	10.72	6.04	10.12	5.34	8.91	8.13	13.52	184.88	307.26	332.7	11979	554.58	19965
	L_{24} - L_{25}	4.81	8.02	4.16	6.92	4.42	7.41	4.52	7.54	4.25	7.09	4.93	8.20	4.85	8.15	4.52	7.54	5.41	9.01	149.91	249.20	133.4	4801	222.27	8002
	L_{25} - L_{26}	4.34	7.32	3.67	6.13	3.06	5.15	4.24	7.06	3.78	6.31	3.79	6.31	4.47	7.45	3.82	6.34	4.94	6.49	110.24	185.36	102.6	3693	170.97	6155
	L_{26} - L_{27}	2.41	4.02	3.75	6.24	2.89	4.81	2.41	4.02	3.76	6.23	3.21	5.34	2.42	4.03	3.72	6.19	2.89	4.80	86.68	144.56	108.7	3912	181.13	6521
	L_{27} - L_{28}	2.18	3.64	2.97	4.90	2.41	4.08	3.18	5.29	5.93	9.89	4.71	7.78	2.20	3.67	2.93	4.88	2.43	4.05	78.64	131.15	128.1	4612	213.53	7687
	L_{28} - L_{29}	2.28	3.77	2.96	4.97	2.89	4.87	4.46	7.49	3.02	5.07	5.83	7.54	2.26	3.78	2.95	4.92	4.78	6.04	81.36	135.66	296.9	10690	494.91	17817
	L_{29} - L_{30}	1.82	3.03	2.16	3.63	2.06	3.43	1.80	3.00	2.18	3.61	2.07	3.44	1.82	3.02	2.17	3.62	2.07	3.45	64.91	107.99	55.5	1997	92.47	3329
	L_{30} - L_{31}	2.19	3.67	2.19	3.65	1.32	2.22	2.18	3.67	2.17	3.65	1.35	2.22	2.18	3.63	2.24	3.78	1.34	2.24	47.67	79.83	57.3	2062	95.46	3436
	L_{31} - L_{32}	2.97	4.95	3.21	5.35	2.25	3.76	5.39	8.91	3.21	5.31	2.25	3.82	7.33	12.18	5.48	9.15	4.20	7.12	80.83	135.50	239.9	8637	399.88	14396
	L_{32} - L_{33}	2.67	4.41	2.89	4.83	2.00	3.40	2.67	4.44	2.88	4.80	2.02	3.38	3.98	6.66	2.89	4.82	2.71	4.33	72.16	121.57	114.4	4118	190.64	6863
	L_{33} - L_{34}	3.39	5.60	3.02	5.03	2.61	4.36	4.16	6.94	3.16	5.26	2.68	4.50	3.22	5.35	3.10	5.15	2.50	4.14	89.83	149.14	127.5	4589	212.45	7648
	L_{34} - L_{35}	4.50	7.44	4.48	7.45	4.78	7.92	4.50	7.50	4.47	7.41	4.75	7.92	4.17	6.95	4.50	7.55	4.50	7.53	150.16	250.25	133.4	4803	222.35	8005
	L_{35} - L_{36}	3.67	6.08	3.96	6.65	4.16	6.92	4.61	7.69	3.97	6.64	6.20	10.33	3.66	6.10	3.96	6.65	4.16	6.93	131.85	218.86	229.5	8262	382.51	13770
	L_{36} - L_{37}	2.89	4.83	3.45	5.76	3.14	5.18	4.39	7.33	3.43	5.71	3.11	5.19	2.90	4.83	3.45	5.76	3.11	5.23	104.18	173.76	94.8	3414	158.04	5689
	L_{37} - L_{38}	3.09	5.18	3.87	6.46	3.37	5.64	3.10	5.18	4.19	6.98	3.36	5.59	3.10	5.16	3.84	6.38	3.38	5.65	111.17	185.83	538.9	19401	898.21	32335
	L_{38} - L_{39}	3.32	5.54	3.84	6.39	3.67	6.13	3.32	5.54	3.81	6.36	3.67	6.13	3.33	5.56	3.82	6.37	3.68	6.13	119.54	199.28	584.6	21047	974.39	35078
	L_{39} - L_{40}	3.70	6.14	4.29	7.18	4.53	7.58	3.70	6.14	4.28	7.22	4.53	7.58	3.70	6.17	9.53	15.88	4.57	7.54	133.07	221.07	706.9	25447	1178.09	42411
	L_{40} - L_{41}	3.85	6.47	4.58	7.62	4.46	7.50	3.85	6.47	4.53	7.57	4.50	7.51	5.89	9.78	8.62	14.19	5.18	8.64	138.73	232.98	259.4	9337	432.27	15562
	L_{41} - L_{42}	5.25	8.78	5.27	8.72	5.88	9.79	5.27	8.78	5.28	8.82	5.99	9.95	5.29	8.76	6.67	11.03	5.96	9.98	189.01	313.82	159.4	5739	265.71	9565
	L_{42} - L_{43}	7.59	12.64	6.06	10.08	6.25	10.36	7.97	13.28	6.06	10.19	6.71	11.09	8.03	13.41	6.50	10.78	7.03	11.64	218.14	362.87	44.8	1613	74.66	2688
	L_{43} - L_{44}	6.86	11.50	21.64	36.00	19.38	24.90	6.88	11.49	22.21	37.02	14.32	18.09	6.89	11.46	22.34	37.06	25.07	31.50	247.11	412.50	85.2	3065	141.92	5109
	Structure 3																								
	L_2 - L_1	5.90	9.90	22.24	37.26	4.70	5.88	5.93	9.89	20.18	33.52	4.74	5.93	5.94	9.92	20.23	33.72	4.74	5.92	169.25	211.73	85.0	3059	141.63	5099
	L_1 - L_2	4.08	6.80	4.81	8.04	3.94	6.50	12.04	20.08	4.82	8.04	13.10	16.39	11.92	19.88	4.81	8.04	13.17	16.53	141.89	234.16	89.6	3227	149.42	5379
	L_2 - L_3	5.87	9.80	5.10	8.51	6.05	10.10	5.89	9.81	6.98	11.64	5.36	8.94	7.20	11.94	5.07	8.51	6.92	11.51	182.57	306.19	223.4	8042	372.32	13404
	L_3 - L_4	4.86	8.05	4.57	7.63	4.33	7.22	4.80	7.99	5.32	8.87	4.36	7.28	4.87	8.11	4.58	7.57	4.37	7.22	155.82	260.01	316.6	11397	527.66	18996
	L_4 - L_5	4.69	7.90	5.08	8.39	4.20	7.03	5.18	8.71	5.08	8.45	4.20	7.00	4.72	7.77	5.06	8.41	4.26	7.09	151.22	252.01	1479.4	53257	2465.59	88761
	L_5 - L_6	2.96	4.92	3.84	6.39	3.77	6.25	2.97	4.95	3.86	6.43	3.79	6.33	2.94	4.89	3.78	6.30	3.75	6.31	105.77	176.15	208.8	7516	347.98	12527
	L_6 - L_7	2.59	4.31	3.72	6.22	3.78	6.29	2.59	4.31	3.54	5.86	3.80	6.29	4.48	7.42	3.74	6.24	5.70	7.13	93.20	155.34	138.0	4967	229.98	8279
	L_7 - L_8	3.33	5.52	4.12	6.86	5.27	8.79	3.33	5.52	4.12	6.86	5.24	8.72	3.35	5.51	4.11	6.88	5.27	8.75	119.83	198.19	538.6	19390	897.67	32316
	L_8 - L_9	3.35	5.58	4.23	7.07	5.43	9.05	3.38	5.65	4.22	7.04	5.39	8.96	10.90	18.32	11.77	19.54	5.95	9.91	120.48	200.85	81.8	2945	136.35	4908
	L_9 - L_{10}	3.45	5.76	4.47	7.44	4.45	7.43	3.73	6.23	4.93	8.24	4.42	7.43	3.44	5.74	4.47	7.44	4.46	5.78	123.98	206.54	62.0	2232	103.31	3719
	L_{10} - L_{11}	3.05	5.09	4.51	7.46	4.85	6.06	5.24	8.74	7.59	12.67	7.33	12.25	5.25	8.73	8.44	14.02	7.44	11.78	109.96	183.34	230.0	8280	383.34	13800
	L_{11} - L_{12}	1.88	3.17	2.63	4.38	2.60	3.28	2.76	4.54	4.21	6.98	2.65	4.36	1.89	3.14	2.62	4.39	2.52	3.26	67.84	113.07	83.2	2995	138.63	4991
	L_{12} - L_{13}	1.92	3.20	2.40	4.00	1.92	2.42	1.93	3.21	2.42	4.01	2.46	3.19	1.91	3.16	2.45	4.09	2.79	3.47	68.67	87.21	93.2	3356	155.36	5593
	L_{13} - L_{14}	2.99	4.31	3.62	6.02	3.94	4.97	3.14	5.23	4.66	7.78	4.31	5.39	3.13	5.18	5.28	8.81	4.47	5.62	93.32	155.02	337.0	12133	561.70	20221
	L_{14} - L_{15}	2.10	3.48	3.28	5.46	3.08	5.16	2.36	3.94	3.23	5.35	3.08	5.16	2.08	3.46	3.30	5.44	3.07	5.11	75.06	124.39	144.2	5190	240.28	8650
	L_{15} - L_{16}	1.89	3.14	3.19	5.35	3.56	5.93	5.06	8.42	8.45	14.09	3.56	5.93	1.88	3.14	3.00	5.00	3.56	5.89	67.81	113.03	74.5	2681	124.11	4468
	L_{16} - L_{17}	3.07	5.14	4.22	7.03	5.00	6.26	3.09	5.11	4.06	6.75	4.74	6.30	3.07	5.12	4.22	7.03	4.75	6.33	110.43	184.04	222.9	8024	371.50	13374
	L_{17} - L_{18}	3.51	5.84	4.24	7.07	5.54	6.91	3.49	5.84	4.24	7.07	5.50	7.25	3.51	5.87	4.21	7.01	5.46	7.21	125.79	210.30	431.7	15543	719.56	25904
	L_{18} - L_{19}	3.78	6.30	4.45	7.40	5.75	7.20	3.81	6.33	4.42	7.41	5.80	7.26	3.78	6.33	4.46	7.42	8.40	13.90	136.05	226.84	87.8	3159	146.26	5265
	L_{19} - L_{20}	16.86	28.14	35.22	58.74	31.79	49.13	14.33	24.03	26.45	44.18	35.72	50.08	14.33	23.98	26.46	44.13	33.26	55.36	515.93	863.24	102.9	3705	171.53	6175

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans Gross Tonnage **36** **tons**

As-Built Load Rating Summary: **HS20 Lane**

Controlling As-Built Ratings

	Inventory	Operating
Maximum Axial Force	1.32	1.82
Maximum Moment (Start)	1.35	2.22
Maximum Moment (End)	1.34	1.85
	Inventory	Operating
Maximum Shear Force	22.5	37.53

Location	Member	Axial Load Case						Moment (Start)						Moment (End)						Controlling Tonnages		Maximum Shear Force			
		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss				Inventory		Operating	
		Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Tonnage	Operating Tonnage	Rating	Tonnage	Rating	Tonnage
Truss - Verticals	Structure 1	U_0 - L_0	1.92	3.19	2.46	4.09	1.55	2.57	1.91	3.17	2.33	3.88	1.55	2.57	1.90	3.22	2.33	3.92	1.55	2.57	55.64	92.67	77.0	2772	128.35	4621
		U_1 - L_1	3.14	5.22	4.35	7.23	3.19	5.28	3.13	5.17	4.35	7.29	3.17	5.28	3.12	5.20	4.35	7.23	3.17	5.28	112.15	186.24	80.3	2889	133.75	4815
		U_2 - L_2	4.63	7.73	5.83	9.71	2.40	3.98	4.64	7.75	5.81	9.76	2.40	4.00	4.62	7.76	5.81	9.76	2.40	4.00	86.26	143.46	102.1	3675	170.14	6125
		U_3 - L_3	7.36	12.21	8.85	14.76	5.08	8.47	7.34	12.21	7.93	13.21	5.12	8.45	7.34	12.21	7.93	13.21	4.59	7.18	165.30	258.34	137.5	4949	229.11	8248
		U_4 - L_4	3.02	5.07	2.92	4.84	3.74	6.23	3.02	5.07	2.92	4.85	6.79	10.48	3.03	5.02	2.92	4.85	8.82	11.08	105.02	174.16	127.4	4587	212.34	7644
		U_5 - L_5	1.96	3.29	2.32	3.88	2.67	4.45	1.95	3.25	2.32	3.88	2.70	4.47	1.95	3.26	2.32	3.88	2.67	4.45	70.29	117.15	81.2	2922	135.30	4871
		U_6 - L_6	1.80	3.01	1.98	3.31	2.42	4.01	1.80	2.99	2.74	4.59	2.48	3.12	1.95	3.28	1.99	3.30	2.42	4.00	64.94	107.75	88.3	3179	147.19	5299
		U_7 - L_7	1.53	2.53	1.84	3.06	1.55	2.01	1.53	2.54	1.84	3.04	2.09	2.69	1.52	2.52	1.84	3.06	1.54	2.01	54.54	72.28	95.9	3453	159.84	5754
		U_8 - L_8	2.39	3.99	2.61	4.41	3.32	4.26	3.66	6.15	4.36	7.26	3.94	6.60	3.68	6.09	4.36	7.26	4.35	6.68	85.96	143.54	203.0	7307	338.28	12178
		U_9 - L_9	2.11	3.52	2.54	4.25	2.06	3.44	2.10	3.50	2.54	4.30	2.06	3.43	2.11	3.48	2.55	4.28	2.09	3.50	74.10	123.53	85.7	3084	142.76	5139
		U_{10} - L_{10}	2.63	4.38	3.71	6.25	3.04	5.05	2.63	4.38	3.75	6.21	3.07	5.11	2.65	4.71	4.28	7.08	3.14	5.15	94.50	157.56	154.1	5548	256.83	9246
		U_{11} - L_{11}	2.38	3.97	3.27	5.50	2.92	4.82	2.38	3.98	3.28	5.46	2.92	4.86	2.38	3.97	3.29	5.45	2.94	4.88	85.52	142.82	80.1	2884	133.51	4806
		U_{12} - L_{12}	2.19	3.65	2.99	5.00	1.83	3.05	2.19	3.64	3.00	4.97	1.84	3.07	2.19	3.64	3.00	4.97	1.83	3.06	65.86	109.64	87.3	3142	145.46	5236
		U_{13} - L_{13}	1.73	2.90	2.30	3.83	3.18	3.99	1.75	2.92	2.29	3.81	3.16	3.99	1.75	2.92	2.29	3.81	3.32	4.89	62.36	104.33	88.4	3183	147.38	5306
		U_{14} - L_{14}	3.46	5.81	3.48	5.82	3.48	5.77	3.47	5.80	3.28	5.49	5.42	8.24	3.47	5.77	3.28	5.49	7.12	9.79	118.17	197.68	278.7	10033	464.48	16721
		U_{15} - L_{15}	4.30	7.23	4.65	7.76	5.43	9.04	4.30	7.24	4.68	7.79	5.39	9.00	4.30	7.20	4.68	7.79	5.39	9.00	154.76	259.08	146.4	5271	244.01	8784
		U_{16} - L_{16}	2.26	3.77	2.87	4.75	4.23	7.13	2.25	3.76	3.86	6.45	4.23	7.06	2.26	3.79	3.86	6.45	4.23	7.06	81.08	135.38	135.2	4867	225.31	8111
		U_{17} - L_{17}	1.86	3.05	2.71	4.52	2.70	4.43	1.84	3.04	2.72	4.56	2.67	4.45	1.82	3.04	2.72	4.56	2.67	4.45	65.55	109.43	137.9	4965	229.84	8274
		U_{18} - L_{18}	2.02	3.36	3.19	5.37	2.60	3.21	2.01	3.35	3.21	5.36	3.37	4.31	2.00	3.34	3.21	5.36	2.60	3.21	72.05	115.72	102.6	3694	171.03	6157
		U_{19} - L_{19}	2.30	3.86	3.62	6.05	3.04	3.79	2.31	3.82	3.63	6.06	3.92	4.95	2.30	3.84	3.63	6.03	3.09	3.85	82.77	136.31	132.6	4775	221.05	7958
		U_{20} - L_{20}	1.60	2.68	2.70	4.50	2.13	2.66	1.60	2.65	2.70	4.50	2.74	3.48	1.60	2.68	2.71	4.51	2.13	2.66	57.62	95.46	295.2	10626	491.97	17711
	Structure 2	U_0 - L_0	2.45	4.05	2.44	4.06	1.62	2.70	2.45	4.05	2.43	4.07	1.61	2.69	2.44	4.06	2.43	4.07	1.61	2.69	57.99	96.66	214.6	7726	357.70	12877
		U_1 - L_1	2.86	4.77	3.30	5.49	2.72	4.56	2.87	4.77	3.26	5.48	2.71	4.57	2.86	4.79	3.26	5.48	2.72	4.57	97.50	164.31	176.0	6334	293.25	10557
		U_2 - L_2	2.49	4.15	3.42	5.66	2.48	4.12	2.51	4.17	3.43	5.67	2.51	4.17	2.51	4.14	3.43	5.67	2.51	4.17	89.14	148.40	114.6	4126	191.00	6876
		U_3 - L_3	2.17	3.61	3.16	5.27	2.11	3.47	2.16	3.62	3.15	5.26	2.07	3.48	2.17	3.61	3.15	5.26	2.07	3.48	74.68	124.82	175.6	6323	292.74	10538
		U_4 - L_4	2.29	3.86	3.62	6.03	2.80	4.65	2.30	3.84	3.61	6.01	2.80	4.66	2.31	3.82	3.61	6.01	2.80	4.65	82.37	137.56	128.5	4627	214.20	7711
		U_5 - L_5	3.21	5.38	4.94	8.24	4.31	7.17	3.21	5.36	4.96	8.26	4.29	7.15	3.21	5.39	4.96	8.26	4.29	7.15	115.56	193.06	161.2	5802	268.59	9669
		U_6 - L_6	6.75	11.29	8.02	13.36	4.97	8.29	6.71	11.17	8.95	14.89	4.98	8.33	6.71	11.19	8.97	14.92	4.98	8.33	178.98	298.54	192.1	6916	320.17	11526
		U_7 - L_7	3.27	5.48	3.35	5.60	2.37	3.94	9.25	15.43	12.71	21.18	7.12	10.97	9.20	15.33	12.69	21.22	8.85	11.09	85.15	141.72	361.0	12996	601.68	21660
		U_8 - L_8	2.72	4.54	3.38	5.64	2.80	4.66	2.73	4.56	3.37	5.63	2.79	4.64	2.72	4.56	3.37	5.63	2.80	4.66	97.81	163.34	95.8	3447	159.59	5745
		U_9 - L_9	2.82	4.67	3.28	5.49	2.18	3.63	2.82	4.69	4.38	7.26	3.31	5.45	2.81	4.70	3.28	5.45	3.27	5.43	78.47	130.84	100.8	3628	167.94	6046
		U_{10} - L_{10}	2.79	4.66	3.80	6.27	2.89	4.83	2.79	4.70	3.79	6.30	2.89	4.83	2.79	4.64	3.79	6.30	2.89	4.83	100.32	167.09	132.3	4763	220.51	7938
		U_{11} - L_{11}	2.28	3.84	2.67	4.46	2.42	4.00	2.40	4.04	2.65	4.46	2.49	4.16	2.40	4.05	2.65	4.46	2.42	4.00	82.08	138.28	158.0	5686	263.25	9477
		U_{12} - L_{12}	2.36	3.94	2.79	4.65	2.36	3.95	2.45	4.10	2.78	4.68	2.36	3.95	2.45	4.07	2.79	4.68	2.36	3.95	84.93	141.83	203.6	7329	339.32	12216
		U_{13} - L_{13}	2.06	3.46	1.92	3.21	2.44	4.07	1.85	3.08	2.55	4.25	2.61	4.34	1.86	3.11	2.53	4.21	2.59	4.33	66.69	111.04	205.7	7404	342.76	12340
		U_{14} - L_{14}	2.38	3.95	2.57	4.25	2.89	4.87	3.22	5.37	4.76	7.87	4.79	8.02	3.25	5.41	4.76	7.87	4.78	8.02	85.52	142.26	299.2	10772	498.71	17954
		U_{15} - L_{15}	3.33	5.57	3.43	5.71	2.98	4.99	3.33	5.57	3.40	5.67	2.99	4.97	3.33	5.55	3.40	5.67	2.99	4.97	107.28	179.05	165.3	5950	275.47	9917
		U_{16} - L_{16}	2.40	3.99	2.90	4.82	1.79	2.99	2.39	3.99	2.89	4.82	2.75	4.55	2.39	3.99	2.90	4.82	2.72	4.53	64.62	107.56	172.4	6208	287.41	10347
		U_{17} - L_{17}	2.13	3.55	2.48	4.15	2.71	4.52	2.14	3.58	2.49	4.15	2.68	4.46	2.13	3.57	2.50	4.17	2.68	4.46	76.65	127.70	102.0	3671	169.97	6119
		U_{18} - L_{18}	1.93	3.20	2.36	3.91	2.65	4.42	1.92	3.22	2.36	3.92	2.64	4.38	1.92	3.22	2.36	3.92	2.64	4.38	69.06	115.28	92.9	3346	154.91	5577
		U_{19} - L_{19}	2.37	3.94	3.45	5.75	2.58	4.27	2.34	3.93	3.47	5.78	2.59	4.30	2.34	3.93	3.46	5.78	2.58	4.27	84.39	141.34	138.4	4984	230.75	8307
		U_{20} - L_{20}	2.42	4.07	3.35	5.61	1.77	2.95	2.41	4.07	3.35	5.58	3.47	5.79	2.44	4.06	3.35	5.58	3.47	5.79	63.75	106.34	139.1	5009	231.92	8349
		U_{21} - L_{21}	2.74	4.57	3.51	5.88	4.77	7.96	2.75	4.57	3.50	5.88	4.80	7.96	2.75	4.58	3.50	5.88	4.82	7.97	98.78	164.54	126.0	4537	210.06	7562
		U_{22} - L_{22}	3.45	5.75	3.68	6.16	3.54	5.90	10.44	17.39	13.06	21.62	6.64	11.05	10.43	17.24	13.06	21.62	6.65	11.09	124.35	206.87	502.7	18099	837.90	30164
		U_{23} - L_{23}	3.41	5.71	3.76	6.25	3.76	6.26	3.39	5.67	3.77	6.23	3.79	6.31	3.42	5.66	3.77	6.23	3.76	6.26	122.22	203.73	141.6	5098	236.03	8497
		U_{24} - L_{24}	2.07	3.44	2.54	4.22	1.56	2.62	2.06	3.44	3.56	5.95	1.56	2.61	2.05	3.43	3.56	5.95	1.56	2.61	56.02	93.82	135.9	4892	226.50	8154
		U_{25} - L_{25}	2.25	3.74	3.07	5.10	2.15	3.59	2.24	3.71	3.08	5.13	2.15	3.59	2.22	3.74	3.08	5.13	2.15	3.59	77.40	129.34	115.3	4153	192.25	6921
		U_{26} - L_{26}	2.00	3.35	2.34	3.94	2.57	4.26	2.41	4.02	2.35	3.93	2.57	4.26	2.01	3.34	2.35	3.93	2.57	4.26	72.04	120.19	85.8	3088	142.98	5147
		U_{27} - L_{27}	2.17	3.63	2.43	4.05	2.57	4.31	2.17	3.62	2.44	4.06	2.94	4.88	2.18	3.63	2.44	4.06	2.58	4.34	78.03	130.19	91.6	3299	152.73	5498
		U_{28} - L_{28}	2.12	3.54	2.19	3.67	2.46	4.15	2.13	3.54	2.77	4.62	2.65	4.44	2.12	3.54	2.21	3.67	2.57	4.80	76.35	127.46	138.4	4982	230.66	8304
		U_{29} - L_{29}	2.83	4.70	2.90	4.83	3.55	5.91	2.82	4.69	2.92	4.88	3.55	5.91	2.81	4.69	2.92	4.85	3.55	5.91	101.30	168.68	136.0	4895	226.62	8158
		U_{30} - L_{30}	2.61	4.38	2.62	4.36	2.97	4.95	5.11	8.51	4.18	6.96	4.32	7.19	5.15	8.58	4.18	6.96	4.67	7.19	93.85	156.98	348.5	12544	580.76	20907
		U_{31} - L_{31}	2.94	4.90	2.86	4.76	2.32	3.90	2.93	4.88	2.84	4.70	2.30	3.82	2.92	4.87	2.86	4.76	1.65	2.71	59.36	97.54	234.0	8423	389.96	14039
		U_{32} - L_{32}	2.59	4.30	3.05	5.09	2.76	4.59	2.61	4.35	3.06	5.08	2.80	4.59	2.58	4.31	3.05	5.09	2.75	4.57	92.73	154.69	247.7	8917	412.84	14862
		U_{33} - L_{33}	2.56	4.29	2.91	4.84	2.92	4.88	2.58	4.28	2.73	4.57	2.92	4.85	2.59	4.30	2.91	4.84	2.95	4.91	92.20	154.25	189.8	6831	316.25	11385
		U_{34} - L_{34}	3.39	5.64	4.69	7.80	3.30	5.49	3.42	5.69	4.64	7.74	3.26	5.43	3.41	5.66	4.83	8.06	3.30	5.49	117.40	195.47	155.7	5606	259.53	9343
		U_{35} - L_{35}	3.16	5.24	3.54	5.90	3.57	5.95	3.13	5.22	4.45	7.42	3.57	5.97	3.14	5.20	4.45	7.42	3.57	5.97	112.82	187.21	105.5	3799	175.87	6331
		U_{36} - L_{36}	2.59	4.31	3.45	5.74	3.31	5.55	2.58	4.30	3.47	5.78	3.30	5.52	2.58	4.31	3.47	5.78	3.30	5.52	92.76	154.76	90.0	3242	150.07	5403
		U_{37} - L_{37}	3.25	5.40	3.40	5.66	2.20	3.68	8.87	14.80	3.30	5.53	7.95	9.92	8.84	14.80	3.15	5.23	5.63	8.81	79.35	132.60	308.3	11100	513.89	18500
		U_{38} - L_{38}	8.40	14.04	7.03	11.70	5.10	8.49	8.38	13.98	7.03	11.69	5.10	8.49	8.38	13.98	7.03	11.69	5.10	8.49	183.59	305.78	280.4	10094	467.32	16823
		U_{39} - L_{39}	2.99	4.98	3.45	5.75	3.95	6.56	2.99	4.99	4.59	7.68	3.94	6.59	2.98	4.98	4.59	7.68	3.94	6.59	107.23	179.14	178.3	6420	297.20	10699
		U_{40} - L_{40}	2.41	4.01	3.08	5.13	2.69	4.48	2.41	4.01	3.09	5.17	2.69	4.48	2.41	4.01	3.09	5.17	2.69	4.48	86.67	144.38	116.1	4179	193.48	6965
		U_{41} - L_{41}	2.24	3.72	2.94	4.89	2.19	3.67	2.22	3.73	2.94	4.90	2.19	3.67	2.22	3.70	2.95	4.90	2.19	3.67	78.97	132.05	145.1	5223	241.79	8704
		U_{42} - L_{42}	2.40	4.03	3.32	5.53	2.85	4.73	2.39	3.98	3.32	5.51	2.85	4.73	2.40	4.01	3.32	5.51	2.85	4.73	85.91	143.22	95.5	3438	159.18	5731
		U_{43} - L_{43}	2.67	4.39	3.58	5.91	3.40	5.67	2.63	4.39	3.54	5.96	3.40	5.67	2.65	4.41	3.54	5.96	3.40	5.67	94.79	157.97	123.7	4453	206.14	7421
		U_{44} - L_{44}	1.98	3.33	2.63	4.38	2.87	4.81	1.99	3.32	2.62	4.37	2.68	4.46	2.00	3.32	2.64	4.41	2.87	4.81	71.44	119.51	265.9	9571	443.12	15952
	Structure 3	U_0 - L_0	2.74	4.57	2.73	4.53	1.72	2.87	2.74	4.57	2.70	4.57	1.72	2.87	2.71	4.56	2.71	4.57	1.72	2.87	62.05	103.26	232.0	8352	386.67	13920
		U_1 - L_1	3.13	5.24	3.68	6.13	2.76	4.56	3.14	5.22	3.65	6.10	2.76	4.60	3.11	5.22	3.65	6.10	2.76	4.60	99.23	164.19	197.0	7092	328.32	11820
		U_2 - L_2	2.61	4.33	3.80	6.33	2.45	4.05	2.61	4.32	3.79	6.31	2.43	4.05	2.61	4.35	3.79	6.31	2.45	4.05	87.38	145.95	124.1	4469	206.89	7448
		U_3 - L_3	2.23	3.72	3.35	5.55	1.92	3.22	2.22	3.74	3.32	5.54	1.93	3.23	2.23	3.71	3.32	5.54	1.93	3.23	69.17	115.80	174.9	6295	291.45	10492
		U_4 - L_4	2.70	4.47	3.92	6.50	1.94	3.23	2.68	4.45	3.93	6.53	1.94	3.24	2.67	4.46	3.93	6.53	1.94	3.24	69.70	116.39	145.5	5238	242.49	8730
		U_5 - L_5	3.51	5.85	4.65	7.68	9.08	11.26	3.53	5.86	4.64	7.68	7.70	9.62	3.50	5.85	4.64	7.68	5.60	8.65	126.18	210.44	128.2	4616	213.71	7694
		U_6 - L_6	3.42	5.70	3.54	5.90	3.59	5.95	2.58	4.32	3.53	5.86	6.01	9.34	2.60	4.32	3.53	5.86	9.23	11.50	93.02	155.63	391.7	14100	652.80	23501
		U_7 - L_7	2.13	3.54	2.38	3.99	2.77	4.62	2.14	3.55	2.38	3.98	2.73	4.59	2.13	3.54	2.38	3.98	2.73	4.59	76.55	127.35	92.8	3341	154.69	5569
		U_8 - L_8	2.21	3.68	2.47	4.12	3.02	5.02	2.21	3.69	3.04	5.08	3.38	5.58	2.22	3.68	3.04	5.08	3.02	5.02	79.66	132.55	82.3	2962	137.11	4936
		U_9 - L_9	2.41	4.03	3.10	5.10	3.14	5.23	2.41	4.01	3.07	5.11	3.15	5.28	2.42	4.03	3.07	5.11	3.15	5.28	86.61	144.47	68.1	2451	113.46	4085
		U_{10} - L_{10}	2.66	4.45	3.49	5.80	2.64	4.38	2.66	4.45	3.49	5.82	2.76	3.49	2.80	4.65	3.49	5.82	2.99	5.00	95.04	125.59	121.8	4386	203.04	7309
		U_{11} - L_{11}	1.96	3.24	2.33	3.88	1.43	1.82	1.95	3.25	2.33	3.92	2.10	2.63	1.96	3.26	2.34	3.91	1.43	1.85	51.40	65.58	70.4	2534	117.32	4223
		U_{12} - L_{12}	2.48	4.16	2.36	3.95	3.18	4.07	3.47	5.80	4.54	7.59	4.37	7.17	3.49	5.78	4.54	7.59	4.93	7.45	84.98	142.30	207.5	7471	345.90	12452
		U_{13} - L_{13}	2.30	3.85	2.26	3.75	1.95	3.22	2.30	3.85	2.27	3.75	1.95	3.28	2.30	3.83	2.27	3.75	1.98	3.30	70.03	115.99	116.2	4182	193.62	6970
		U_{14} - L_{14}	2.48	4.14	2.89	4.84	1.67	2.78	2.47	4.11	2.89	4.83	1.66	2.77	2.89	4.83	2.89	4.84	2.05	2.90	59.67	99.62	105.9	3811	176.44	6352
		U_{15} - L_{15}	2.24	3.68	2.43	4.07	3.66	4.58	2.23	3.73	2.44	4.06	3.41	4.43	2.23	3.72	2.43	4.08	3.84	5.15	80.20	132.58	85.7	3086	142.86	5143
		U_{16} - L_{16}	3.05	5.12	2.97	4.92	3.36	5.59	3.08	5.10	2.94	4.86	7.66	10.94	3.06	5.11	2.92	4.88	6.82	10.51	105.04	175.03	118.1	4251	196.81	7085
		U_{17} - L_{17}	7.90	13.26	8.67	14.47	6.41	10.69	7.89	13.19	7.89	13.14	6.85	11.48	7.89	13.19	7.89	13.14	6.40	10.62	230.51	382.47	181.0	6517	301.71	10861
		U_{18} - L_{18}	3.44	5.77	3.48	5.79	7.23	12.05	3.44	5.76	5.78	9.62	7.23	12.04	3.45	5.72	5.78	9.62	7.23	12.04	123.88	205.96	99.9	3598	166.57	5996
		U_{19} - L_{19}	2.74	4.60	3.44	5.76	4.50	5.55	2.76	4.57	3.46	5.72	5.35	7.00	2.76	4.60	3.46	5.72	4.50	5.55	98.50	164.62	54.9	1978	91.55	3296
		U_{20} - L_{20}	1.59	2.67	2.23	3.73	1.95	2.50	6.16	10.30	2.24	3.74	2.98	3.85	1.60	2.67	2.24	3.74	1.98	2.47	57.36	88.86	116.8	4198	194.34	6996

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans Gross Tonnage **36** **tons**

As-Built Load Rating Summary: **HS20 Lane**

Controlling As-Built Ratings

	Inventory	Operating
Maximum Axial Force	1.32	1.82
Maximum Moment (Start)	1.35	2.22
Maximum Moment (End)	1.34	1.85
	Inventory	Operating
Maximum Shear Force	22.5	37.53

Location	Member	Axial Load Case						Moment (Start)						Moment (End)						Controlling Tonnages		Maximum Shear Force			
		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss				Inventory		Operating	
		Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Tonnage	Operating Tonnage	Rating	Tonnage	Rating	Tonnage
Truss - Diagonals	Structure 1	U_0 - L_1	3.57	5.88	5.02	8.41	3.69	6.16	3.53	5.89	4.79	7.98	13.09	16.35	3.53	5.89	4.82	8.00	3.72	6.17	127.14	211.74	162.7	5856	271.12	9760
		U_1 - L_2	3.86	6.42	5.09	8.49	3.45	5.77	3.83	6.38	5.10	8.53	3.44	5.72	3.82	6.38	5.08	8.56	6.00	7.94	123.73	205.97	715.6	25761	1192.65	42935
		U_2 - L_3	5.69	9.56	6.71	11.23	3.27	5.45	5.70	9.57	6.78	11.27	3.37	5.66	6.41	10.68	6.77	11.23	3.27	5.44	117.55	195.83	781.9	28150	1303.23	46916
		U_3 - L_4	4.15	6.93	5.12	8.48	2.92	4.87	4.21	7.01	5.71	9.53	4.44	7.43	4.22	7.04	6.38	10.64	3.68	6.18	104.94	175.24	1832.6	65973	3054.29	109954
		U_3 - L_4	2.24	3.75	2.76	4.60	3.96	6.61	2.52	4.22	3.16	5.24	5.25	8.39	2.53	4.21	5.06	8.43	3.93	6.52	80.75	135.13	630.3	22689	1050.42	37815
		U_4 - L_5	2.05	3.42	2.87	4.76	4.22	7.01	2.28	3.82	3.84	6.41	5.76	9.07	2.04	3.42	2.88	4.75	4.31	7.16	73.52	122.96	219.1	7889	365.23	13148
		U_5 - L_6	2.13	3.54	2.59	4.32	3.88	6.48	2.08	3.47	2.58	4.27	3.90	6.48	2.19	3.65	2.58	4.29	4.67	5.92	74.81	124.79	178.3	6419	297.20	10699
		U_6 - L_7	2.27	3.78	2.74	4.60	4.65	5.82	2.10	3.50	2.92	4.88	5.94	7.74	2.37	3.95	2.74	4.60	4.68	5.81	75.45	125.87	292.9	10545	488.20	17575
		U_7 - L_8	3.16	5.22	3.98	6.58	3.40	5.67	3.60	6.00	4.01	6.74	3.36	5.59	3.16	5.26	3.86	6.44	3.68	6.11	113.62	187.94	418.9	15080	698.15	25133
		U_8 - L_{10}	3.07	5.12	4.17	6.92	3.09	5.16	3.42	5.70	4.42	7.37	3.07	5.16	3.10	5.16	4.15	6.91	3.36	5.63	110.45	184.43	241.5	8693	402.45	14488
		U_{10} - L_{11}	2.80	4.67	4.21	6.96	3.33	5.56	3.17	5.29	5.27	8.75	3.52	5.40	2.79	4.66	4.20	7.02	3.34	5.56	100.46	167.73	255.7	9206	426.19	15343
		U_{11} - L_{12}	2.60	4.33	3.72	6.21	2.73	4.55	2.88	4.80	4.11	6.88	3.00	4.53	2.62	4.37	3.73	6.22	2.72	4.54	93.77	156.00	299.3	10773	498.76	17955
		U_{12} - L_{13}	2.20	3.68	2.84	4.74	4.89	6.12	2.20	3.68	2.84	4.74	2.56	3.88	2.20	3.70	2.83	4.73	4.91	6.19	79.12	132.34	238.4	8581	397.28	14302
		U_{13} - L_{14}	2.18	3.63	2.58	4.29	4.11	6.87	2.19	3.67	2.58	4.29	4.10	6.85	2.19	3.63	2.45	4.08	7.31	9.12	78.47	130.75	564.2	20310	940.30	33851
		U_{14} - L_{14}	5.57	9.32	7.58	12.63	9.10	15.17	5.57	9.36	6.93	11.59	9.09	15.16	12.72	21.21	11.19	18.60	35.95	45.11	200.48	335.57	1781.1	64120	2968.54	106867
		U_{14} - L_{15}	2.52	4.18	4.16	6.98	5.70	9.50	2.50	4.17	4.17	6.99	5.65	9.42	2.52	4.17	4.19	6.95	5.67	9.41	90.07	150.07	456.3	16425	760.42	27375
		U_{17} - L_{16}	1.86	3.08	2.81	4.66	3.37	5.56	1.86	3.08	2.83	4.68	3.37	5.56	1.87	3.08	3.58	5.93	3.36	5.63	67.03	110.97	363.3	13078	605.47	21797
		U_{18} - L_{17}	2.00	3.33	3.43	5.70	3.70	6.18	2.00	3.33	3.43	5.69	3.70	6.18	2.01	3.33	3.44	5.73	3.70	6.18	72.17	119.78	206.0	7416	343.33	12360
		U_{19} - L_{19}	1.93	3.21	3.54	5.93	3.86	6.40	1.91	3.19	3.54	5.93	3.86	6.40	1.92	3.20	3.59	5.90	3.86	6.40	68.75	114.95	221.2	7963	368.65	13271
		U_{20} - L_{19}	2.14	3.52	3.40	5.68	3.81	4.75	7.64	12.75	3.42	5.70	3.81	5.06	2.12	3.52	3.42	5.70	3.77	4.78	76.22	126.56	519.7	18711	866.23	31184
	Structure 2	U_0 - L_1	2.98	4.98	3.31	5.52	2.37	3.93	3.01	4.99	3.29	5.47	6.71	9.93	3.01	4.99	3.29	5.47	2.35	3.92	84.68	140.98	242.7	8736	404.46	14551
		U_1 - L_2	3.04	5.06	3.34	5.56	2.28	3.82	3.03	5.10	3.34	5.56	2.28	3.82	3.04	5.06	3.34	5.56	2.30	3.82	82.05	137.40	243.7	8773	406.15	14622
		U_2 - L_3	2.56	4.28	3.33	5.53	2.25	3.78	2.56	4.28	3.33	5.53	2.25	3.78	2.56	4.28	3.34	5.57	2.25	3.75	80.89	135.17	202.9	7306	338.24	12176
		U_3 - L_4	2.47	4.16	3.43	5.75	2.29	3.80	2.47	4.16	3.43	5.75	2.29	3.80	2.48	4.12	3.67	6.10	2.30	3.81	82.46	136.85	347.4	12505	578.96	20842
		U_4 - L_5	2.97	4.95	4.08	6.74	3.43	5.72	2.97	4.95	4.09	6.81	3.43	5.72	2.99	4.95	4.07	6.75	3.41	5.72	107.06	178.34	381.9	13749	636.54	22916
		U_5 - L_6	4.26	7.13	5.77	9.64	5.13	8.59	4.26	7.09	5.76	9.62	5.13	8.59	4.25	7.09	5.68	9.56	5.15	8.58	152.87	255.25	530.0	19079	883.29	31798
		U_6 - L_7	5.02	8.35	3.84	6.41	4.21	7.03	5.03	10.05	5.35	8.86	3.90	6.49	4.97	8.39	4.48	7.40	4.21	6.97	138.41	230.64	1446.1	52061	2410.24	86768
		U_7 - L_7	3.43	5.72	3.84	6.39	3.27	5.43	3.40	5.71	3.84	6.43	3.28	5.42	3.46	5.72	5.21	8.59	4.25	7.01	117.87	194.96	453.6	16329	755.99	27216
		U_8 - L_8	2.05	3.39	3.32	5.51	2.63	4.39	2.06	3.42	3.32	5.51	2.63	4.37	2.05	3.39	3.31	5.52	2.35	3.92	73.65	122.03	241.0	8676	401.68	14461
		U_9 - L_9	2.24	3.73	2.94	4.89	2.44	4.05	2.24	3.73	2.94	4.89	3.04	4.72	2.24	3.73	2.91	4.86	2.44	4.05	80.60	134.43	243.5	8764	405.76	14607
		U_{11} - L_{10}	2.06	3.44	3.40	5.65	2.69	4.55	2.07	3.45	3.12	5.20	2.74	4.58	2.06	3.44	3.39	5.59	2.90	4.76	74.13	123.73	231.5	8335	385.90	13892
		U_{12} - L_{11}	2.09	3.48	2.45	4.09	2.58	4.29	2.04	3.42	2.43	4.04	2.60	4.34	2.09	3.49	2.46	4.10	2.65	4.42	73.53	122.94	232.0	8353	386.72	13922
		U_{13} - L_{12}	1.79	3.00	2.20	3.66	2.63	4.39	1.79	2.99	2.21	3.66	2.59	4.32	1.79	3.00	2.22	3.71	2.63	4.39	64.50	107.65	204.6	7367	341.06	12278
		U_{14} - L_{13}	2.17	3.67	2.74	4.51	4.14	6.94	2.17	3.63	3.18	5.29	3.74	6.26	2.35	3.90	2.70	4.55	4.11	6.87	78.12	130.53	306.1	11019	510.12	18364
		U_{14} - L_{15}	3.38	5.69	3.57	5.95	2.87	4.76	4.17	6.99	3.77	6.29	2.87	4.76	3.40	5.65	5.65	3.57	5.95	2.79	4.64	100.51	167.17	457.9	16483	763.11	27472
		U_{15} - L_{16}	2.68	4.48	2.75	4.60	1.96	3.24	2.68	4.48	2.75	4.60	1.96	3.24	2.68	4.48	2.75	4.60	1.96	3.26	70.41	116.61	224.6	8084	374.25	13473
		U_{16} - L_{17}	2.18	3.63	2.65	4.39	2.45	4.08	2.18	3.64	2.65	4.39	2.43	4.00	2.19	3.64	2.65	4.39	2.57	4.28	78.42	130.69	191.4	6892	319.07	11487
		U_{17} - L_{19}	1.97	3.29	2.56	4.29	2.34	3.90	1.97	3.29	2.56	4.29	2.27	3.79	1.98	3.29	2.57	4.26	2.32	3.90	70.84	118.29	175.2	6305	291.92	10509
		U_{18} - L_{19}	2.78	4.58	4.06	6.78	2.68	4.49	3.00	5.01	3.28	5.47	2.69	4.50	3.02	5.04	3.28	5.47	2.68	4.49	96.34	161.46	222.3	8001	370.43	13335
		U_{19} - L_{20}	2.88	4.81	4.11	6.85	2.74	4.57	2.88	4.81	4.10	6.83	2.74	4.57	2.88	4.82	4.12	6.85	3.88	6.48	98.74	164.67	236.2	8503	393.64	14171
		U_{20} - L_{21}	2.71	4.48	3.27	5.45	4.25	7.08	2.68	4.48	3.27	5.45	4.23	7.02	2.71	4.48	3.20	5.33	4.27	7.15	96.59	161.20	376.0	13536	626.67	22560
		U_{21} - L_{22}	4.52	7.53	4.85	8.06	5.62	9.35	4.52	7.53	5.00	8.34	6.76	11.30	6.42	10.75	9.03	14.94	7.69	12.76	162.67	271.25	805.8	29010	1343.07	48350
		U_{22} - L_{21}	5.19	8.60	5.62	9.35	5.26	8.75	5.17	8.60	5.52	9.19	5.26	8.76	6.54	10.86	7.94	13.15	6.49	10.87	186.06	309.57	1160.9	41791	1934.79	69652
		U_{24} - L_{23}	2.30	3.86	3.57	5.96	3.51	5.85	2.32	3.83	3.57	5.96	3.49	5.85	2.31	3.85	3.62	6.01	3.38	5.65	82.97	137.75	448.1	16132	746.87	26887
		U_{25} - L_{24}	2.51	4.16	3.48	5.82	2.43	4.06	2.49	4.17	3.48	5.82	2.44	4.06	2.51	4.17	4.34	7.22	2.45	4.06	87.51	146.14	247.3	8902	412.15	14837
		U_{26} - L_{25}	2.49	4.14	3.56	5.95	2.63	4.40	2.48	4.16	3.57	5.88	2.62	4.40	2.49	4.13	3.66	6.16	2.63	4.40	89.24	148.79	223.4	8044	372.41	13407
		U_{27} - L_{26}	2.05	3.41	2.32	3.86	2.41	4.04	2.04	3.40	2.33	3.88	2.43	4.02	2.05	3.43	2.34	3.93	2.45	4.08	73.34	122.31	182.6	6573	304.30	10955
		U_{28} - L_{27}	2.00	3.33	2.41	4.03	2.60	4.33	2.00	3.33	2.40	4.01	2.60	4.33	2.00	3.34	2.41	4.04	2.64	4.37	71.86	119.76	182.0	6553	303.36	10921
		U_{29} - L_{28}	2.21	3.68	2.17	3.62	2.82	4.70	2.21	3.68	2.17	3.62	2.83	4.68	2.11	3.53	2.17	3.62	2.82	4.70	76.14	127.22	194.9	7018	324.90	11697
		U_{30} - L_{29}	2.69	4.46	2.80	4.65	4.11	6.87	2.94	4.89	3.52	5.86	5.40	9.00	2.90	4.85	2.76	4.61	4.11	6.87	95.92	160.41	372.3	13404	620.56	22340
		U_{32} - L_{31}	3.45	5.76	3.46	5.76	2.79	4.67	3.90	6.56	3.66	6.13	2.83	4.71	3.42	5.71	3.46	5.76	2.82	4.72	100.32	168.16	421.9	15190	703.24	25317
		U_{31} - L_{32}	2.72	4.54	2.70	4.52	2.06	3.42	2.73	4.55	2.70	4.52	2.05	3.43	2.72	4.54	2.70	4.52	2.10	3.51	73.91	123.08	225.7	8126	376.21	13544
		U_{32} - L_{33}	2.50	4.17	2.88	4.80	2.40	4.02	2.50	4.20	2.89	4.80	2.40	4.03	2.50	4.20	2.88	4.80	2.43	4.03	86.40	144.80	226.2	8144	377.02	13573
		U_{33} - L_{34}	2.96	4.96	3.90	6.47	2.41	4.00	3.01	4.98	3.90	6.47	2.37	3.98	3.72	6.15	3.65	6.02	3.48	5.80	85.42	143.31	248.9	8962	414.89	14936
		U_{34} - L_{35}	2.97	4.97	4.18	6.94	2.59	4.32	2.97	4.99	4.08	6.79	2.86	4.29	3.01	4.98	4.13	6.91	3.61	5.97	93.26	154.51	249.5	8981	415.79	14968
		U_{35} - L_{36}	2.87	4.73	3.53	5.92	2.55	4.17	2.87	4.72	3.53	5.92	2.55	4.17	2.87	4.73	3.55	5.90	3.44	5.70	91.65	150.29	216.4	7791	360.71	12986
		U_{36} - L_{37}	3.42	5.70	3.27	5.43	4.39	7.32	3.45	5.77	3.27	5.44	3.27	5.44	4.74	7.98	6.39	10.53	4.38	7.34	117.62	195.50	327.4	11787	545.68	19645
		U_{37} - L_{37}	3.89	6.49	5.87	9.80	4.42	7.41	4.83	8.10	7.26	12.02	5.21	8.60	3.89	6.51	7.24	12.07	4.54	7.56	140.11	233.57	1274.1	45867	2123.47	76445
		U_{39} - L_{38}	3.69	6.14	5.53	9.24	5.42	9.08	3.70	6.14	5.52	9.17	5.42	9.03	3.68	6.14	5.54	9.20	5.45	9.06	132.52	220.95	786.7	28322	1311.23	47204
		U_{40} - L_{39}	2.90	4.81	3.28	5.47	3.49	5.82	2.88	4.81	3.31	5.48	3.49	5.82	2.88	4.82	4.23	7.07	3.49	5.82	103.59	172.99	418.8	15078	698.03	25129
		U_{41} - L_{40}	2.22	3.68	3.26	5.45	2.49	4.14	2.22	3.69	3.24	5.40	2.49	4.15	2.20	3.68	3.23	5.39	2.49	4.14	79.36	132.52	342.1	12315	570.16	20526
		U_{42} - L_{41}	2.25	3.75	3.33	5.49	2.56	4.25	2.25	3.75	3.33	5.49	2.56	4.31	2.25	3.76	3.32	5.53	2.56	4.25	81.03	135.10	190.4	6856	317.41	11427
		U_{43} - L_{42}	2.42	4.02	3.65	6.10	3.26	5.43	2.41	4.00	3.65	6.10	3.22	5.39	2.42	4.02	3.62	6.10	3.26	5.43	86.85	144.06	198.7	7152	331.10	11920
		U_{44} - L_{43}	2.53	4.21	3.48	5.83	3.45	5.73	8.11	13.51	3.49	5.78	3.44	5.82	2.53	4.20	3.50	5.84	3.48	5.81	90.99	151.23	430.9	15514	718.22	25856
	Structure 3	U_0 - L_1	3.09	5.16	3.56	5.88	2.46	4.12	3.09	5.16	3.56	5.93	8.79	10.85	3.09	5.16	3.56	5.93	2.47	4.16	88.55	148.30	264.0	9506	440.08	15843
		U_1 - L_2	3.28	5.49	3.68	6.12	2.30	3.82	3.29	5.42	3.68	6.12	2.30	3.82	3.29	5.42	3.68	6.12	2.30	3.82	82.63	137.44	288.1	10373	480.21	17288
		U_2 - L_3	3.07	5.11	4.16	6.95	2.47	4.12	3.07	5.11	4.00	6.67	2.48	4.16	3.07	5.08	4.13	6.89	2.47	4.12	88.97	148.44	225.1	8104	375.17	13506
		U_3 - L_4	2.68	4.52	3.63	6.03	2.23	3.73	2.70	4.53	3.61	6.07	2.23	3.73	2.70	4.52	3.63	6.03	2.23	3.71	80.38	133.71	376.7	13560	627.80	22601
		U_4 - L_5	3.42	5.65	3.94	6.59	8.02	10.03	3.42	5.65	3.94	6.59	3.22	5.17	3.42	5.70	3.97	6.56	8.02	10.03	116.05	186.24	405.1	14585	675.23	24308
		U_5 - L_6	5.83	9.70	6.47	10.75	4.04	6.73	5.87	9.69	6.52	10.91	4.34	6.91	9.90	16.42	12.68	21.09	4.05	6.75	145.29	242.15	1102.0	39673	1836.70	66121
		U_7 - L_6	2.47	4.09	2.77	4.62	3.25	5.40	2.46	4.10	2.77	4.62	3.24	5.38	3.09	5.17	2.95	4.91	2.96	4.84	88.39	147.35	766.3	27587	1277.19	45979
		U_8 - L_7	2.07	3.45	3.02	5.00	3.57	5.96	2.08	3.47	3.02	5.01	3.77	6.28	2.08	3.44	3.01	5.04	3.54	5.91	74.61	123.81	264.1	9508	440.17	15846
		U_9 - L_8	2.42	4.03	3.26	5.44	4.05	6.67	2.57	4.29	3.54	5.87	4.25	6.75	2.43	4.06	3.81	6.37	4.04	6.75	87.19	145.08	301.9	10870	503.22	18116
		U_{10} - L_9	2.75	4.57	3.82	6.33	4.45	7.38	2.85	4.76	4.07	6.78	4.75	7.53	2.73	4.54	3.83	6.38	4.44	7.38	98.23	163.47	239.2	8609	398.58	14349
		U_{11} - L_{10}	2.85	4.76	3.61	6.04	3.79	6.32	2.77	4.60	3.62	6.04	3.81	6.32	2.85	4.76	3.61	6.01	4.78	6.19	99.88	165.49	219.0	7883	364.94	13138
		U_{12} - L_{11}	2.90	4.86	3.55	5.89	4.40	5.65	2.84	4.75	3.73	6.18	5.19	6.73	3.06	5.11	3.46	5.78	4.40	5.60	102.32	170.86	345.4	12434	575.64	20723
		U_{12} - L_{13}	3.37	5.62	3.37	5.61	2.87	4.76	3.77	6.27	3.72	6.17	2.81	4.67	3.36	5.59	3.39	5.64	2.88	4.80	101.01	168.03	354.1	12748	590.17	21246
		U_{13} - L_{14}	3.24	5.39	3.28	5.47	2.57	4.28	3.37	5.61	3.32	5.53	2.55	4.26	3.22	5.37	3.28	5.47	2.91	4.85	91.94	153.23	196.1	7061	326.91	11769
		U_{14} - L_{15}	2.69	4.49	3.14	5.22	3.74	4.68	3.30	5.50	3.79	6.33	3.90	4.94	2.68	4.50	3.16	5.23	3.74	4.68	96.52	161.75	218.4	7861	363.94	13102
		U_{15} - L_{16}	2.50	4.16	2.89	4.83	5.88	7.42	2.95	4.92	3.33	5.54	5.13	7.32	2.96	4.89	4.64	7.74	5.07	7.40	89.95	149.89	541.6	19498	902.68	32497
		U_{17} - L_{16}	4.35	7.23	4.98	8.30	5.18	6.53	4.13	6.88	6.19	10.40	6.05	10.19	6.32	10.53	5.95	9.96	6.05	10.21	148.57	234.97	1581.0	56917	2635.03	94861
		U_{18} - L_{17}	3.59	5.96	7.06	11.76	8.21	13.59	3.59	5.98	4.68	7.76	8.15	13.67	4.88	8.20	5.44	9.04	13.53	22.55	129.19	214.61	931.6	33538	1552.70	55897
		U_{19} - L_{19}	2.92	4.88	3.81	6.38	7.07	11.76	2.92	4.88	3.80	6.38	7.07	11.76	2.93	4.84	5.19	8.71	7.04	11.78	105.15	174.26	476.1	17140	793.50	28566
		U_{20} - L_{19}	3.10	5.16	4.00	6.65	6.12	7.66	2.99	5.01	4.01	6.68	6.03	7.97	7.33	12.16	4.01	6.68	6.07	7.59	107.55	180.26	372.6	13414	621.02	22357

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans Gross Tonnage **36** **tons**

As-Built Load Rating Summary: **HS20 Lane**

Controlling As-Inspected Ratings

	Inventory	Operating
Maximum Axial Force	1.31	1.81
Maximum Moment (Start)	1.31	2.24
Maximum Moment (End)	1.31	1.85
	Inventory	Operating
Maximum Shear Force	22.5	37.53

Location	Member	Axial Load Case						Moment (Start)						Moment (End)						Controlling Tonnages		Maximum Shear Force			
		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss				Inventory		Operating	
		Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Tonnage	Operating Tonnage	Rating	Tonnage	Rating	Tonnage
Truss - Upper Chord	Structure 1																								
		$U_0 - U_1$	4.75	7.94	6.02	10.08	6.49	10.80	7.41	12.36	5.81	9.79	5.49	10.75	4.77	7.96	7.16	11.94	6.48	10.82	171.71	285.71	234.2	8431	390.33	14052
		$U_1 - U_2$	2.58	4.30	3.67	6.14	2.84	4.75	2.58	4.31	3.68	6.13	2.84	4.75	2.59	4.33	3.67	6.14	2.85	4.76	92.81	154.93	87.2	3139	145.32	5231
		$U_2 - U_3$	2.39	4.00	3.64	6.10	3.86	6.43	2.39	3.98	3.98	6.59	3.85	6.45	2.40	4.00	3.99	6.66	3.88	6.49	85.97	143.24	207.2	7459	345.31	12431
		$U_3 - U_4$	2.37	3.95	3.19	5.36	5.64	7.36	2.36	3.94	3.20	5.36	5.64	7.36	2.36	3.93	3.20	5.34	5.78	9.53	85.11	141.64	102.8	3702	171.38	6170
		$U_4 - U_5$	2.49	4.14	3.29	5.49	5.51	7.19	2.48	4.14	3.29	5.49	5.50	7.18	2.48	4.15	3.89	6.49	5.53	7.18	89.21	148.95	54.7	1968	91.13	3281
		$U_5 - U_6$	3.35	5.58	4.24	7.07	4.18	6.87	3.33	5.54	4.34	7.27	4.20	6.85	9.43	15.61	5.77	9.62	6.68	11.10	119.99	199.54	84.6	3047	141.06	5078
		$U_6 - U_7$	3.06	5.13	4.19	6.95	3.80	6.32	3.06	5.13	4.18	6.97	3.77	6.29	3.07	5.14	4.29	7.20	4.22	7.10	110.32	184.55	223.2	8036	372.03	13393
		$U_7 - U_8$	2.08	3.45	2.68	4.49	2.66	4.43	2.64	4.41	3.68	6.13	6.66	9.86	2.06	3.43	2.82	4.68	2.67	4.39	74.13	123.42	64.8	2331	107.92	3885
		$U_8 - U_9$	1.82	3.05	2.60	4.33	3.00	5.01	1.85	3.08	2.58	4.31	3.02	5.01	4.23	7.07	5.09	8.55	4.33	6.03	65.59	109.91	28.2	1015	46.97	1691
		$U_9 - U_{10}$	4.09	6.82	6.08	10.13	7.07	11.76	4.99	8.31	6.35	10.55	15.62	19.52	4.07	6.84	6.98	11.66	7.07	11.76	146.40	245.42	108.4	3901	180.59	6501
		$U_{10} - U_{11}$	3.44	5.72	4.74	7.91	3.21	5.35	14.45	24.04	18.86	31.43	6.15	10.24	3.42	5.70	5.02	8.41	3.21	5.34	115.54	192.34	49.6	1787	82.75	2979
		$U_{11} - U_{12}$	2.11	3.52	3.34	5.60	2.10	3.51	8.13	13.57	3.26	5.38	2.11	3.53	2.13	3.53	3.23	5.40	2.10	3.51	75.64	126.28	84.5	3044	140.91	5073
		$U_{12} - U_{13}$	2.13	3.53	3.37	5.66	2.54	4.22	2.11	3.53	3.59	5.96	2.53	4.27	2.12	3.54	3.52	5.82	2.54	4.22	76.10	127.00	385.3	13873	642.25	23121
		$U_{13} - U_{14}$	1.68	2.81	2.55	4.28	2.59	4.34	1.69	2.80	2.83	4.72	2.63	4.34	1.69	2.82	2.56	4.27	3.29	4.12	60.53	100.70	159.9	5757	266.51	9595
		$U_{14} - U_{15}$	1.68	2.81	2.53	4.24	2.59	4.33	1.68	2.81	2.52	4.20	2.57	4.33	1.68	2.81	2.54	4.19	2.59	4.33	60.45	101.03	185.0	6661	308.40	11102
		$U_{15} - U_{16}$	2.06	3.43	3.01	5.02	2.91	4.95	2.06	3.43	4.02	6.71	2.94	4.91	2.04	3.40	3.00	5.03	2.95	4.96	73.53	122.41	621.5	22375	1035.90	37292
		$U_{16} - U_{17}$	2.34	3.90	3.22	5.37	3.50	5.92	2.34	3.90	3.22	5.37	3.56	5.98	2.67	4.42	3.21	5.41	3.98	4.92	84.22	140.43	297.2	10699	495.32	17831
		$U_{17} - U_{18}$	2.43	4.08	3.16	5.24	3.28	4.06	2.46	4.11	3.40	5.69	3.24	4.06	2.45	4.09	3.14	5.22	3.55	4.55	87.53	146.02	206.6	7438	344.36	12397
		$U_{18} - U_{19}$	2.64	4.41	3.15	5.22	3.27	4.09	2.64	4.41	3.15	5.22	3.28	4.08	2.67	4.40	2.99	4.34	3.26	4.21	93.38	146.91	93.1	3353	155.25	5589
		$U_{19} - U_{20}$	5.71	9.52	7.91	13.19	8.78	11.07	5.71	9.50	7.87	13.23	8.78	11.01	5.72	9.42	10.87	18.05	9.53	11.96	205.44	339.11	30.5	1099	50.89	1832
	Structure 2																								
		$U_0 - U_1$	5.54	9.14	5.86	9.72	6.09	10.19	8.15	13.67	7.54	12.55	6.12	10.23	5.54	9.20	5.84	9.79	6.08	10.14	199.28	329.12	102.3	3683	170.50	6138
		$U_1 - U_2$	2.98	4.95	2.96	4.96	3.12	5.24	3.01	5.02	5.37	8.95	4.23	7.01	2.97	4.93	2.96	4.96	3.12	5.24	106.60	177.49	151.4	5450	252.30	9083
		$U_2 - U_3$	2.59	4.31	3.09	5.15	2.75	4.58	4.01	6.65	3.57	5.96	6.67	8.42	2.61	4.36	3.08	5.13	2.75	4.58	93.12	155.21	92.8	3341	154.67	5568
		$U_3 - U_4$	2.09	3.49	2.91	4.86	2.33	3.91	2.24	3.75	2.93	4.90	2.34	3.90	2.25	3.75	2.91	4.82	2.35	3.91	75.39	125.75	668.2	24056	1113.70	40093
		$U_4 - U_5$	2.02	3.36	2.78	4.68	2.31	3.80	2.07	3.46	2.79	4.65	2.29	3.84	2.00	3.33	2.79	4.70	2.31	3.80	71.87	119.94	304.7	10968	507.77	18280
		$U_5 - U_6$	1.96	3.26	2.86	4.82	2.32	3.86	1.96	3.26	2.86	4.82	2.30	3.88	1.97	3.28	3.08	5.09	2.30	3.84	70.64	117.31	777.8	28002	1296.39	46670
		$U_6 - U_7$	1.60	2.65	2.37	3.95	2.11	3.51	1.60	2.65	2.45	4.11	2.11	3.51	1.59	2.63	2.37	3.95	2.12	3.52	57.35	95.26	158.3	5697	263.77	9496
		$U_7 - U_8$	1.61	2.69	2.40	3.99	2.13	3.55	1.61	2.69	2.40	3.99	2.13	3.54	1.62	2.71	2.42	4.01	2.13	3.52	57.95	96.78	139.3	5014	232.11	8356
		$U_8 - U_9$	1.79	2.98	2.67	4.44	2.48	4.16	1.80	2.99	2.98	4.97	2.48	4.13	1.78	3.00	2.67	4.45	2.48	4.12	64.26	107.37	235.4	8474	392.30	14123
		$U_9 - U_{10}$	1.91	3.16	2.66	4.45	3.18	5.28	1.90	3.19	2.66	4.41	3.18	5.26	3.35	5.52	2.70	4.52	5.72	7.13	68.50	113.90	59.5	2141	99.11	3568
		$U_{10} - U_{11}$	2.92	4.85	4.32	7.21	4.43	7.39	2.92	4.85	4.30	7.20	4.40	7.38	2.91	4.85	4.32	7.20	4.80	7.57	104.88	174.49	72.6	2614	121.03	4357
		$U_{11} - U_{12}$	3.22	5.37	4.03	6.74	3.69	6.13	3.22	5.37	3.95	6.58	3.59	5.99	5.73	9.54	6.17	10.32	4.49	7.51	115.87	193.25	46.0	1658	76.75	2763
		$U_{12} - U_{13}$	3.98	6.60	4.26	7.09	3.85	6.46	3.79	6.35	4.76	7.98	4.10	6.78	3.80	6.34	4.64	7.78	8.82	11.14	136.53	228.13	341.3	12286	568.79	20476
		$U_{13} - U_{14}$	2.13	3.49	2.54	4.23	2.04	3.39	3.07	5.14	2.72	4.54	5.68	7.06	2.10	3.53	2.67	4.43	2.05	3.44	73.54	122.22	53.8	1936	89.62	3226
		$U_{14} - U_{15}$	1.94	3.26	2.47	4.08	2.13	3.54	1.94	3.22	2.48	4.14	2.09	3.47	1.95	3.27	4.80	7.95	3.57	6.03	69.74	116.06	61.8	2225	103.00	3708
		$U_{15} - U_{16}$	3.65	6.05	4.65	7.73	4.65	7.73	7.03	11.82	8.08	13.51	6.32	10.57	4.74	7.92	7.83	13.14	4.83	8.04	131.33	217.96	608.0	21887	1013.29	36478
		$U_{16} - U_{17}$	4.14	6.91	6.15	10.24	4.92	8.17	4.31	7.18	5.61	9.35	7.51	12.41	3.98	6.63	6.52	10.87	4.68	7.78	143.13	238.65	86.1	3101	143.55	5168
		$U_{17} - U_{18}$	2.86	4.76	4.63	7.72	3.62	6.03	6.93	11.56	10.58	17.64	8.91	14.84	2.74	4.60	4.48	7.47	3.62	6.04	98.84	165.47	47.7	1718	79.55	2864
		$U_{18} - U_{19}$	3.35	5.60	5.18	8.66	4.26	7.11	3.51	5.83	5.84	9.72	4.67	7.63	3.39	5.59	5.46	9.11	4.26	7.07	120.58	201.07	67.7	2438	112.89	4064
		$U_{19} - U_{20}$	2.82	4.72	4.13	6.88	2.78	4.59	4.01	6.68	4.13	6.87	2.77	4.59	2.82	4.72	4.14	6.84	2.78	4.59	99.82	165.22	147.6	5315	246.06	8858
		$U_{20} - U_{21}$	2.52	4.21	3.93	6.58	2.99	4.99	4.12	6.83	4.02	6.68	2.99	4.99	2.51	4.21	4.12	6.92	2.99	4.99	90.48	151.54	302.3	10882	503.79	18136
		$U_{21} - U_{22}$	1.86	3.10	2.77	4.57	2.90	4.82	1.86	3.10	3.08	5.12	2.90	4.82	1.86	3.10	2.77	4.57	3.76	6.31	66.83	111.54	119.6	4305	199.31	7175
		$U_{22} - U_{23}$	1.86	3.10	2.73	4.57	2.85	4.76	1.86	3.10	2.73	4.57	2.88	4.79	1.86	3.11	2.73	4.56	2.86	4.77	66.91	111.76	119.9	4316	199.81	7193
		$U_{23} - U_{24}$	2.41	4.02	3.49	5.83	3.65	6.08	4.60	7.74	7.07	11.73	3.65	6.09	4.82	7.96	3.47	5.78	5.51	9.18	86.90	144.82	309.6	11147	516.07	18578
		$U_{24} - U_{25}$	2.54	4.23	3.52	5.87	4.63	7.71	2.54	4.23	3.53	5.86	5.51	8.45	3.85	6.42	3.53	5.85	5.98	9.94	91.26	152.22	109.5	3940	182.42	6567
		$U_{25} - U_{26}$	3.56	5.90	5.30	8.85	4.87	8.16	3.56	5.92	5.66	9.38	4.87	8.14	3.81	6.39	6.12	10.26	19.48	32.38	128.06	212.48	67.7	2435	112.75	4059
		$U_{26} - U_{27}$	3.34	5.56	5.20	8.76	4.37	6.95	3.18	5.30	4.57	7.60	4.26	6.74	8.90	14.74	11.01	18.25	6.30	10.59	114.37	190.64	42.1	1516	70.20	2527
		$U_{27} - U_{28}$	4.77	7.94	5.54	9.15	4.53	7.40	4.52	7.54	6.50	10.81	5.62	9.31	4.80	8.08	6.26	10.45	4.50	7.46	161.91	266.53	89.8	3234	149.74	5391
		$U_{28} - U_{29}$	4.06	6.80	4.98	8.31	4.21	7.07	6.11	10.16	5.19	8.73	13.72	17.22	4.03	6.68	8.24	13.75	11.51	14.21	145.19	240.36	413.9	14901	689.84	24834
		$U_{29} - U_{30}$	2.24	3.68	2.58	4.27	2.01	3.31	4.32	7.11	2.55	4.24	1.99	3.35	2.23	3.74	2.59	4.39	1.97	3.36	70.97	119.27	57.8	2079	96.26	3465
		$U_{30} - U_{31}$	2.24	3.72	2.67	4.38	2.32	3.92	2.24	3.73	2.66	4.39	2.31	3.91	2.25	3.76	4.54	7.56	2.36	3.95	80.53	133.77	57.5	2069	95.81	3449
		$U_{31} - U_{32}$	3.60	6.00	4.11	6.87	4.37	7.34	9.56	15.94	5.03	8.28	4.12	6.85	3.79	6.29	5.00	8.35	4.36	7.26	129.67	216.07	496.1	17859	826.79	29764
		$U_{32} - U_{33}$	3.19	5.32	3.85	6.44	3.84	6.38	4.46	7.43	6.39	10.64	5.51	9.17	3.28	5.48	4.21	7.03	3.83	6.46	114.91	191.57	47.8	1720	79.61	2866
		$U_{33} - U_{34}$	3.51	5.85	4.58	7.59	4.01	6.68	3.87	6.48	4.59	7.60	5.59	9.06	3.54	5.86	4.59	7.60	4.00	6.70	126.39	210.72	93.1	3352	155.18	5587
		$U_{34} - U_{35}$	2.51	4.20	3.24	5.40	2.55	4.25	5.34	8.89	3.23	5.39	3.35	5.58	2.52	4.18	3.24	5.40	2.53	4.23	90.40	150.58	65.3	2349	108.76	3915
		$U_{35} - U_{36}$	2.26	3.76	3.02	4.97	2.08	3.47	2.25	3.75	2.99	4.99	2.09	3.48	2.26	3.76	3.15	5.25	2.09	3.47	74.86	124.75	256.9	9249	428.20	15415
		$U_{36} - U_{37}$	1.98	3.30	2.65	4.41	1.94	3.23	1.98	3.30	2.65	4.45	1.92	3.20	2.00	3.30	2.67	4.44	1.94	3.21	69.28	115.14	137.6	4955	229.40	8258
		$U_{37} - U_{38}$	1.98	3.30	2.61	4.36	1.88	3.14	1.98	3.29	2.64	4.40	1.88	3.14	1.98	3.32	2.67	4.41	1.87	3.13	67.48	112.68	173.7	6253	289.51	10422
		$U_{38} - U_{39}$	2.30	3.85	2.87	4.80	2.20	3.67	2.31	3.85	3.48	5.76	2.22	3.70	2.30	3.88	2.85	4.75	2.22	3.69	79.18	132.09	586.0	21096	976.65	35159
		$U_{39} - U_{40}$	2.33	3.87	2.63	4.42	2.35	3.88	2.33	3.90	2.64	4.39	2.33	3.88	2.32	3.90	2.65	4.47	2.33	3.87	83.66	139.20	319.5	11502	532.49	19170
		$U_{40} - U_{41}$	2.51	4.20	3.06	5.14	2.58	4.29	2.51	4.20	3.05	5.09	2.57	4.28	2.51	4.18	3.07	5.12	2.56	4.30	90.23	150.62	423.8	15258	706.37	25429
		$U_{41} - U_{42}$	2.86	4.76	3.19	5.32	3.09	5.15	2.88	4.81	3.19	5.32	3.10	5.13	2.86	4.78	3.85	6.43	3.16	5.05	102.81	171.43	80.5	2897	134.11	4828
		$U_{42} - U_{43}$	3.07	5.13	3.53	5.88	3.68	6.13	3.07	5.13	3.50	5.84	3.85	6.11	4.70	7.81	3.61	6.03	3.58	5.97	110.64	184.52	200.5	7218	334.15	12029
		$U_{43} - U_{44}$	4.83	8.04	6.08	10.16	7.70	12.80	4.83	8.04	6.06	10.05	7.70	12.80	4.84	8.08	8.43	14.05	11.75	14.74	173.94	289.82	22.5	811	37.53	1351
	Structure 3																								
		$U_0 - U_1$	7.21	12.00	7.75	12.89	7.59	12.64	7.93	13.10	8.61	14.28	7.56	12.58	7.22	12.10	7.75	12.89	7.53	12.62	259.51	432.14	134.6	4846	224.35	8077
		$U_1 - U_2$	2.97	4.92	3.14	5.20	3.01	5.01	2.93	4.94	3.61	6.01	2.97	4.95	2.95	4.92	3.14	5.20	3.00	5.04	105.59	176.96	78.8	2837	131.36	4729
		$U_2 - U_3$	2.75	4.59	3.45	5.75	2.88	4.79	2.73	4.55	3.64	6.08	2.87	4.77	2.72	4.53	3.64	6.08	2.88	4.76	97.91	163.10	242.9	8746	404.89	14576
		$U_3 - U_4$	2.59	4.35	3.70	6.19	2.66	4.47	3.05	5.10	3.69	6.19	2.67	4.44	2.70	4.43	3.71	6.12	2.66	4.45	93.36	156.62	458.5	16505	764.10	27508
		$U_4 - U_5$	2.26	3.72	3.45	5.80	2.63	4.43	2.74	4.58	3.37	5.61	2.63	4.45	2.26	3.77	3.72	6.20	2.64	4.46	81.23	134.06	1230.7	44304	2051.09	73839
		$U_5 - U_6$	1.82	3.02	2.59	4.31	2.79	4.65	1.82	3.02	2.95	4.92	2.79	4.65	1.82	3.02	2.60	4.33	3.43	4.29	65.38	108.60	181.3	6526	302.14	10877
		$U_6 - U_7$	1.84	3.06	2.63	4.38	2.76	4.60	1.83	3.06	2.64	4.37	2.75	4.60	1.85	3.09	3.00	5.04	2.75	4.60	66.02	110.03	156.5	5633	260.77	9388
		$U_7 - U_8$	2.17	3.63	3.38	5.68	3.05	3.81	2.16	3.61	3.19	5.35	3.05	3.82	4.55	7.55	3.21	5.29	3.06	3.82	77.88	129.86	552.3	19883	920.53	33139
		$U_8 - U_9$	1.92	3.21	2.88	4.83	2.98	3.71	1.92	3.21	2.89	4.82	2.98	3.71	3.94	6.48	2.86	4.76	6.36	7.90	69.08	115.57	68.1	2453	113.57	4089
		$U_9 - U_{10}$	2.58	4.31	4.13	6.89	4.84	6.08	2.58	4.31	4.17	6.94	4.85	6.07	6.72	11.18	18.16	29.94	21.69	29.85	92.93	155.32	45.0	1620	75.01	2701
		$U_{10} - U_{11}$	4.52	7.58	6.18	10.31	7.29	9.12	4.55	7.55	6.22	10.34	7.29	9.14	7.30	12.23	6.86	10.97	7.76	12.97	162.66	271.88	78.9	2839	131.43	4732
		$U_{11} - U_{12}$	2.33	3.89	2.60	4.37	2.73	4.56	3.29	5.48	4.42	7.44	4.86	6.06	2.31	3.87	2.73	4.55	2.70	4.56	83.29	139.40	25.6	923	42.72	1538
		$U_{12} - U_{13}$	2.27	3.78	2.85	4.76	3.12	3.95	2.26	3.78	2.82	4.76	3.08	3.96	6.37	10.55	4.41	7.37	3.70	5.64	81.52	135.91	70.9	2551	118.10	4252
		$U_{13} - U_{14}$	3.09	5.16	4.24	7.10	4.06	6.78	3.83	6.43	4.68	7.75	4.11	6.85	3.09	5.17	4.64	7.74	4.06	6.81	111.09	185.90	331.4	11931	552.34	19884
		$U_{14} - U_{15}$	3.29	5.51	4.51	7.56	4.21	7.01	8.44	14.03	16.25	27.06	4.21	7.01	3.30	5.49	4.54	7.49	4.23	7.02	118.50	197.63	80.3	2892	133.89	4820
		$U_{15} - U_{16}$	2.91	4.81	3.32	5.58	5.06	6.29	2.89	4.82	4.04	6.72	5.03	6.29	2.90	4.83	3.32	5.58	6.04	7.53	104.01	173.22	59.4	2138	98.98	3563
		$U_{16} - U_{17}$	2.92	4.88	3.41	5.67	5.14	6.39	2.92	4.88	3.42	5.69	6.24	7.89	2.93	4.86	4.11	6.85	5.12	6.40	104.96	174.90	125.1	4503	208.46	7505
		$U_{17} - U_{18}$	2.76	4.58	3.36	5.56	4.26	5.34	2.76	4.58	3.62	6.04	4.26	5.34	2.75	4.58	3.34	5.55	4.26	5.32	99.10	164.71	172.4	6205	287.28	10342
		$U_{18} - U_{19}$	2.67	4.46	3.10	5.16	4.20	5.24	2.67	4.46	3.10	5.14	4.18	5.20	2.66	4.42	3.00	4.99	7.57	9.46	95.77	159.02	110.6	3983	184.39	6638
		$U_{19} - U_{20}$	4.93	8.16	6.05	10.06	8.42	10.45	4.93	8.16	6.04	10.04	8.39	10.49	4.92	8.21	10.04	16.77	11.14	13.95	177.07	293.86	29.0	1043	48.29	1738

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans Gross Tonnage **36** **tons**

As-Built Load Rating Summary: **HS20 Lane**

Controlling As-Inspected Ratings

	Inventory	Operating
Maximum Axial Force	1.31	1.81
Maximum Moment (Start)	1.31	2.24
Maximum Moment (End)	1.31	1.85
	Inventory	Operating
Maximum Shear Force	22.5	37.53

Location	Member	Axial Load Case						Moment (Start)						Moment (End)						Controlling Tonnages		Maximum Shear Force			
		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss				Inventory		Operating	
		Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Tonnage	Operating Tonnage	Rating	Tonnage	Rating	Tonnage
Truss - Lower Chord	Structure 1																								
	L_2 - L_1	21.55	36.09	20.36	33.89	14.89	20.68	27.49	45.57	20.31	33.90	19.86	24.73	27.30	45.49	20.35	33.63	18.32	22.86	535.95	744.58	89.6	3225	149.32	5376
	L_1 - L_2	3.73	6.24	4.67	7.72	3.98	6.63	6.18	10.36	7.36	12.37	3.94	6.57	3.75	6.25	4.67	7.73	3.98	6.63	134.22	224.77	107.7	3876	179.44	6460
	L_2 - L_3	3.36	5.59	4.90	8.09	3.60	6.02	3.39	5.62	4.86	8.10	3.61	6.00	3.38	5.62	5.55	9.29	3.64	6.01	120.90	201.36	620.7	22345	1034.50	37242
	L_3 - L_4	2.74	4.53	3.98	6.68	4.34	7.17	2.74	4.54	4.31	7.17	4.35	7.21	2.72	4.56	4.01	6.68	4.34	7.19	97.82	163.04	158.8	5715	264.60	9525
	L_4 - L_5	2.16	3.59	3.16	5.31	2.38	3.99	2.16	3.60	3.02	5.06	2.38	3.99	6.34	10.58	7.88	13.10	4.14	5.19	77.63	129.38	66.4	2391	110.67	3984
	L_5 - L_6	2.04	3.40	3.21	5.38	2.27	3.74	2.16	3.60	3.21	5.36	2.24	3.72	2.60	4.38	3.29	5.48	2.63	4.39	73.38	122.42	149.1	5369	248.57	8949
	L_6 - L_7	2.58	4.32	3.65	6.15	3.35	5.60	3.24	5.41	4.58	7.67	3.59	5.91	3.22	5.37	4.72	7.87	3.59	5.85	92.94	155.43	253.5	9127	422.53	15211
	L_7 - L_8	1.74	2.89	2.42	4.04	2.26	2.83	3.49	5.81	2.39	3.98	2.26	2.83	1.72	2.91	2.44	4.10	2.26	2.98	62.10	101.89	90.5	3259	150.88	5432
	L_8 - L_9	1.76	2.93	2.50	4.17	2.09	3.44	1.74	2.92	2.56	4.31	2.06	3.46	2.84	4.72	4.50	7.51	2.76	4.61	62.47	104.99	88.4	3183	147.34	5304
	L_9 - L_{10}	2.82	4.75	4.31	7.15	3.92	4.92	4.75	7.96	7.34	12.23	6.72	10.69	4.76	7.93	8.20	13.82	6.60	11.02	101.69	170.95	287.4	10347	479.05	17246
	L_{10} - L_{11}	2.63	4.37	4.15	6.94	4.93	6.18	2.61	4.38	4.22	7.04	6.52	8.46	3.17	5.31	5.23	8.80	5.47	6.82	93.89	157.31	65.8	2370	109.72	3950
	L_{11} - L_{12}	4.29	7.17	4.20	7.01	3.43	5.75	18.61	31.14	27.99	46.64	5.97	9.92	4.33	7.20	4.22	6.99	3.44	5.74	123.61	206.54	93.4	3362	155.67	5604
	L_{12} - L_{13}	3.97	6.62	4.37	7.36	3.24	5.34	3.99	6.62	4.40	7.27	3.21	5.37	3.97	6.61	4.42	7.30	3.24	5.34	115.65	192.21	432.4	15565	720.60	25941
	L_{13} - L_{14}	2.59	4.34	3.41	5.63	3.16	5.28	3.43	5.74	3.44	5.74	3.20	5.33	2.59	4.36	3.41	5.63	3.16	5.33	93.29	156.16	133.7	4815	222.90	8024
	L_{14} - L_{15}	2.79	4.60	3.81	6.34	3.84	6.40	2.79	4.60	3.67	6.09	3.83	6.38	2.79	4.61	3.78	6.34	3.79	6.31	100.57	165.58	226.8	8166	378.03	13609
	L_{15} - L_{16}	4.17	6.95	4.71	7.78	5.33	8.87	4.15	6.90	4.71	7.78	5.36	8.96	4.13	6.85	4.67	7.79	5.31	8.91	148.76	246.68	1116.6	40179	1860.15	66965
	L_{16} - L_{17}	4.32	7.18	4.45	7.41	5.03	8.38	4.32	7.18	4.47	7.48	5.01	8.32	4.37	7.20	4.47	7.48	5.03	8.41	155.57	258.66	232.5	8371	387.55	13952
	L_{17} - L_{18}	6.51	10.94	5.89	9.82	5.63	9.42	8.06	13.40	5.89	9.78	6.21	10.34	6.34	10.51	5.84	9.70	5.22	8.72	188.08	314.04	184.5	6644	307.58	11073
	L_{18} - L_{19}	4.09	6.82	5.17	8.71	3.77	6.25	9.03	14.97	6.00	9.95	6.01	9.25	7.07	11.81	5.96	9.93	6.07	10.23	135.85	225.00	72.0	2591	119.96	4318
	L_{19} - L_{20}	3.20	5.33	13.03	21.81	5.91	9.76	3.21	5.36	12.81	21.36	13.25	16.69	3.21	5.35	12.81	21.25	6.35	10.44	115.07	191.73	83.7	3014	139.55	5024
	Structure 2																								
	L_2 - L_1	15.04	24.89	15.35	25.55	12.06	15.07	14.57	24.30	15.34	25.68	10.92	15.31	14.62	24.34	15.43	25.59	11.84	14.82	393.02	533.45	85.0	3061	141.71	5102
	L_1 - L_2	5.59	9.32	4.80	7.94	8.07	13.39	5.62	9.38	4.75	7.92	6.77	11.27	5.61	9.30	4.80	7.94	6.80	11.29	170.99	285.22	104.7	3769	174.48	6281
	L_2 - L_3	4.56	7.50	4.41	7.35	4.80	8.10	4.52	7.56	6.28	10.38	4.80	8.10	4.51	7.58	4.40	7.31	4.80	8.10	158.26	263.25	185.9	6694	309.90	11156
	L_3 - L_4	3.57	5.94	4.00	6.65	3.69	6.16	5.83	9.73	9.36	15.71	6.29	10.45	3.64	6.06	4.00	6.68	3.69	6.16	128.37	213.91	327.8	11802	546.41	19671
	L_4 - L_5	3.57	5.93	4.16	7.01	3.62	6.04	6.83	11.29	4.20	7.01	3.61	6.08	3.60	5.92	4.18	6.97	3.62	6.04	128.59	213.23	666.6	23997	1110.96	39995
	L_5 - L_6	3.09	5.19	3.92	6.53	3.26	5.43	3.08	5.16	3.88	6.47	3.26	5.43	3.09	5.14	3.90	6.51	3.26	5.46	110.92	185.03	500.1	18002	833.43	30003
	L_6 - L_7	2.79	4.66	3.77	6.29	2.95	4.91	2.78	4.66	3.77	6.29	2.95	4.91	2.79	4.66	4.12	6.93	2.95	4.93	100.12	167.61	633.6	22810	1056.01	38016
	L_7 - L_8	2.24	3.77	3.15	5.22	2.80	4.67	2.24	3.77	3.15	5.24	2.80	4.67	2.26	3.75	3.17	5.31	2.79	4.66	80.72	135.06	202.5	7289	337.44	12148
	L_8 - L_9	2.73	4.50	3.50	5.84	3.44	5.75	2.73	4.50	3.50	5.84	3.44	5.75	3.90	6.43	3.50	5.79	6.25	10.49	98.22	161.91	214.0	7705	356.69	12841
	L_9 - L_{10}	3.26	5.43	4.46	7.42	3.64	6.02	3.26	5.43	4.45	7.41	3.63	6.05	3.50	5.87	4.47	7.45	3.73	6.22	117.29	195.55	127.7	4597	212.80	7661
	L_{10} - L_{11}	2.39	3.99	3.09	5.11	2.22	3.71	2.26	3.76	3.08	5.12	2.19	3.65	3.35	5.60	3.24	5.42	3.31	5.44	78.83	131.50	94.5	3401	157.44	5668
	L_{11} - L_{12}	2.17	3.65	2.92	4.88	2.31	3.83	2.74	4.57	2.94	4.86	2.32	3.81	2.16	3.60	2.91	4.89	2.25	3.75	77.65	129.62	110.7	3984	184.45	6640
	L_{12} - L_{13}	2.33	3.88	3.16	5.26	2.73	4.59	3.77	6.33	4.89	8.17	3.43	5.52	2.33	3.87	3.13	5.22	3.42	5.63	83.83	139.32	264.4	9519	440.68	15864
	L_{13} - L_{14}	1.64	2.74	2.10	3.50	1.92	3.16	1.63	2.76	2.17	3.60	1.88	3.19	1.65	2.75	2.11	3.52	1.88	3.20	58.67	98.62	55.9	2012	93.16	3354
	L_{14} - L_{15}	1.63	2.72	2.02	3.37	1.70	2.85	1.65	2.73	2.02	3.41	1.70	2.82	1.65	2.73	2.11	3.54	1.68	2.82	58.76	97.95	57.3	2064	95.53	3439
	L_{15} - L_{16}	2.07	3.49	2.84	4.69	2.67	4.38	3.81	6.35	2.88	4.84	5.61	7.03	6.72	11.20	9.15	15.24	3.87	6.48	74.35	125.73	207.8	7480	346.28	12466
	L_{16} - L_{17}	1.80	3.00	2.63	4.41	2.83	4.77	1.80	3.00	2.63	4.35	2.82	4.72	3.78	6.34	5.65	9.82	5.14	8.60	64.70	107.85	130.7	4705	217.81	7841
	L_{17} - L_{18}	2.01	3.37	3.19	5.29	3.26	5.45	2.03	3.38	3.27	5.39	5.68	7.65	2.82	4.70	3.22	5.37	4.02	6.69	72.41	121.33	124.8	4491	207.93	7485
	L_{18} - L_{19}	2.57	4.30	3.20	5.38	3.64	6.04	2.59	4.28	3.24	5.40	3.64	6.04	2.61	4.31	3.24	5.36	3.61	6.03	92.63	154.23	102.1	3676	170.18	6127
	L_{19} - L_{20}	3.28	5.52	3.96	6.59	4.37	7.34	3.36	5.59	4.20	6.97	4.84	8.05	3.31	5.51	3.97	6.59	4.39	7.29	118.14	198.29	166.7	6003	277.92	10005
	L_{20} - L_{21}	5.53	9.22	5.70	9.49	4.18	6.98	5.72	9.51	5.71	9.46	4.18	6.96	5.50	9.15	5.68	9.49	4.19	6.98	150.37	251.13	302.9	10906	504.89	18176
	L_{21} - L_{22}	3.11	5.20	3.96	6.58	3.52	5.87	5.39	9.05	6.59	10.92	3.52	5.87	3.10	5.18	3.88	6.46	3.51	5.83	111.53	186.63	106.9	3849	178.19	6415
	L_{22} - L_{23}	3.08	5.15	4.02	6.74	3.95	6.62	3.08	5.17	3.85	6.40	3.97	6.63	3.10	5.16	4.03	6.72	3.95	6.61	110.73	185.28	116.3	4187	193.84	6978
	L_{23} - L_{24}	5.08	8.42	5.32	8.91	6.43	10.71	5.08	8.42	5.32	8.91	6.43	10.71	6.02	9.97	5.32	8.91	8.11	13.58	182.95	303.19	332.7	11979	554.58	19965
	L_{24} - L_{25}	4.83	8.00	4.16	6.96	4.42	7.42	4.53	7.57	4.24	7.05	4.92	8.20	4.90	8.16	4.52	7.58	5.40	9.02	149.91	250.56	133.4	4801	222.27	8002
	L_{25} - L_{26}	4.40	7.29	3.67	6.09	3.96	5.13	4.27	7.12	3.79	6.34	3.78	6.30	4.48	7.41	3.80	6.32	4.95	6.53	110.26	184.73	102.6	3693	170.97	6155
	L_{26} - L_{27}	2.40	4.04	3.75	6.23	2.90	4.78	2.41	4.04	3.76	6.23	3.20	5.35	2.41	4.03	3.74	6.19	2.88	4.80	86.46	144.95	108.7	3912	181.13	6521
	L_{27} - L_{28}	2.20	3.63	2.97	4.91	2.41	4.08	3.19	5.31	5.91	9.74	4.61	7.82	2.17	3.66	2.93	4.89	2.44	4.04	78.22	130.77	128.1	4612	213.53	7687
	L_{28} - L_{29}	2.27	3.79	2.98	4.97	2.90	4.83	4.45	7.43	2.99	5.00	5.78	7.59	2.26	3.74	2.98	4.95	4.78	6.00	81.36	134.59	296.9	10690	494.91	17817
	L_{29} - L_{30}	1.82	3.02	2.16	3.60	2.05	3.40	1.81	3.04	2.18	3.65	2.04	3.47	1.81	3.03	2.17	3.64	2.06	3.45	65.18	108.61	55.5	1997	92.47	3329
	L_{30} - L_{31}	2.20	3.64	2.19	3.65	1.31	2.18	2.19	3.65	2.16	3.60	1.31	2.24	2.18	3.63	2.24	3.74	1.31	2.18	47.04	78.32	57.3	2062	95.46	3436
	L_{31} - L_{32}	2.93	4.84	3.21	5.35	2.24	3.74	5.29	8.76	3.22	5.30	2.23	3.79	7.20	12.02	5.46	9.15	4.26	7.03	80.38	134.81	239.9	8637	399.88	14396
	L_{32} - L_{33}	2.68	4.45	2.88	4.84	1.99	3.34	2.68	4.45	2.89	4.78	1.99	3.36	3.98	6.62	2.87	4.85	2.70	4.38	71.65	120.33	114.4	4118	190.64	6863
	L_{33} - L_{34}	3.36	5.62	2.99	5.03	2.61	4.36	4.15	6.93	3.16	5.24	2.66	4.43	3.22	5.36	3.09	5.16	2.48	4.14	89.41	149.13	127.5	4589	212.45	7648
	L_{34} - L_{35}	4.46	7.46	4.45	7.45	4.75	7.95	4.50	7.49	4.47	7.40	4.75	7.94	4.20	6.96	4.53	7.51	4.51	7.53	151.37	250.55	133.4	4803	222.35	8005
	L_{35} - L_{36}	3.67	6.05	3.96	6.59	4.19	6.93	4.66	7.74	3.97	6.59	6.20	10.24	3.66	6.06	3.96	6.59	4.16	6.94	131.90	217.65	229.5	8262	382.51	13770
	L_{36} - L_{37}	2.89	4.81	3.45	5.76	3.14	5.19	4.40	7.32	3.43	5.71	3.11	5.21	2.90	4.82	3.45	5.76	3.12	5.20	104.03	173.22	94.8	3414	158.04	5689
	L_{37} - L_{38}	3.09	5.20	3.87	6.43	3.36	5.62	3.11	5.18	4.18	6.98	3.38	5.59	3.09	5.17	3.86	6.38	3.37	5.62	111.22	186.07	538.9	19401	898.21	32335
	L_{38} - L_{39}	3.34	5.53	3.84	6.39	3.67	6.15	3.34	5.53	3.80	6.37	3.67	6.15	3.34	5.58	3.82	6.37	3.66	6.11	120.07	199.01	584.6	21047	974.39	35078
	L_{39} - L_{40}	3.69	6.15	4.26	7.14	4.54	7.56	3.69	6.18	4.32	7.13	4.54	7.56	3.70	6.18	9.51	15.84	4.57	7.60	132.85	221.31	706.9	25447	1178.09	42411
	L_{40} - L_{41}	3.86	6.42	4.57	7.60	4.37	7.31	3.86	6.42	4.57	7.56	4.42	7.39	5.88	9.83	8.51	14.33	5.10	8.50	138.85	230.96	259.4	9337	432.27	15562
	L_{41} - L_{42}	5.30	8.73	5.27	8.81	5.77	9.61	5.25	8.73	5.24	8.80	5.85	9.78	5.24	8.80	6.57	11.10	5.84	9.75	188.52	314.45	159.4	5739	265.71	9565
	L_{42} - L_{43}	7.14	11.91	6.05	10.08	6.21	10.39	7.50	12.51	6.06	10.18	6.67	11.23	7.45	12.39	6.53	10.80	7.02	11.69	217.91	362.87	44.8	1613	74.66	2688
	L_{43} - L_{44}	6.88	11.42	21.64	36.00	19.38	25.15	6.83	11.48	22.33	37.27	14.34	18.15	6.86	11.47	22.27	37.19	25.13	31.12	245.71	411.27	85.2	3065	141.92	5109
	Structure 3																								
	L_2 - L_1	5.77	9.61	22.30	36.98	4.66	5.82	5.76	9.59	20.09	33.63	4.65	5.87	5.73	9.60	20.15	33.55	4.64	5.85	166.97	209.52	85.0	3059	141.63	5099
	L_1 - L_2	4.09	6.87	4.80	7.99	3.99	6.55	11.93	20.06	4.86	8.01	13.12	16.38	12.03	20.01	4.80	7.99	13.20	16.36	143.52	235.73	89.6	3227	149.42	5379
	L_2 - L_3	5.90	9.80	5.10	8.51	6.06	10.07	5.89	9.81	6.96	11.60	5.36	8.91	7.17	12.04	5.10	8.51	6.89	11.50	183.44	306.34	223.4	8042	372.32	13404
	L_3 - L_4	4.83	8.12	4.56	7.59	4.33	7.26	4.79	8.00	5.29	8.84	4.37	7.23	4.86	8.10	4.59	7.65	4.33	7.22	155.74	259.83	316.6	11397	527.66	18996
	L_4 - L_5	4.68	7.81	5.03	8.47	4.22	7.01	5.25	8.68	5.03	8.44	4.23	7.02	4.67	7.80	5.06	8.41	4.26	7.08	151.93	252.26	1479.4	53257	2465.59	88761
	L_5 - L_6	2.95	4.89	3.82	6.45	3.80	6.28	2.95	4.93	3.87	6.43	3.79	6.34	2.96	4.94	3.78	6.29	3.77	6.28	106.26	176.18	208.8	7516	347.98	12527
	L_6 - L_7	2.58	4.25	3.72	6.22	3.77	6.30	2.58	4.26	3.54	5.86	3.78	6.31	4.48	7.42	3.74	6.16	5.75	7.16	92.92	153.12	138.0	4967	229.98	8279
	L_7 - L_8	3.31	5.52	4.12	6.86	5.27	8.79	3.31	5.52	4.12	6.86	5.24	8.85	3.33	5.55	4.14	6.88	5.27	8.75	119.03	198.81	538.6	19390	897.67	32316
	L_8 - L_9	3.35	5.62	4.23	7.10	5.39	9.02	3.38	5.63	4.23	7.05	5.37	9.01	10.98	18.13	11.62	19.54	5.96	9.90	120.67	202.43	81.8	2945	136.35	4908
	L_9 - L_{10}	3.45	5.73	4.46	7.48	4.45	7.43	3.76	6.27	4.93	8.23	4.45	7.40	3.45	5.75	4.46	7.48	4.45	5.77	124.28	206.36	62.0	2232	103.31	3719
	L_{10} - L_{11}	3.06	5.12	4.47	7.47	4.83	6.05	5.24	8.77	7.51	12.51	7.32	12.20	5.26	8.75	8.44	13.92	7.40	11.88	109.99	184.21	230.0	8280	383.34	13800
	L_{11} - L_{12}	1.89	3.14	2.63	4.38	2.61	3.27	2.76	4.58	4.21	7.05	2.63	4.38	1.88	3.15	2.62	4.33	2.52	3.29	67.80	113.13	83.2	2995	138.63	4991
	L_{12} - L_{13}	1.92	3.20	2.40	4.00	1.94	2.42	1.91	3.20	2.43	4.01	2.46	3.22	1.90	3.18	2.43	4.04	2.80	3.49	68.38	86.94	93.2	3356	155.36	5593
	L_{13} - L_{14}	2.99	4.32	3.63	6.03	4.00	4.95	3.12	5.23	4.66	7.82	4.29	5.36	3.12	5.19	5.27	8.78	4.92	5.59	93.15	155.56	337.0	12133	561.70	20221
	L_{14} - L_{15}	2.10	3.50	3.28	5.48	2.97	4.96	2.37	3.93	3.22	5.39	2.97	4.95	2.08	3.50	3.28	5.47	2.97	4.97	74.88	125.06	144.2	5190	240.28	8650
	L_{15} - L_{16}	1.89	3.15	3.19	5.33	3.58	5.94	5.03	8.38	8.44	13.97	3.58	5.94	1.88	3.14	2.99	5.02	3.54	5.92	67.81	113.10	74.5	2681	124.11	4468
	L_{16} - L_{17}	3.07	5.14	4.22	7.02	5.00	6.22	3.06	5.11	4.06	6.77	4.75	6.30	3.07	5.12	4.22	7.03	4.75	6.33	110.24	184.04	222.9	8024	371.50	13374
	L_{17} - L_{18}	3.53	5.84	4.24	7.02	5.55	6.91	3.50	5.87	4.24	7.02	5.49	7.21	3.52	5.82	4.23	7.08	5.46	7.20	125.86	209.68	431.7	15543	719.56	25904
	L_{18} - L_{19}	3.79	6.31	4.44	7.37	5.78	7.22	3.80	6.33	4.44	7.43	5.79	7.25	3.80	6.35	4.45	7.42	8.43	14.05	136.27	227.20	87.8	3159	146.26	5265
	L_{19} - L_{20}	16.87	28.19	35.41	58.74	31.67	49.04	14.45	23.88	26.56	44.25	35.69	49.80	14.35	23.96	26.42	43.95	33.32	55.36	516.49	859.85	102.9	3705	171.53	6175

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans Gross Tonnage **36** **tons**

As-Built Load Rating Summary: **HS20 Lane**

Controlling As-Inspected Ratings

	Inventory	Operating
Maximum Axial Force	1.31	1.81
Maximum Moment (Start)	1.31	2.24
Maximum Moment (End)	1.31	1.85
	Inventory	**Operating**
Maximum Shear Force	22.5	37.53

Location	Member	Axial Load Case						Moment (Start)						Moment (End)						Controlling Tonnages		Maximum Shear Force			
		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss				Inventory		Operating	
		Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Tonnage	Operating Tonnage	Rating	Tonnage	Rating	Tonnage
Truss - Verticals	Structure 1	U_0 - L_0	1.62	2.71	2.46	4.09	1.54	2.57	1.63	2.68	2.35	3.88	1.54	2.57	1.63	2.71	2.33	3.90	1.54	2.57	55.42	92.62	77.0	2772	128.35	4621
		U_1 - L_1	3.12	5.22	4.35	7.22	3.18	5.30	3.13	5.22	4.37	7.25	3.18	5.27	3.12	5.20	4.35	7.22	3.18	5.28	112.27	187.17	80.3	2889	133.75	4815
		U_2 - L_2	4.64	7.74	5.83	9.66	2.39	3.99	4.66	7.76	5.84	9.67	2.40	3.97	4.62	7.70	5.84	9.67	2.40	3.97	86.09	143.09	102.1	3675	170.14	6125
		U_3 - L_3	7.36	12.25	8.84	14.76	5.12	8.46	7.36	12.27	7.98	13.21	5.11	8.49	7.36	12.27	7.98	13.21	4.59	7.22	165.19	260.07	137.5	4949	229.11	8248
		U_4 - L_4	3.02	5.04	2.90	4.87	3.74	6.23	3.02	5.05	2.92	4.84	6.77	10.50	3.01	5.04	2.92	4.84	8.82	11.09	104.25	174.21	127.4	4587	212.34	7644
		U_5 - L_5	1.95	3.29	2.31	3.85	2.66	4.44	1.95	3.25	2.32	3.87	2.69	4.47	1.95	3.26	2.32	3.87	2.65	4.49	70.23	117.15	81.2	2922	135.30	4871
		U_6 - L_6	1.64	2.71	1.98	3.30	2.39	4.01	1.63	2.72	2.74	4.59	2.51	3.14	1.76	2.94	1.99	3.33	2.40	4.02	58.66	97.45	88.3	3179	147.19	5299
		U_7 - L_7	1.37	2.27	1.83	3.06	1.54	2.01	1.36	2.27	1.82	3.06	2.13	2.72	1.36	2.28	1.83	3.06	1.55	2.01	48.90	72.26	95.9	3453	159.84	5754
		U_8 - L_8	2.38	3.98	2.64	4.35	3.32	4.23	3.71	6.18	4.34	7.26	3.93	6.52	3.66	6.10	4.34	7.26	4.34	6.65	85.84	143.13	203.0	7307	338.28	12178
		U_9 - L_9	2.00	3.34	2.54	4.23	2.06	3.45	1.98	3.31	2.55	4.31	2.06	3.45	1.99	3.33	2.58	4.30	2.08	3.51	71.36	119.21	85.7	3084	142.76	5139
		U_{10} - L_{10}	2.41	4.03	3.74	6.22	3.04	5.11	2.41	4.02	3.73	6.21	3.05	5.06	2.59	4.32	4.26	7.08	3.15	5.17	86.71	144.67	154.1	5548	256.83	9246
		U_{11} - L_{11}	2.38	3.97	3.28	5.44	2.90	4.86	2.38	3.97	3.28	5.51	2.93	4.90	2.37	3.95	3.29	5.45	2.92	4.90	85.47	142.18	80.1	2884	133.51	4806
		U_{12} - L_{12}	2.17	3.64	2.99	5.00	1.83	3.08	2.19	3.65	3.00	4.96	1.82	3.05	2.19	3.64	3.00	4.96	1.83	3.05	65.61	109.77	87.3	3142	145.46	5236
		U_{13} - L_{13}	1.73	2.90	2.30	3.82	3.18	3.99	1.75	2.92	2.29	3.81	3.16	4.02	1.75	2.92	2.29	3.81	3.34	4.87	62.46	104.56	88.4	3183	147.38	5306
		U_{14} - L_{14}	3.47	5.79	3.48	5.82	3.46	5.77	3.46	5.80	3.29	5.48	5.40	8.24	3.48	5.78	3.29	5.48	7.14	9.80	118.43	197.25	278.7	10033	464.48	16721
		U_{15} - L_{15}	4.30	7.23	4.67	7.79	5.40	9.05	4.30	7.17	4.69	7.76	5.39	8.98	4.30	7.17	4.69	7.76	5.39	8.98	154.75	257.98	146.4	5271	244.01	8784
		U_{16} - L_{16}	2.26	3.75	2.85	4.78	4.28	7.09	2.25	3.75	3.86	6.45	4.24	7.10	2.26	3.77	3.86	6.45	4.24	7.10	80.91	134.96	135.2	4867	225.31	8111
		U_{17} - L_{17}	1.82	3.05	2.71	4.52	2.66	4.44	1.84	3.07	2.72	4.56	2.67	4.45	1.82	3.05	2.72	4.56	2.67	4.45	65.55	109.69	137.9	4965	229.84	8274
		U_{18} - L_{18}	2.01	3.36	3.22	5.31	2.61	3.23	2.01	3.36	3.21	5.36	3.37	4.29	2.01	3.34	3.21	5.36	2.61	3.23	72.18	116.26	102.6	3694	171.03	6157
		U_{19} - L_{19}	2.29	3.83	3.63	6.05	3.04	3.80	2.29	3.82	3.63	6.06	3.91	4.97	2.31	3.85	3.66	6.03	3.05	3.82	82.50	136.69	132.6	4775	221.05	7958
		U_{20} - L_{20}	1.48	2.47	2.72	4.53	1.52	1.90	1.48	2.49	2.72	4.55	2.04	2.60	1.49	2.48	2.70	4.51	1.52	1.90	53.31	68.38	295.2	10626	491.97	17711
	Structure 2	U_0 - L_0	2.26	3.77	2.45	4.05	1.62	2.69	2.26	3.77	2.44	4.05	1.61	2.69	2.27	3.78	2.44	4.05	1.62	2.69	58.09	96.85	214.6	7726	357.70	12877
		U_1 - L_1	2.85	4.77	3.30	5.52	2.71	4.57	2.85	4.82	3.28	5.51	2.73	4.57	2.86	4.78	3.28	5.51	2.71	4.57	97.39	164.41	176.0	6334	293.25	10557
		U_2 - L_2	2.50	4.15	3.39	5.68	2.47	4.15	2.51	4.17	3.43	5.64	2.50	4.14	2.51	4.13	3.43	5.64	2.50	4.14	89.04	148.66	114.6	4126	191.00	6876
		U_3 - L_3	2.17	3.64	3.16	5.27	2.08	3.51	2.16	3.64	3.15	5.23	2.07	3.47	2.17	3.60	3.15	5.23	2.07	3.47	74.62	124.80	175.6	6323	292.74	10538
		U_4 - L_4	2.31	3.82	3.61	6.02	2.79	4.67	2.29	3.85	3.61	6.01	2.80	4.67	2.32	3.82	3.61	6.01	2.79	4.67	82.48	137.37	128.5	4627	214.20	7711
		U_5 - L_5	3.22	5.38	4.94	8.24	4.30	7.17	3.23	5.38	4.96	8.26	4.29	7.16	3.21	5.35	4.96	8.26	4.29	7.18	115.50	192.52	161.2	5802	268.59	9669
		U_6 - L_6	6.76	11.25	8.02	13.38	4.98	8.29	6.67	11.17	8.95	14.93	4.97	8.30	6.67	11.17	8.97	14.92	4.97	8.30	178.89	298.28	192.1	6916	320.17	11526
		U_7 - L_7	3.28	5.48	3.35	5.57	2.36	3.94	9.25	15.27	12.71	21.21	7.08	11.02	9.20	15.31	12.68	21.22	8.88	11.13	85.09	141.90	361.0	12996	601.68	21660
		U_8 - L_8	2.72	4.54	3.38	5.64	2.77	4.64	2.72	4.56	3.38	5.63	2.78	4.65	2.72	4.53	3.38	5.63	2.77	4.64	97.82	163.09	95.8	3447	159.59	5745
		U_9 - L_9	2.80	4.71	3.28	5.49	2.19	3.64	2.82	4.71	4.38	7.26	3.26	5.45	2.81	4.71	3.28	5.45	3.27	5.44	78.89	130.98	100.8	3628	167.94	6046
		U_{10} - L_{10}	2.79	4.66	3.80	6.27	2.89	4.81	2.81	4.64	3.78	6.30	2.88	4.83	2.80	4.67	3.78	6.30	2.88	4.83	100.44	167.05	132.3	4763	220.51	7938
		U_{11} - L_{11}	2.31	3.84	2.67	4.46	2.40	4.00	2.40	4.05	2.69	4.45	2.50	4.16	2.43	4.03	2.69	4.45	2.40	4.00	82.99	138.28	158.0	5686	263.25	9477
		U_{12} - L_{12}	2.36	3.93	2.79	4.64	2.37	3.92	2.44	4.10	2.78	4.68	2.37	3.92	2.47	4.08	2.79	4.69	2.37	3.92	84.94	141.17	203.6	7329	339.32	12216
		U_{13} - L_{13}	2.06	3.46	1.94	3.21	2.44	4.10	1.85	3.08	2.55	4.25	2.60	4.32	1.86	3.11	2.53	4.21	2.58	4.33	66.69	111.04	205.7	7404	342.76	12340
		U_{14} - L_{14}	2.37	3.95	2.56	4.28	2.92	4.90	3.23	5.37	4.76	7.87	4.76	7.96	3.23	5.40	4.76	7.87	4.76	7.96	85.33	142.21	299.2	10772	498.71	17954
		U_{15} - L_{15}	3.36	5.61	3.43	5.71	3.00	4.95	3.36	5.61	3.40	5.66	2.99	4.97	3.37	5.58	3.40	5.66	2.99	4.97	107.48	178.12	165.3	5950	275.47	9917
		U_{16} - L_{16}	2.39	4.00	2.90	4.84	1.81	3.00	2.41	4.01	2.89	4.82	2.75	4.55	2.39	3.98	2.90	4.84	2.72	4.58	65.08	107.90	172.4	6208	287.41	10347
		U_{17} - L_{17}	2.13	3.55	2.48	4.14	2.71	4.52	2.14	3.56	2.48	4.15	2.68	4.47	2.13	3.57	2.50	4.16	2.68	4.47	76.65	127.79	102.0	3671	169.97	6119
		U_{18} - L_{18}	1.93	3.19	2.36	3.93	2.66	4.37	1.92	3.21	2.36	3.92	2.62	4.37	1.92	3.21	2.36	3.92	2.62	4.37	69.06	114.83	92.9	3346	154.91	5577
		U_{19} - L_{19}	2.37	3.94	3.45	5.75	2.57	4.29	2.35	3.91	3.47	5.78	2.58	4.28	2.34	3.91	3.46	5.76	2.57	4.29	84.39	140.69	138.4	4984	230.75	8307
		U_{20} - L_{20}	2.42	4.07	3.35	5.61	1.76	2.96	2.42	4.06	3.35	5.58	3.50	5.79	2.44	4.02	3.35	5.58	3.50	5.79	63.48	106.42	139.1	5009	231.92	8349
		U_{21} - L_{21}	2.74	4.58	3.51	5.88	4.79	7.96	2.75	4.59	3.50	5.88	4.81	7.96	2.75	4.57	3.50	5.88	4.78	8.01	98.74	164.57	126.0	4537	210.06	7562
		U_{22} - L_{22}	3.45	5.76	3.68	6.15	3.53	5.89	10.41	17.38	13.00	21.62	6.63	11.05	10.41	17.38	13.00	21.62	6.67	11.07	124.33	207.36	502.7	18099	837.90	30164
		U_{23} - L_{23}	3.41	5.72	3.76	6.24	3.76	6.25	3.40	5.66	3.77	6.23	3.79	6.30	3.39	5.71	3.77	6.23	3.76	6.25	122.19	203.85	141.6	5098	236.03	8497
		U_{24} - L_{24}	2.66	3.44	2.54	4.22	1.56	2.61	2.06	3.41	3.55	5.95	1.56	2.60	2.06	3.44	3.55	5.95	1.56	2.60	56.14	93.66	135.9	4892	226.50	8154
		U_{25} - L_{25}	2.25	3.75	3.07	5.10	2.15	3.59	2.24	3.73	3.05	5.13	2.15	3.59	2.24	3.74	3.05	5.13	2.15	3.59	77.56	129.34	115.3	4153	192.25	6921
		U_{26} - L_{26}	2.00	3.33	2.35	3.92	2.55	4.28	2.42	4.03	2.35	3.89	2.55	4.28	2.00	3.35	2.35	3.89	2.55	4.28	72.11	120.05	85.8	3088	142.98	5147
		U_{27} - L_{27}	2.17	3.61	2.43	4.05	2.57	4.31	2.17	3.64	2.43	4.06	2.94	4.89	2.18	3.62	2.43	4.06	2.58	4.26	78.03	130.03	91.6	3299	152.73	5498
		U_{28} - L_{28}	2.13	3.54	2.19	3.67	2.49	4.15	2.12	3.52	2.77	4.62	2.66	4.41	2.12	3.54	2.21	3.67	2.98	4.87	76.47	126.59	138.4	4982	230.66	8304
		U_{29} - L_{29}	2.83	4.70	2.90	4.84	3.53	5.92	2.81	4.69	2.92	4.82	3.53	5.92	2.81	4.69	2.92	4.85	3.53	5.92	101.09	168.68	136.0	4895	226.62	8158
		U_{30} - L_{30}	2.57	4.28	2.61	4.37	2.78	4.59	5.00	8.35	4.18	6.99	4.04	6.76	5.01	8.34	4.17	6.99	4.40	6.76	92.36	153.92	348.5	12544	580.76	20907
		U_{31} - L_{31}	2.94	4.89	2.85	4.75	2.32	3.90	2.95	4.89	2.82	4.70	2.29	3.88	2.91	4.86	2.85	4.75	1.65	2.75	59.42	99.03	234.0	8423	389.96	14039
		U_{32} - L_{32}	2.60	4.30	3.05	5.09	2.77	4.62	2.60	4.33	3.04	5.06	2.76	4.66	2.59	4.31	3.05	5.08	2.74	4.57	93.13	154.78	247.7	8917	412.84	14862
		U_{33} - L_{33}	2.55	4.23	2.91	4.84	2.95	4.88	2.53	4.23	2.72	4.56	2.91	4.90	2.56	4.24	2.91	4.84	2.95	4.85	91.18	152.18	189.8	6831	316.25	11385
		U_{34} - L_{34}	3.39	5.66	4.69	7.82	3.31	5.51	3.41	5.65	4.64	7.73	3.28	5.46	3.41	5.66	4.81	8.02	3.31	5.52	118.25	196.70	155.7	5606	259.53	9343
		U_{35} - L_{35}	3.13	5.23	3.54	5.90	3.59	5.94	3.13	5.23	4.45	7.42	3.56	5.95	3.12	5.23	4.45	7.42	3.59	5.95	112.39	188.17	105.5	3799	175.87	6331
		U_{36} - L_{36}	2.60	4.32	3.48	5.74	3.32	5.54	2.57	4.29	3.47	5.78	3.30	5.50	2.59	4.33	3.47	5.78	3.32	5.50	92.55	154.35	90.0	3242	150.07	5403
		U_{37} - L_{37}	3.25	5.41	3.40	5.66	2.20	3.68	8.83	14.84	3.30	5.53	7.92	9.94	8.85	14.80	3.15	5.23	5.67	8.80	79.35	132.60	308.3	11100	513.89	18500
		U_{38} - L_{38}	8.41	13.99	7.03	11.72	5.07	8.49	8.38	13.93	7.03	11.78	5.07	8.49	8.38	13.93	7.03	11.78	5.07	8.49	182.67	305.53	280.4	10094	467.32	16823
		U_{39} - L_{39}	2.99	4.97	3.45	5.80	3.96	6.60	2.99	4.99	4.59	7.68	3.94	6.59	2.98	4.98	4.59	7.68	3.94	6.59	107.23	178.81	178.3	6420	297.20	10699
		U_{40} - L_{40}	2.41	4.01	3.09	5.13	2.67	4.48	2.42	4.03	3.09	5.17	2.67	4.48	2.41	4.02	3.09	5.17	2.67	4.48	86.65	144.51	116.1	4179	193.48	6965
		U_{41} - L_{41}	2.24	3.71	2.94	4.91	2.19	3.67	2.22	3.70	2.94	4.90	2.19	3.67	2.22	3.70	2.94	4.90	2.19	3.67	78.97	132.05	145.1	5223	241.79	8704
		U_{42} - L_{42}	2.42	3.99	3.30	5.53	2.85	4.74	2.40	4.00	3.32	5.53	2.85	4.74	2.41	4.01	3.32	5.53	2.85	4.74	86.34	143.66	95.5	3438	159.18	5731
		U_{43} - L_{43}	2.67	4.44	3.58	5.91	3.40	5.70	2.64	4.44	3.54	5.89	3.40	5.70	2.65	4.42	3.54	5.89	3.40	5.70	94.87	159.14	123.7	4453	206.14	7421
		U_{44} - L_{44}	1.98	3.31	2.63	4.38	2.87	4.82	1.99	3.32	2.61	4.38	2.68	4.48	2.00	3.31	2.64	4.38	2.87	4.82	71.45	119.14	265.9	9571	443.12	15952
	Structure 3	U_0 - L_0	2.61	4.35	2.72	4.52	1.46	2.44	2.61	4.35	2.70	4.53	1.46	2.40	2.58	4.36	2.71	4.52	1.44	2.40	51.83	86.44	232.0	8352	386.67	13920
		U_1 - L_1	3.10	5.21	3.65	6.07	2.76	4.57	3.13	5.17	3.67	6.10	2.76	4.61	3.13	5.19	3.67	6.10	2.76	4.61	99.19	164.64	197.0	7092	328.32	11820
		U_2 - L_2	2.63	4.33	3.80	6.34	2.46	4.13	2.61	4.32	3.80	6.31	2.47	4.10	2.63	4.36	3.80	6.31	2.46	4.13	88.47	147.63	124.1	4469	206.89	7448
		U_3 - L_3	2.23	3.69	3.35	5.55	1.92	3.24	2.22	3.71	3.32	5.54	1.94	3.23	2.24	3.70	3.32	5.55	1.94	3.23	69.11	116.42	174.9	6295	291.45	10492
		U_4 - L_4	2.69	4.47	3.91	6.50	1.94	3.22	2.69	4.48	3.93	6.53	1.94	3.23	2.67	4.44	3.93	6.53	1.94	3.23	69.71	115.93	145.5	5238	242.49	8730
		U_5 - L_5	3.53	5.87	4.64	7.68	9.06	11.29	3.53	5.86	4.64	7.68	7.72	9.69	3.51	5.85	4.64	7.68	5.63	8.64	126.20	210.44	128.2	4616	213.71	7694
		U_6 - L_6	3.42	5.71	3.55	5.88	3.58	5.96	2.60	4.31	3.53	5.86	5.98	9.35	2.58	4.33	3.53	5.86	9.22	11.46	92.98	155.10	391.7	14100	652.80	23501
		U_7 - L_7	2.13	3.57	2.37	3.95	2.77	4.63	2.12	3.56	2.39	3.98	2.76	4.61	2.14	3.54	2.39	3.98	2.76	4.61	76.30	127.33	92.8	3341	154.69	5569
		U_8 - L_8	2.21	3.68	2.47	4.15	3.02	5.02	2.21	3.68	3.04	5.08	3.37	5.62	2.21	3.69	3.04	5.08	3.02	5.02	79.46	132.60	82.3	2962	137.11	4936
		U_9 - L_9	2.41	4.02	3.09	5.09	3.13	5.23	2.42	4.03	3.07	5.10	3.16	5.26	2.42	4.03	3.07	5.10	3.16	5.26	86.88	144.75	68.1	2451	113.46	4085
		U_{10} - L_{10}	2.68	4.45	3.49	5.80	2.62	4.39	2.68	4.44	3.49	5.78	2.76	4.48	2.80	4.67	3.49	5.78	2.98	4.93	94.26	125.41	121.8	4386	203.04	7309
		U_{11} - L_{11}	1.96	3.24	2.33	3.88	1.43	1.81	1.95	3.23	2.33	3.87	2.10	2.63	1.96	3.26	2.34	3.91	1.43	1.85	51.39	65.25	70.4	2534	117.32	4223
		U_{12} - L_{12}	2.49	4.15	2.39	3.95	3.18	4.07	3.47	5.81	4.54	7.53	4.37	7.12	3.49	5.82	4.54	7.53	4.89	7.45	85.97	142.28	207.5	7471	345.90	12452
		U_{13} - L_{13}	2.30	3.87	2.26	3.77	1.95	3.23	2.30	3.87	2.26	3.75	1.95	3.25	2.31	3.85	2.26	3.75	1.94	3.28	69.69	116.20	116.2	4182	193.62	6970
		U_{14} - L_{14}	2.46	4.13	2.89	4.84	1.66	2.78	2.46	4.09	2.89	4.83	1.66	2.77	2.87	4.81	2.89	4.84	2.06	2.89	59.81	99.76	105.9	3811	176.44	6352
		U_{15} - L_{15}	2.22	3.68	2.43	4.07	3.66	4.59	2.23	3.71	2.44	4.06	3.41	4.38	2.23	3.70	2.43	4.08	3.84	5.15	79.96	132.56	85.7	3086	142.86	5143
		U_{16} - L_{16}	3.06	5.10	2.96	4.94	3.35	5.59	3.08	5.11	2.93	4.88	7.61	10.94	3.06	5.12	2.93	4.90	6.87	10.55	105.60	175.76	118.1	4251	196.81	7085
		U_{17} - L_{17}	7.87	13.20	8.67	14.47	6.40	10.69	7.88	13.12	7.89	13.15	6.87	11.43	7.88	13.11	7.89	13.15	6.39	10.68	230.13	384.60	181.0	6517	301.71	10861
		U_{18} - L_{18}	3.44	5.76	3.47	5.78	7.21	12.02	3.44	5.74	5.75	9.55	7.21	12.05	3.45	5.75	5.75	9.55	7.21	12.05	123.86	206.78	99.9	3598	166.57	5996
		U_{19} - L_{19}	2.78	4.60	3.44	5.76	4.46	5.57	2.75	4.58	3.46	5.72	5.41	7.07	2.74	4.58	3.46	5.72	4.48	5.82	98.76	164.91	54.9	1978	91.55	3296
		U_{20} - L_{20}	1.59	2.67	2.23	3.73	1.95	2.46	6.16	10.31	2.24	3.74	3.00	3.85	1.60	2.66	2.24	3.74	1.99	2.47	57.31	88.71	116.8	4198	194.34	6996

Columbia Parkway (HAM-471-0025)

AASHTO Manual for Condition Evaluation of Bridges (MCEB), Second Edition

Load Rating Analysis - Truss Spans Gross Tonnage **36** **tons**

As-Built Load Rating Summary: **HS20 Lane**

Controlling As-Inspected Ratings

	Inventory	Operating
Maximum Axial Force	1.31	1.81
Maximum Moment (Start)	1.31	2.24
Maximum Moment (End)	1.31	1.85
	Inventory	**Operating**
Maximum Shear Force	22.5	37.53

Location	Member	Axial Load Case						Moment (Start)						Moment (End)						Controlling Tonnages		Maximum Shear Force			
		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss		North Truss		Center Truss		South Truss				Inventory		Operating	
		Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Rating	Operating Rating	Inventory Tonnage	Operating Tonnage	Rating	Tonnage	Rating	Tonnage
Truss - Diagonals	Structure 1	U_0 - L_1	3.55	5.88	5.02	8.36	3.72	6.16	3.56	5.94	4.79	7.98	13.08	16.28	3.56	5.94	4.82	8.03	3.70	6.20	127.64	211.74	162.7	5856	271.12	9760
		U_1 - L_2	3.86	6.37	5.09	8.48	3.44	5.75	3.85	6.43	5.08	8.49	3.43	5.77	3.85	6.38	5.12	8.48	6.02	7.98	123.50	206.97	715.6	25761	1192.65	42935
		U_2 - L_3	5.70	9.50	6.71	11.23	3.27	5.48	5.70	9.48	6.78	11.23	3.38	5.65	6.44	10.76	6.77	11.23	3.27	5.45	117.71	196.03	781.9	28150	1303.23	46915
		U_3 - L_4	4.14	6.91	5.11	8.50	2.91	4.89	4.20	7.02	5.71	9.53	4.45	7.41	4.20	7.00	6.38	10.67	3.71	6.14	104.88	175.87	1832.6	65973	3054.29	109954
		U_3 - L_4	2.21	3.71	2.76	4.60	3.96	6.61	2.51	4.16	3.14	5.20	5.26	8.38	2.50	4.18	5.02	8.37	3.97	6.45	79.66	133.54	630.3	22689	1050.42	37815
		U_4 - L_5	2.05	3.42	2.87	4.76	4.20	7.03	2.27	3.77	3.84	6.41	5.76	9.02	2.05	3.43	2.88	4.80	4.32	7.22	73.66	123.20	219.1	7889	365.23	13148
		U_4 - L_6	2.11	3.52	2.55	4.32	3.88	6.47	2.09	3.44	2.58	4.31	3.90	6.48	2.17	3.63	2.56	4.26	4.87	5.92	75.08	123.81	178.3	6419	297.20	10699
		U_5 - L_7	2.27	3.76	2.74	4.60	4.62	5.82	2.08	3.48	2.92	4.84	5.96	7.74	2.38	3.94	2.74	4.60	4.63	5.79	74.95	125.43	292.9	10545	488.20	17575
		U_6 - L_8	3.13	5.28	3.95	6.63	3.41	5.63	3.61	6.00	4.04	6.66	3.38	5.61	3.13	5.26	3.86	6.44	3.65	6.09	112.66	189.28	418.9	15080	698.15	25133
		U_6 - L_{10}	3.06	5.12	4.17	6.92	3.07	5.17	3.41	5.69	4.46	7.37	3.09	5.16	3.08	5.12	4.18	6.90	3.37	5.61	110.32	184.36	241.5	8693	402.45	14488
		U_{10} - L_{11}	2.77	4.64	4.21	6.96	3.35	5.52	3.14	5.30	5.25	8.75	3.54	5.42	2.81	4.68	4.20	7.02	3.35	5.56	99.89	166.88	255.7	9206	426.19	15343
		U_{11} - L_{12}	2.63	4.32	3.72	6.27	2.73	4.55	2.85	4.74	4.11	6.88	3.00	4.53	2.62	4.38	3.75	6.22	2.71	4.54	94.38	155.61	299.3	10773	498.76	17955
		U_{12} - L_{13}	2.20	3.68	2.84	4.74	4.94	6.16	2.20	3.68	2.84	4.74	2.56	3.89	2.23	3.71	2.83	4.71	4.91	6.19	79.35	132.53	238.4	8581	397.28	14302
		U_{13} - L_{14}	2.18	3.65	2.58	4.29	4.11	6.87	2.20	3.67	2.58	4.29	4.10	6.82	2.19	3.63	2.45	4.08	7.27	9.12	78.64	130.75	564.2	20310	940.30	33851
		U_{13} - L_{14}	5.60	9.35	7.58	12.70	9.04	15.14	5.60	9.37	6.94	11.58	9.05	15.16	12.62	21.03	11.19	18.60	35.95	44.87	201.45	336.73	1781.1	64120	2968.54	106867
		U_{14} - L_{15}	2.50	4.15	4.16	6.98	5.71	9.46	2.50	4.17	4.17	6.95	5.66	9.51	2.52	4.17	4.18	6.99	5.67	9.45	89.95	149.56	456.3	16425	760.42	27375
		U_{17} - L_{16}	1.86	3.08	2.82	4.69	3.35	5.57	1.86	3.08	2.83	4.71	3.35	5.57	1.87	3.08	3.57	5.93	3.36	5.63	67.03	110.97	363.3	13078	605.47	21797
		U_{16} - L_{17}	2.00	3.33	3.44	5.70	3.72	6.18	2.00	3.33	3.41	5.69	3.72	6.18	2.01	3.33	3.44	5.73	3.72	6.18	72.17	119.78	206.0	7416	343.33	12360
		U_{18} - L_{19}	1.93	3.20	3.54	5.97	3.86	6.51	1.93	3.21	3.54	5.97	3.86	6.51	1.93	3.20	3.54	5.93	3.86	6.51	69.34	115.13	221.2	7963	368.65	13271
		U_{20} - L_{19}	2.12	3.53	3.39	5.64	3.75	4.69	7.59	12.61	3.42	5.69	3.78	5.01	2.12	3.53	3.42	5.69	3.78	4.72	76.20	127.13	519.7	18711	866.23	31184
	Structure 2	U_0 - L_1	3.00	4.99	3.29	5.44	2.36	3.96	2.97	5.01	3.29	5.50	6.70	9.84	2.97	5.01	3.29	5.50	2.35	3.90	84.57	140.38	242.7	8736	404.46	14561
		U_1 - L_2	3.04	5.08	3.34	5.56	2.30	3.82	3.07	5.08	3.34	5.56	2.30	3.82	3.04	5.08	3.34	5.56	2.31	3.81	82.71	137.10	243.7	8773	406.15	14622
		U_2 - L_3	2.57	4.31	3.32	5.53	2.24	3.78	2.57	4.31	3.32	5.53	2.24	3.78	2.57	4.31	3.34	5.54	2.26	3.76	80.75	135.46	202.9	7306	338.24	12176
		U_3 - L_4	2.48	4.15	3.43	5.79	2.29	3.79	2.48	4.15	3.43	5.79	2.29	3.79	2.48	4.14	3.67	6.10	2.28	3.82	82.05	136.62	347.4	12505	578.96	20842
		U_4 - L_5	2.99	4.95	4.04	6.74	3.43	5.68	2.99	4.95	4.09	6.81	3.43	5.68	2.99	4.95	4.08	6.79	3.42	5.73	107.55	178.34	381.9	13749	636.54	22916
		U_5 - L_6	4.27	7.13	5.77	9.64	5.15	8.57	4.25	7.08	5.76	9.67	5.13	8.61	4.24	7.06	5.68	9.56	5.14	8.59	152.81	254.32	530.0	19079	883.29	31798
		U_6 - L_7	4.99	8.32	3.84	6.41	4.21	7.02	5.98	9.98	5.32	8.81	3.90	6.48	5.03	8.28	4.48	7.47	4.21	7.01	138.41	230.64	1446.1	52061	2410.24	86768
		U_7 - L_7	3.43	5.72	3.84	6.39	3.26	5.41	3.40	5.71	3.85	6.43	3.28	5.42	3.46	5.72	5.21	8.59	4.25	7.03	117.35	194.75	453.6	16329	755.99	27216
		U_8 - L_8	2.05	3.39	3.32	5.50	2.63	4.38	2.06	3.43	3.32	5.50	2.63	4.36	2.05	3.39	3.31	5.55	2.34	3.89	73.92	122.03	241.0	8676	401.68	14461
		U_8 - L_9	2.24	3.73	2.94	4.89	2.44	4.05	2.24	3.73	2.94	4.89	3.04	4.72	2.24	3.73	2.91	4.86	2.44	4.05	80.60	134.43	243.5	8764	405.76	14607
		U_{11} - L_{10}	2.08	3.44	3.40	5.66	2.69	4.55	2.07	3.43	3.12	5.18	2.73	4.55	2.08	3.44	3.39	5.66	2.90	4.76	74.50	123.53	231.5	8335	385.90	13892
		U_{12} - L_{11}	2.09	3.47	2.45	4.09	2.58	4.29	2.04	3.41	2.43	4.04	2.60	4.34	2.09	3.49	2.46	4.10	2.65	4.42	73.53	122.92	232.0	8353	386.72	13922
		U_{13} - L_{12}	1.80	3.00	2.20	3.66	2.59	4.39	1.79	3.00	2.21	3.66	2.59	4.31	1.80	3.00	2.22	3.67	2.59	4.39	64.39	107.94	204.6	7367	341.06	12278
		U_{14} - L_{13}	2.18	3.63	2.74	4.51	4.14	6.94	2.18	3.66	3.18	5.29	3.73	6.21	2.34	3.94	2.70	4.55	4.10	6.87	78.45	130.62	306.1	11019	510.12	18364
		U_{14} - L_{15}	3.39	5.69	3.57	5.95	2.87	4.76	4.17	6.99	3.77	6.29	2.82	4.76	3.40	5.65	3.57	5.95	2.79	4.63	100.30	166.82	457.9	16483	763.11	27472
		U_{15} - L_{16}	2.69	4.48	2.75	4.60	1.95	3.20	2.71	4.47	2.75	4.60	1.95	3.20	2.71	4.47	2.75	4.60	1.96	3.26	70.37	115.20	224.6	8084	374.25	13473
		U_{16} - L_{17}	2.18	3.63	2.65	4.39	2.45	4.10	2.18	3.64	2.65	4.39	2.40	4.02	2.19	3.64	2.65	4.39	2.57	4.30	78.42	130.85	191.4	6892	319.07	11487
		U_{17} - L_{18}	1.99	3.29	2.56	4.28	2.34	3.84	1.97	3.28	2.56	4.28	2.27	3.80	1.99	3.27	2.58	4.29	2.33	3.88	70.76	117.77	175.2	6305	291.92	10509
		U_{18} - L_{19}	2.78	4.59	4.06	6.78	2.68	4.46	3.02	5.04	3.28	5.47	2.71	4.46	3.02	5.03	3.28	5.47	2.68	4.46	96.52	160.53	222.3	8001	370.43	13335
		U_{19} - L_{20}	2.89	4.78	4.11	6.80	2.73	4.55	2.89	4.78	4.06	6.77	2.73	4.55	2.89	4.78	4.07	6.86	3.91	6.51	98.29	163.72	236.2	8503	393.64	14171
		U_{20} - L_{21}	2.71	4.49	3.27	5.45	4.25	7.10	2.69	4.48	3.27	5.45	4.23	7.01	2.71	4.49	3.20	5.33	4.27	7.11	96.68	161.20	376.0	13536	626.67	22560
		U_{21} - L_{22}	4.53	7.55	4.85	8.06	5.58	9.38	4.53	7.55	5.00	8.34	6.77	11.27	6.43	10.68	9.03	14.90	7.70	12.81	163.19	271.71	805.8	29010	1343.07	48350
		U_{21} - L_{22}	5.20	8.58	5.63	9.44	5.26	8.74	5.18	8.60	5.52	9.16	5.25	8.76	6.54	10.86	7.93	13.19	6.52	10.87	164.45	308.82	1160.9	41791	1934.79	69652
		U_{24} - L_{23}	2.30	3.87	3.57	5.96	3.50	5.85	2.32	3.87	3.57	5.96	3.49	5.82	2.31	3.83	3.62	6.01	3.38	5.65	82.80	137.80	448.1	16132	746.87	26887
		U_{25} - L_{24}	2.49	4.20	3.48	5.82	2.43	4.06	2.51	4.17	3.48	5.82	2.44	4.06	2.51	4.16	4.34	7.22	2.45	4.06	87.51	146.14	247.3	8902	412.15	14837
		U_{26} - L_{25}	2.49	4.13	3.56	5.89	2.63	4.40	2.48	4.15	3.53	5.89	2.62	4.40	2.49	4.13	3.66	6.14	2.63	4.40	89.24	148.54	223.4	8044	372.41	13407
		U_{27} - L_{26}	2.05	3.42	2.32	3.86	2.41	4.04	2.03	3.36	2.33	3.86	2.43	4.02	2.05	3.43	2.37	3.93	2.45	4.08	73.26	120.86	182.6	6573	304.30	10955
		U_{28} - L_{27}	2.00	3.36	2.41	4.06	2.62	4.33	2.00	3.33	2.40	4.01	2.62	4.33	2.00	3.36	2.42	4.04	2.64	4.37	72.08	119.84	182.0	6553	303.36	10921
		U_{29} - L_{28}	2.21	3.69	2.15	3.61	2.84	4.70	2.22	3.69	2.15	3.61	2.82	4.69	2.12	3.54	2.15	3.61	2.84	4.70	76.50	127.46	194.9	7018	324.90	11697
		U_{30} - L_{29}	2.67	4.45	2.78	4.65	4.11	5.89	2.94	4.89	3.52	5.86	5.37	8.90	2.90	4.83	2.76	4.61	4.11	6.89	96.10	160.31	372.3	13404	620.56	22340
		U_{31} - L_{31}	3.43	5.68	3.43	5.76	2.79	4.63	3.88	6.51	3.67	6.13	2.77	4.67	3.44	5.71	3.43	5.76	2.82	4.70	99.55	166.86	421.9	15190	703.24	25317
		U_{31} - L_{32}	2.57	4.30	2.72	4.52	2.07	3.46	2.57	4.30	2.72	4.52	2.05	3.44	2.57	4.30	2.72	4.52	2.08	3.49	73.77	123.83	225.7	8126	376.21	13544
		U_{32} - L_{33}	2.50	4.17	2.88	4.80	2.42	4.03	2.50	4.17	2.89	4.80	2.41	4.03	2.50	4.17	2.88	4.79	2.44	4.05	86.58	145.01	226.2	8144	377.02	13573
		U_{33} - L_{34}	2.99	4.99	3.90	6.47	2.41	4.00	2.98	4.96	3.90	6.47	2.37	3.95	3.70	6.21	3.61	6.02	3.48	5.81	85.49	142.29	248.9	8962	414.89	14936
		U_{34} - L_{35}	2.99	4.96	4.18	6.96	2.59	4.31	2.99	4.96	4.09	6.79	2.90	4.34	2.98	4.97	4.17	6.91	3.61	5.97	93.26	155.22	249.5	8981	415.79	14968
		U_{35} - L_{36}	2.86	4.73	3.53	5.92	2.55	4.18	2.86	4.77	3.53	5.92	2.55	4.17	2.86	4.73	3.55	5.90	3.42	5.67	91.64	150.12	216.4	7791	360.71	12986
		U_{36} - L_{37}	3.44	5.70	3.27	5.43	4.39	7.32	3.45	5.73	3.27	5.44	3.29	5.44	4.78	7.98	6.39	10.56	4.39	7.34	117.81	195.50	327.4	11787	545.68	19645
		U_{37} - L_{37}	3.89	6.46	5.88	9.80	4.42	7.37	4.85	8.10	7.25	12.02	5.17	8.66	3.89	6.49	7.24	12.04	4.56	7.59	139.92	232.66	1274.1	45867	2123.47	76445
		U_{38} - L_{38}	3.79	6.27	5.53	9.22	5.44	9.09	3.78	6.26	5.50	9.19	5.42	9.10	3.79	6.28	5.53	9.20	5.45	9.05	136.14	225.51	786.7	28322	1311.23	47204
		U_{39} - L_{39}	2.89	4.84	3.28	5.47	3.50	5.84	2.89	4.81	3.31	5.49	3.50	5.84	2.90	4.83	4.23	7.07	3.50	5.84	103.87	173.19	418.8	15078	698.03	25129
		U_{41} - L_{40}	2.22	3.68	3.26	5.41	2.49	4.14	2.22	3.67	3.25	5.40	2.49	4.14	2.20	3.68	3.23	5.39	2.49	4.14	79.36	132.17	342.1	12315	570.16	20526
		U_{42} - L_{41}	2.25	3.76	3.33	5.49	2.58	4.25	2.25	3.76	3.32	5.57	2.56	4.31	2.25	3.77	3.32	5.51	2.58	4.25	81.03	135.41	190.4	6856	317.41	11427
		U_{42} - L_{42}	2.42	4.02	3.65	6.10	3.26	5.43	2.41	4.00	3.65	6.10	3.28	5.39	2.42	4.02	3.62	6.05	3.26	5.43	86.81	144.06	198.7	7152	331.10	11920
		U_{44} - L_{43}	2.53	4.21	3.48	5.82	3.44	5.76	8.11	13.49	3.49	5.78	3.44	5.81	2.52	4.20	3.50	5.79	3.48	5.83	90.88	151.33	430.9	15514	718.22	25856
	Structure 3	U_0 - L_1	3.09	5.16	3.56	5.94	2.46	4.07	3.09	5.14	3.54	5.91	8.73	10.82	3.09	5.14	3.54	5.91	2.46	4.10	88.54	146.57	264.0	9506	440.08	15843
		U_1 - L_2	3.29	5.48	3.68	6.14	2.29	3.85	3.25	5.50	3.68	6.14	2.29	3.85	3.25	5.42	3.68	6.14	2.31	3.82	82.51	137.43	288.1	10373	480.21	17288
		U_2 - L_3	3.06	5.06	4.16	6.95	2.49	4.12	3.06	5.06	4.00	6.59	2.48	4.15	3.07	5.12	4.13	6.95	2.49	4.12	89.39	148.44	225.1	8104	375.17	13506
		U_3 - L_4	2.70	4.53	3.63	6.03	2.24	3.74	2.69	4.52	3.61	6.02	2.24	3.74	2.70	4.53	3.63	6.03	2.23	3.71	80.39	133.53	376.7	13560	627.80	22601
		U_4 - L_5	3.42	5.70	3.95	6.59	8.08	10.11	3.42	5.70	3.95	6.59	3.22	5.20	3.42	5.68	3.96	6.56	8.08	10.11	116.05	187.16	405.1	14585	675.23	24308
		U_5 - L_6	5.82	9.74	6.49	10.75	4.04	6.77	5.83	9.69	6.54	10.91	4.34	6.92	9.85	16.48	12.69	21.15	4.06	6.77	145.42	243.58	1102.0	39673	1836.70	66121
		U_7 - L_6	2.47	4.11	2.77	4.63	3.25	5.42	2.45	4.10	2.77	4.62	3.25	5.41	3.09	5.18	2.95	4.90	2.96	4.86	88.21	147.69	766.3	27587	1277.19	45979
		U_8 - L_7	2.07	3.45	3.02	5.00	3.56	5.98	2.08	3.44	3.02	5.01	3.75	6.28	2.08	3.47	3.01	4.99	3.55	5.94	74.57	124.01	264.1	9508	440.17	15846
		U_8 - L_9	2.42	4.01	3.27	5.44	4.04	6.70	2.56	4.28	3.54	5.88	4.25	6.74	2.43	4.06	3.81	6.36	4.04	6.75	87.14	144.49	301.9	10870	503.22	18116
		U_{10} - L_9	2.75	4.57	3.82	6.33	4.45	7.38	2.85	4.76	4.07	6.80	4.75	7.45	2.73	4.54	3.83	6.38	4.43	7.47	98.23	163.47	239.2	8609	398.58	14349
		U_{11} - L_{10}	2.86	4.72	3.63	6.04	3.79	6.33	2.77	4.61	3.62	6.04	3.77	6.36	2.86	4.72	3.61	6.01	4.78	6.19	99.88	166.10	219.0	7883	364.94	13138
		U_{12} - L_{11}	2.91	4.86	3.55	5.94	4.40	5.65	2.85	4.76	3.73	6.26	5.18	6.72	3.08	5.11	3.46	5.78	4.38	5.65	102.57	171.35	345.4	12434	575.64	20723
		U_{12} - L_{13}	3.38	5.60	3.37	5.65	2.86	4.77	3.76	6.27	3.72	6.21	2.82	4.68	3.36	5.61	3.40	5.64	2.90	4.78	101.63	168.30	354.1	12748	590.17	21246
		U_{13} - L_{14}	3.21	5.39	3.28	5.47	2.54	4.30	3.37	5.65	3.29	5.49	2.55	4.26	3.23	5.39	3.28	5.47	2.93	4.87	91.54	153.34	196.1	7061	326.91	11769
		U_{14} - L_{15}	2.69	4.48	3.14	5.24	3.74	4.67	3.29	5.48	3.79	6.33	3.95	4.90	2.68	4.47	3.14	5.23	3.74	4.70	96.52	160.77	218.4	7861	363.94	13102
		U_{15} - L_{16}	2.51	4.17	2.89	4.83	5.88	7.38	2.95	4.90	3.34	5.53	5.13	7.37	2.96	4.93	4.64	7.74	5.09	7.48	90.49	149.97	541.6	19498	902.68	32497
		U_{17} - L_{16}	4.35	7.25	4.98	8.35	5.15	6.51	4.14	6.90	6.18	10.28	6.12	10.23	6.31	10.52	5.96	9.93	6.05	10.07	149.07	234.49	1581.0	56917	2635.03	94861
		U_{18} - L_{17}	3.61	5.96	7.05	11.71	8.19	13.67	3.58	5.96	4.68	7.76	8.16	13.67	4.91	8.20	5.44	9.04	8.37	13.97	128.97	214.59	931.6	33538	1552.70	55897
		U_{19} - L_{18}	2.93	4.86	3.81	6.38	7.05	11.75	2.93	4.86	3.80	6.34	7.05	11.75	2.92	4.86	5.21	8.71	7.04	11.79	104.99	175.05	476.1	17140	793.50	28566
		U_{20} - L_{19}	3.10	5.16	3.98	6.66	6.11	7.65	2.99	5.01	3.98	6.65	6.08	7.93	7.29	12.15	3.98	6.65	6.07	7.60	107.80	180.26	372.6	13414	621.02	22357